The University of Bridgeport admits students regardless of sex, race, color, creed, or national or ethnic origin to all the rights, privileges, programs and activities generally accorded or made available to students of the University. The University of Bridgeport does not discriminate on the basis of gender, sexual orientation, age, race, color, national or ethnic origin, creed, political affiliation, or disability in the administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other University administered programs. The University of Bridgeport is an equal opportunity employer.

Every effort is made to ensure the accuracy of the information in this catalog, but the University of Bridgeport reserves the right to make changes without prior notice. The most current version of the catalog is available on the University website (www.bridgeport.edu). The University of Bridgeport provides the information herein solely for the convenience of the reader and, to the extent permissible by law, expressly disclaims the creation of a contract or any liability which may otherwise be incurred. The use of the words “he” and “she” refers to any members of the University community.

Catalog of the University of Bridgeport, September 1, 2014.

Published by the University of Bridgeport.

Postage paid Bridgeport, Connecticut.
President’s Message

Welcome to the University of Bridgeport! You are about to become part of one of America’s truly unique institutions of higher learning. As the University’s President, I travel quite often and enjoy telling people about the “UB advantage.”

Our students embark upon a journey that will prepare them for a career and also prepare them to better understand the world and their place in it. Here at UB we have students from 81 different countries and 45 states. Nowhere in America will you find so many students from so many different countries and in so intimate a campus setting.

Whether you come to UB to acquire a high quality liberal arts education, study international public service, you will begin to interact with people from all corners of the world. The average class size of 16 students helps ensure that every student gets the necessary attention from the professors as well as a chance to participate in exciting, challenging discussions. The cross-fertilization of cultures and ideas is an everyday experience for our students and creates what biologists call “hybrid vigor.”

Whether you come to UB to acquire a high quality liberal arts education, a knowledge of computer science and engineering, academic training in business, the arts or the healing sciences, you will certainly leave here with more than that. You will have the opportunity to gain a global perspective on world issues and cultures.

We at the University of Bridgeport believe that the object of education, beyond career training, is character development. We encourage our students to involve themselves in one of our many student clubs, a theater production, student government or community service. It is often in these extracurricular activities one has the opportunity to explore and develop as yet untapped aspects of our character.

The hallmark of a truly educated person is one who applies their knowledge to serving their community. That is what I call the “UB experience.”

It is our sincere hope that you will come to call UB your home. Our beautiful campus, located in historic New England, has a proud 8 decade long tradition of educating students who have made a difference in the world. We encourage our students to take advantage of the many opportunities afforded them here on campus and in the region. We hope they also take the time to explore nearby New York City’s many cultural offerings.

Enrollment begins a lifelong association with UB, first as students and later as loyal alumni. I always appreciate your feedback and look forward to getting to know you.

Sincerely,

Neil Albert Salonen
Correspondence

Mailing Address
UNIVERSITY OF BRIDGEPORT
Bridgeport, Connecticut 06604
Telephone Number: 203-576-4000
Toll Free in CT: 1-800-972-9488
Toll Free in NY, NJ, PA, MA, NH, VT, RI: 1-800-243-9496
Specific inquiries should be addressed as follows:

ADMISSIONS INFORMATION
Office of Admissions
126 Park Avenue
Bridgeport, CT 06604
1-800-EXCEL-UB (1-800-392-3582)
(203) 576-4552
E-mail: admit@bridgeport.edu

COLLEGE OF CHIROPRACTIC
ADMISSIONS
(888) UB-CHIRO
E-mail: chiro@bridgeport.edu

COLLEGE OF NATUROPATHIC MEDICINE ADMISSIONS
(203) 576-4108
E-mail: natmed@bridgeport.edu

ACUPUNCTURE INSTITUTE ADMISSIONS
(203) 576-4109
E-mail: acup@bridgeport.edu

BILLING INFORMATION AND PAYMENTS
Bursar (203) 576-4472
Fax: (203) 576-4581
E-mail: bursar@bridgeport.edu

SCHOLARSHIPS AND STUDENT FINANCIAL SERVICES
(203) 576-4568
Fax: (203) 576-4570
E-mail: finaid@bridgeport.edu

STUDY ABROAD
(203) 576-4699
E-mail: studyabroad@bridgeport.edu

STUDENT DEVELOPMENT
Dean of Students
(203) 576-4393
Fax: (203) 576-4394
E-mail: deanofstudents@bridgeport.edu

COUNSELING SERVICES
(203) 576-4175
Fax: (203) 576-4200
E-mail: counseling@bridgeport.edu

TRANSCRIPTS AND ACADEMIC RECORDS
Office of the Registrar
(203) 576-4634
Fax: (203) 576-4941
E-mail: registrar@bridgeport.edu

For more information specific to one of the colleges or divisions, you may write or call the appropriate dean or director.

ACADEMIC RESOURCE CENTER
(203) 576-4290
E-mail: arc@bridgeport.edu

ACUPUNCTURE INSTITUTE
(203) 576-4122
E-mail: acup@bridgeport.edu

COLLEGE OF CHIROPRACTIC
(203) 576-4279
Fax: (203) 576-4351
E-mail: chiro@bridgeport.edu

COLLEGE OF NATUROPATHIC MEDICINE
(203) 576-4108
Fax: (203) 576-4941
E-mail: natmed@bridgeport.edu

COLLEGE OF PUBLIC AND INTERNATIONAL AFFAIRS
(203) 576-4966
Fax: (203) 576-4967
E-mail: ubcpia@bridgeport.edu

ENGLISH LANGUAGE INSTITUTE
(203) 576-4860
Fax: (203) 576-4861
E-mail: esl@bridgeport.edu

FONES SCHOOL OF DENTAL HYGIENE
(203) 576-4138
Fax: (203) 576-4220
E-mail: fones@bridgeport.edu

NUTRITION INSTITUTE
(203) 576-4667
E-mail: nutrition@bridgeport.edu

PHYSICIAN ASSISTANT INSTITUTE
(203) 576-2399
Fax (203) 576-2400
E-mail: cervonka@bridgeport.edu

SCHOOL OF ARTS AND SCIENCES
(203) 576-4271
Fax Number: (203) 576-4051
E-mail: artsandsciences@bridgeport.edu

SCHOOL OF CONTINUING AND PROFESSIONAL STUDIES
IDEAL PROGRAM
(203) 576-4800
E-mail: idealinfo@bridgeport.edu
www.bridgeport.edu/ideal

GLI - GLOBAL LEARNING INITIATIVES
(203) 576-4851
E-mail: ubonline@bridgeport.edu

UB STAMFORD CENTER
5 Riverbend Drive
Stamford, CT 06907-4585
(203) 358-0700
Fax: (203) 967-3735
E-mail: ubstamford@bridgeport.edu

UB WATERBURY CENTER
(203) 576-4851
E-mail: ubwaterbury@bridgeport.edu

ERNEST C. TREFZ SCHOOL OF BUSINESS
(203) 576-4384
Fax: (203) 576-4388
E-mail: mba@bridgeport.edu

SCHOOL OF EDUCATION
(203) 576-4219
Fax: (Dean): (203) 576-4102
E-mail: education@bridgeport.edu

SCHOOL OF ENGINEERING
(203) 576-4111
Fax Number: (203) 576-4766
E-mail: engr@bridgeport.edu

For all other information,
Call (203) 576-4000
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Academic Calendar

**Fall Semester 2014**
(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

- **Monday, August 25**
  *Classes Begin*

- **Monday, September 1**
  *No Classes — Labor Day*

- **Monday – Friday, October 13 – 17**
  *Mid-Semester Examination Week*

- **Wednesday – Sunday, November 26 – 30**
  *Thanksgiving Recess — No Classes*

- **Friday, December 5**
  *Last Day of Classes*

- **Monday – Friday, December 8 – 12**
  *Final Examination Week*

- **Monday, December 15**
  *Final Grades Due (Undergraduate/Graduate)*

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**Spring Semester 2015**
(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

- **Monday, January 19**
  *No Classes — Martin Luther King Day*

- **Tuesday, January 20**
  *Classes Begin*

- **Monday, February 16**
  *No Classes/Office Closed — President’s Day*

- **Sunday – Sunday, March 15 – 22**
  *Spring Break — No Classes*

- **Friday, May 1**
  *Last Day of Classes*

- **Monday – Friday, May 4 – 8**
  *Final Examination Week*

- **Saturday, May 9**
  *Commencement*

- **Monday, May 11**
  *Final Grades Due (Undergraduate/Graduate)*
Academic Calendar

**Fall Semester 2015**
(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

Monday, August 24  
*Classes Begin*

Monday, September 7  
*No Classes — Labor Day*

Monday – Friday, October 12 – 16  
*Mid-Semester Examination Week*

Wednesday – Sunday, November 25 – 29  
*Thanksgiving Recess - No Classes*

Friday, December 4  
*Last Day of Classes*

Monday – Friday, December 7 – 11  
*Final Examination Week*

Monday, December 14  
*Final Grades Due (Undergraduate/Graduate)*

**Spring Semester 2016**
(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

Monday, January 18  
*No Classes — Martin Luther King Day*

Tuesday, January 19  
*Classes Begin*

Monday, February 15  
*No Classes/Office Closed — President’s Day*

Sunday – Sunday, March 13 – 20  
*Spring Break — No Classes*

Friday, April 29  
*Last Day of Classes*

Monday – Friday, May 2 – 6  
*Final Examination Week*

Saturday, May 7  
*Commencement*

Monday, May 9  
*Final Grades Due (Undergraduate/Graduate)*
Health Sciences Academic Calendar

**Fall Semester 2014**

(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

Monday, August 11  
*Classes Begin for Health Sciences*

Monday, September 1  
*No Classes — Labor Day*

Wednesday – Sunday, November 26 – 30  
*Thanksgiving Recess — No Classes*

Friday, December 5  
*Last Day of Classes*

Sunday, December 7  
*UB, College of Chiropractic Graduation*

Monday – Friday, December 8 – 12  
*Final Examination Week*

Monday, December 15  
*Final Grades Due*

**Spring Semester 2015**

(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

Monday, January 12  
*Classes Begin for Health Sciences*

Monday, January 19  
*No Classes — Martin Luther King Day*

Monday, February 16  
*No Classes/Office Closed — President’s Day*

Sunday – Sunday, March 15 – 22  
*Spring Break — No Classes*

Friday, May 15  
*Last Day of Classes for Health Sciences*

Monday-Friday, May 18 – 22  
*Final Examination Week for Health Sciences*

Monday, May 11  
*Commencement for Health Sciences*

Monday, May 25  
*Final Grades Due*
Health Sciences Academic Calendar

**Fall Semester 2015**

(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

- **Monday, August 10**
  *Classes Begin for Health Sciences*

- **Monday, September 7**
  *No Classes – Labor Day*

- **Wednesday – Sunday, November 25 – 29**
  *Thanksgiving Recess – No Classes*

- **Friday, December 4**
  *Last Day of Classes*

- **Sunday, December 6**
  *UB, College of Chiropractic Graduation*

- **Monday – Friday, December 7 – 11**
  *Final Examination Week*

- **Monday, December 14**
  *Final Grades Due*

**Spring Semester 2016**

(Every effort is made to ensure the accuracy of the information contained in the Academic Calendar, but the University of Bridgeport reserves the right to make changes without prior notice.)

- **Monday, January 11**
  *Classes Begin for Health Sciences*

- **Monday, January 18**
  *No Classes — Martin Luther King Day*

- **Monday, February 15**
  *No Classes/Office Closed — President’s Day*

- **Sunday – Sunday, March 13 – 20**
  *Spring Break — No Classes*

- **Friday, May 13**
  *Last Day of Classes for Health Sciences*

- **Monday-Friday, May 16 – 20**
  *Final Examination Week for Health Sciences*

- **Monday, May 9**
  *Commencement for Health Sciences*

- **Monday, May 23**
  *Final Grades Due*
Programs of Study

Undergraduate Programs

FONES SCHOOL OF DENTAL HYGIENE
Dental Hygiene (A.S., B.S.)

SCHOOL OF ARTS AND SCIENCES
Biology (B.A., B.S.)
English (B.A., B.S.)
  Creative Writing
  Literature
Fashion Merchandising (A.A., B.S.)
General Studies (A.A., A.S.)
General Studies (B.S.)
  Business Studies
  Health Sciences
  Humanities
  Natural Sciences and Mathematics
  Science, Engineering and Computer Related Fields
  Social Sciences
Gerontology (Cert)
Health Sciences (B.S.)
  Community Health Education
  Exercise & Fitness
  Nutrition
Pre-Professional Programs
  Pre-Acupuncture
  Pre-Chiropractic
  Pre-Dental
  Pre-Medicine
  Pre-Naturopathic Medicine
  Pre-Nursing
  Pre-Pharmacy
  Pre-Physician Assistant
  Pre-Veterinary
Human Services (B.S.)
Literature and Civilization (B.A.)
  Creative Writing
  English
  History
  Philosophy
Mathematics (B.A., B.S.)
Medical Laboratory Science (B.S.)
Medical Laboratory Science (Cert)
Music (B.Mus.)
  Music Business
  Music Education
  Music Performance
Professional Studies (B.P.S.)
  Organizational Leadership and Change
  Healthcare Administration
  Human Resource Administration
Psychology (B.S.)

ERNEST C. TREFZ SCHOOL OF BUSINESS
Accounting (B.S.)
Business Administration (A.A., B.S.)
Finance (B.S.)
International Business (B.S.)
Management & Industrial Relations (B.S.)
Marketing (B.S.)
Human Resource Management (Cert)

SCHOOL OF ENGINEERING
Computer Engineering (B.S.)
Computer Science (B.S.)
Electrical Engineering (B.S.)

COLLEGE OF PUBLIC AND INTERNATIONAL AFFAIRS
Criminal Justice and Human Security (B.A.)
  Comparative Justice
  Criminology
  Human Security
Criminal Justice (Cert)
International Political Economy and Diplomacy (B.A.)
  Americas Studies
  Asia-Pacific Studies
  Middle East Studies
  Peace and Development Studies
Martial Arts Studies (B.A.)
  Judo
  Tae Kwan Do
  Tai Ji
Mass Communication (B.A.)
  Advertising
  Communication
  Fashion Journalism
  Journalism
  International Communication
  Sports Journalism
  Public Relations
Social Sciences (B.A.)
  Criminal Justice
  History
  International Studies
  Political Science
  Pre-Law
  Psychology
  Sociology
Religion and Politics (B.A.)
  East Asian Religion and Society
  Islamic Religion and Society
  Judeo-Christian Thought and Society

SHINTARO AKATSU SCHOOL OF DESIGN
Graphic Design (B.F.A.)
  New Media
  Industrial Design (B.S.)
  Interior Design (B.S.)
Programs of Study

Graduate Programs

SCHOOL OF ARTS AND SCIENCES
Counseling (M.S.)
   Clinical Mental Health Counseling
   Student Personnel
Counseling (6th Year)

ERNEST C. TREFZ SCHOOL OF BUSINESS
General Business (M.B.A.)
   Accounting
   Finance
   Human Resource Management
   International Business
   Management
   Marketing
Executive Business Administration (E.M.B.A.)

SCHOOL OF EDUCATION
Elementary Education (M.S.)
Secondary Education (M.S.)
Elementary Education (C.A.S.-6th Year)
Secondary Education (C.A.S.-6th Year)
Educational Administration and Supervision (C.A.S.-6th Year)
Remedial Reading and Remedial Language Arts (C.A.S.-6th Year)
Educational Leadership (Ed.D.)

SCHOOL OF ENGINEERING
Biomedical Engineering (M.S.)
Computer Engineering (M.S.)
Computer Science (M.S.)
Electrical Engineering (M.S.)
Mechanical Engineering (M.S.)
Technology Management (M.S.)
   Bio-Technology Management
   Global Program & Project Management
   Manufacturing Management
   New Product Development, Management and Commercialization
   Quality Management & Continuous Improvement
   Supply Chain, Logistics and Service Management
Computer Science and Engineering (Ph.D.)
Technology Management (Ph.D.)

COLLEGE OF PUBLIC AND INTERNATIONAL AFFAIRS
East Asian Pacific Rim Studies (M.A.)
   Global Communication
   Global Management
   International Political Economy and Development
   Negotiation and Diplomacy
Global Development and Peace (Grad Certificate)
Global Development and Peace (M.A.)
   Conflict Analysis and Resolution
   Global Communication
   Global Management
   International Political Economy and Development
Global Media and Communication Studies Studies (M.A.)
   Global Communication
   New Media Communication

SHINTARO AKATSU SCHOOL OF DESIGN
Design Management (M.P.S.)

For graduate degree interdisciplinary concentrations and professional certificates please see the GRADUATE STUDIES DIVISION of this Catalogue.

Health Sciences Programs

ACUPUNCTURE INSTITUTE
Acupuncture (M.S.)
Chinese Herbology (M.S.)
Traditional Chinese Medicine (M.S.)

COLLEGE OF CHIROPRACTIC
Chiropractic (D.C.)

COLLEGE OF NATUROPATHIC MEDICINE
Naturopathic Medicine (N.D.)

FONES SCHOOL OF DENTAL HYGIENE
Dental Hygiene (M.S.)
   Dental Hygiene Administration and Management
   Dental Hygiene Education
   Dental Hygiene Practice
   Dental Public Health

NUTRITION INSTITUTE
Human Nutrition (M.S.)

PHYSICIAN ASSISTANT INSTITUTE
Physician Assistant (M.S.)
General Information
Introduction

Mission
The University of Bridgeport offers career-oriented undergraduate, graduate, and professional degrees and programs for people seeking personal and professional growth. The University promotes academic excellence, personal responsibility and commitment to service. Distinctive curricula in an international, culturally diverse supportive learning environment prepare graduates for life and leadership in an increasingly interconnected world. The University is independent and non-sectarian.

History
The University of Bridgeport was founded in 1927 as the Junior College of Connecticut — the first junior college chartered by any legislature in the northeastern states. The college had as its purpose, in the words of the founders, to develop in students a point of view and a habit of mind that promotes clear thinking and sound judgment in later professional and business experience. Although UB has changed in many ways since then, this commitment to student preparation and community service remains central to its mission.

The University of Bridgeport was founded as the Junior College of Connecticut in 1927. It has grown from 22 to 53 acres, from 250 to nearly 3,500 students, including a number of international students, taught by a faculty of 183 men and women. In 1951 the University awarded its first Master's degree. In 1953 the University expanded its programs when Arnold College, the oldest co-educational school of physical education in the United States, merged with and was incorporated into the College of Education.

In January 1979 UB inaugurated its first doctoral degree program, Educational Leadership, and in 1991 the College of Chiropractic was established, representing the first affiliation of a chiropractic school with a university in the United States. In 1992 significant financial support from the Professors World Peace Academy (PWPA), a non-profit organization of academicians dedicated to world peace through education, enabled the University of Bridgeport to continue its programs in the aftermath of a major labor dispute. In 1996 the University established the College of Naturopathic Medicine. In 2005 the Ph.D. in Computer Science and Engineering was added.

University of Bridgeport Today
The University today continues its commitment to excellence as it maintains its tradition of responding to the changing needs of society through the liberal arts and its professional programs. Programs are focused so that students receive the kind of personal advising and attention usually found only at small colleges. Furthermore, the University takes full advantage of its location in a progressive urban setting, using regional resources as “living laboratories” to supplement the traditional academic instruction offered on the campus. Through co-operative education programs, students can learn from experience by integrating classroom studies on campus with supervised employment in industrial, service, and government sectors.

The University through its schools and colleges offers a variety of undergraduate and graduate degree programs from associate through doctoral levels. In addition, the University’s College of Chiropractic awards the Doctor of Chiropractic degree, College of Naturopathic Medicine awards the Doctor of Naturopathic Medicine and Acupuncture awards the Master of Science in Acupuncture.

The IDEAL Program of the School of Continuing and Professional Education offers undergraduate courses with flexible scheduling for part-time adult students, at the main campus, at the branch campus in Stamford, CT, and in Waterbury, CT.

The University sees its student body as a valuable resource. Approximately 5,000 students were enrolled in 2012-2013, sixty percent of whom are full-time, coming from 45 states and 86 foreign countries and representing a rich diversity of ethnic and cultural backgrounds.

Faculty
The UB instructional staff consists of 121 full-time faculty, and nearly all hold doctoral or terminal degrees in their fields. The regular faculty is augmented by approximately 370 adjunct faculty.

Faculty honors include Fulbright Scholars, National Science Foundation Fellows, Ford Scholars, National Endowment for the Humanities Fellows, American Council for Learned Societies Scholars, Phi Beta Kappa Scholars, Phi Kappa Phi Scholars and Sigma Xi Scholars.

Accreditations and Memberships
The University of Bridgeport is accredited by the New England Association of Schools and Colleges.

The University also is accredited by the Office of Connecticut of Higher Education.

The University’s programs have been granted by the following accrediting bodies in the areas noted:

The Educator Preparation Programs are accredited by the Connecticut State Department of Education under NCATE standards.

Council of Dental Education of the American Dental Association — associate (A.S.) degree program in Dental Hygiene.

Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology — baccalaureate (B.S.) degree program in Computer Engineering.

The Accreditation Commission for Acupuncture and Oriental Medicine, candidacy for accreditation, Master of Science in Acupuncture (MS-Acup).

Commission on Accreditation of the Council on Chiropractic Education — doctoral
Introduction

(D.C.) degree program in Chiropractic.
Council on Naturopathic Medical Education-doctoral (N.D.) degree program in Naturopathic Medicine

The University of Bridgeport is an accredited institutional member of the National Association of Schools of Art and Design.
The Association of Collegiate Business Schools and Programs have accredited the Bachelor of Science (B.S.) and the Master of Business Administration (M.B.A.) programs.

Accreditation Review Commission on Education for Physician Assistant (ARC-PA)

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) – B.S. Medical Laboratory Science: the University of Bridgeport Medical Laboratory Science program has completed all requirements for recognition as a serious applicant for Initial Accreditation with the NAACLS and students graduating from the program will be eligible to sit for a national certification examination with ASCP, effective August 1, 2013.

The University holds membership in the American Council on Education, the American Association of Universities Women, the American Association of Colleges for Teacher Education, the Connecticut Conference of Independent Colleges, the Council of Graduate Schools, the College Board, and the Association of Accredited Naturopathic Medical Colleges, the American Association of Acupuncture and Oriental Medicine, the Connecticut Distance Learning Consortium, the American Society for Engineering Education, the Association of Chiropractic Colleges, the National Association of Independent Colleges and Universities, the National Association of College and University Business Officers, the Commission on Accelerated Programs, New England Association for College Admission, the National Association of College Admissions Counselors, the New England Association of College Admission Counselors, NAFSA (Association of International Educators), the Institute of International Education, and AACRAO - American Association of Collegiate Registrars and Admission Officers.

Campus and Campus History

The University of Bridgeport is located fifty-five miles from New York City. Bridgeport, Connecticut’s largest city, borders the 53-acre campus to the north. Seaside Park and the Long Island Sound, with some of the finest sandy beaches between New York and Cape Cod, mark the southern boundary. The unique location of the campus offers a variety of advantages to the University community. The Sound and the Park are settings for studies in marine biology and for the enjoyment of sun and recreation. The city and county provide opportunities for becoming involved in work-study programs with schools, government and some of the country’s largest Fortune 500 and multi-national corporations.

The architectural diversity of UB’s fifty-three buildings, from stately homes as well as newer structures of modern design, reflects the origins and progress of the university and also embodies its twofold commitment to solidity and change. The entrance to Marina Dining Hall, was once the entrance arch to the estate of Phineas Taylor Barnum, who served as Mayor of Bridgeport from 1875 to 1876 and played a crucial role in the city’s cultural and economic development. Bryant Hall, with its inlaid mosaic entryway and ornately carved banisters and ceilings, was built in 1895 for inventor Waldo C.Bryant. The Carstensen Hall is a facsimile of a pavilion at the 1893 Columbian Exposition. It was designed in 1899 for the chemist George Edwards, whose research led to improving the durability of silver plate. Between the campus and Seaside Park is the Perry Arch, designed by Henry Bacon, who also designed the Lincoln Memorial in Washington D.C.

The more modern buildings house academic and student life on campus:
The Arnold Bernard Arts and Humanities Center is a focal point for the cultural life of the University and of the Greater Bridgeport community, as well as the center for the study and appreciation of art, music, cinema, design and drama. Facilities include classrooms, studios, the 950-seat Andre and Clara Mertens Theater, the small-in-the-round experimental Austin W. Mather Theatre, the Littlefield Recital Hall, and the Schelfhaut Gallery. Located on the ninth floor is the Henry B. duPont III Tower Room, used for meetings and receptions.
The Carlson Building, prominently located on the main quad of the University, was built by the generosity of William and Philip Carlson in 1955. Until the completion of Wahlstrom Library in 1974, Carlson served as the University’s first stand alone library. Today it houses the School of Education on its first floor and the College of Public and International Affairs on second floor as well as the Office of Overseas Study and the administrative offices of the English Language Institute. The building also houses the language laboratory and the film and video facility.
The John J. Cox Student Center provides social, recreational, and extracurricular cultural programs. It has a social hall with a seating capacity of 400, lounges and meeting rooms; a games room and bowling alley; the office of The Scribe (the campus newspaper); the studio and transmitter of WPKN (an independent non-commercial FM radio station); and offices of the Student Congress and student clubs and organizations, as well as offices of the Student Development division.
The Charles A. Dana Hall of Science is designed for study and research in biology, chemistry, physics, health sciences, medical laboratory science and geology. There is a 285-seat lecture auditorium, and the unique Science Wall of Honor commemorating thirty-seven of the world’s “Immortals of Science.” It is also the home of the School of Arts and Sciences.

Eleanor Naylor Dana Hall provides facilities for the Physician Assistant Program and the graduate program in Human Nutrition.
The UB Health Sciences Center houses the UB Clinics in Acupuncture, Chiropractic, Dental Hygiene, and Naturopathic care. Also it is the home to the Administration for the Acupuncture Institute, College of Naturopathic Medicine and the Fones School of Dental Hygiene.
The Harvey Hubbell Gymnasium is the center for intercollegiate sports programs. It seats 2,500 spectators.

Ernest C. Trez Schol of Business houses the School of Business and a major computer laboratory.
The College of Chiropractic Building has class and conference rooms, offices, a laboratory, and an auditorium seating two hundred people. It is equipped with the modern facilities necessary for the professional programs offered by the Chiropractic faculty.
The Technology Building provides the engi-
neering disciplines with the special capabilities and equipment needed for programs in biomedical, mechanical, electrical and computer engineering.

The Magnus Wahlstrom Library is the academic and physical heart of the campus. The nine-story building is home to many different types of information resources, collections, and services.

The “Garden Level” houses the Office of the Registrar, The Bursar and Financial Aid, Career Services as well as the School of Continuing and Professional Studies and the IDEAL program. The Sixth floor the Office of Admissions. The Seventh floor houses the Division of Administration and Finance and the Office of the Provost. The Eighth floor houses the Office of the President.

The Wheeler Recreation Center offers opportunities for students to enjoy recreational sports. Wheeler has a 25-meter pool with one-meter and three-meter diving boards and adjacent steam room and sauna facilities. The field house has a multi-purpose area for tennis, basketball, and volleyball, with a jogging track around the perimeter. In addition, there are courts for racquetball and handball.

Security Services
The University offers a combination of security services that include a Securitas Security Service USA managed public safety force, escort services, and twenty-four-hour monitored access to all residence halls.

Also, each full-time student at the University is provided a small personal alarm locator (PAL) that allows one to signal for help instantly from anywhere on campus in an emergency. Small and easily carried, a student summons help with the touch of a button. The signal sends information about who the student is and where that student is monitored to access other services.

Computing Facilities
The Office of Information Technology Services provides computing, information, and networks services to the entire campus community.

A campus-wide fiber optic network for data communication provides data connectivity for students, faculty, and staff. A state-of-the-art digital network system offers students, faculty, and staff access to all on-campus computing resources, as well as remote computing resources via the Internet.

The Office of Information Technology Services maintains the University-wide computing infrastructure for academic and administrative use, utilizing state-of-the-art computing and network solutions. All central and distributed computers and about 1000 workstations and other devices are connected to the campus network, providing each user with access to computing resources. Every faculty and staff member has a PC or laptop connected to the campus network. Phone, cable, and high speed data connectivity is extended to all residence hall rooms.

In addition to numerous departmental computing labs, The Office of Technology Information Services manages public student labs, located in Mandeville Hall, Engineering and Technology Hall, and Wahlstrom Library Learning Commons All computers support general purpose applications, such as word processing, spreadsheets, graphics, and data base management systems. The Stamford and Waterbury centers each have general computer labs to support those students attending classes at those facilities.

Study Abroad
There is opportunity for foreign study and travel and these opportunities are coordinated through the Office of Overseas Study. Students may choose to spend a summer, a semester, or an entire academic year abroad. They may receive credit for work done at a foreign university provided they follow the usual procedure of obtaining permission to take courses off-campus. In the past, students have pursued such programs at the University of Paris-Sorbonne, the Catholic University of the West, Laval University, The Institute for American Universities in Aix-en-Provence, France, The American College in Paris, University of Madrid, University of Valencia, the Young Judea Year Course in Israel, and The London School of Economics. Students interested in such programs should consult with their department chair.

More recently students have also pursued study abroad at the American University of Dubai, at Hanseo, Yonsei and Sun Moon Universities in Korea, at the International Christian University in Japan, at Fudan University and at Sichuan University Jinjiang College in China and at the Chinese Cultural University in Taiwan.

International Activities and Study Abroad
The University of Bridgeport offers a wide range of opportunities for students to learn about other cultures and to understand American culture. Students from approximately 80 countries attend the University. Through formal events such as the annual International Festival sponsored by the Office of International Affairs and the International Relations Club, and through informal contacts in and out of class, students from different cultures are able to meet and get to know one another.

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The University’s Portal (myub.bridgeport.edu) provides access to their email and other student-designated resources. All students have free Web space and additional space for storing critical data. Additional fa-
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cilities permit students to review schedules and perform grade-lookup.
The Office of Information Technology Services also includes wireless access in all study lounges on each floor of each residence hall. General wireless areas include the Wahlstrom Library as well as a popular student gathering location in Knight’s End Café.

Media Services provide support for setting up student UB accounts and wireless issues. Students who need assistance can go to the Print/Copy Center on the first floor of the library for help. Support is available during the hours of operation of the library.
Admissions

Dean of Admissions: Karissa Peckham
Office of Admissions
126 Park Avenue
Bridgeport, CT 06604

203-576-4552 • 1-800-EXCEL-UB
Fax: 203-576-4941
E-mail: admit@bridgeport.edu
Internet Home Page: http://www.bridgeport.edu

Admissions Policy

All University of Bridgeport applications are reviewed and evaluated on an individual basis. The University of Bridgeport admits qualified students regardless of race, color, sex, religion, age, national and ethnic origins or handicap. Applications are accepted and reviewed on a rolling basis throughout the year.

Application

An application may be obtained from the Office of Admissions, 126 Park Avenue, University of Bridgeport, Bridgeport, Connecticut 06604. A non-refundable application fee must accompany the application. Checks should be made payable to “The University of Bridgeport.” For further information, please call (203) 576-4552 or toll free 1-800-EXCEL-UB (392-3582). You can also apply online by visiting our website at www.bridgeport.edu or email us for more information at admit@bridgeport.edu.

All interested students are encouraged to visit the University of Bridgeport to meet with an Admissions Counselor and tour the campus.

Undergraduate Applicants

FIRST YEAR STUDENTS

Freshmen candidates must submit:

A. An Application for admission
B. An official high school transcript or GED (General Equivalency Diploma)
C. SAT or ACT scores
D. FAFSA (if applying for financial aid)
E. Application Fee

Dental Hygiene and Health Sciences: Pre-Nursing applicants are also required to submit a personal statement and two letters of recommendation.

The University of Bridgeport reserves the right to waive the need for certain documents or to request additional documentation.

SECONDARY SCHOOL PREPARATION

The Admissions Committee places emphasis on the quality of the preparatory work of each applicant.

An applicant should be a graduate of a regionally accredited secondary school (or its substantial equivalent) and should present sixteen acceptable units of academic work, including four units in English, three units in Mathematics, two units in a lab science, two units in the social sciences and a minimum of five electives. An applicant who has not satisfied the distribution of college requirements, but has presented convincing evidence of the quality of his/her high school work, may be admitted with the provision that the deficiencies must be addressed before or in conjunction with the beginning of study in his or her academic program of choice.

Students are admitted for both the Fall and Spring terms. Students must notify the Office of Admissions if it is their intention to defer their enrollment.

UNDERGRADUATE TESTING INFORMATION

All applicants for admission as full-time freshmen are required to take the Scholastic Aptitude Test (SAT) or American College Testing Program Exam (ACT). However, if the applicant can demonstrate that he or she graduated from high school more than five years prior to applying, this requirement may be waived. Applicants should have their scores sent directly to the Office of Admissions.

SCHOLASTIC APTITUDE TEST (SAT)

The College Board
P.O. Box 6200
Princeton, NJ 08541-6200
(609) 771-7600
www.collegeboard.com

AMERICAN COLLEGE TESTING (ACT)

American College Testing
P.O. Box 168
Iowa City, IA 52243
(319) 337-1360
www.actstudent.org

Students whose first language is not English and who have been in an American high school for less than two years may submit the results of the Test of English as a Foreign Language (TOEFL) to demonstrate English language proficiency.

TEST OF ENGLISH AS A FOREIGN LANGUAGE (TOEFL)

TOEFL/TSE Services
P.O. Box 6151
Princeton, NJ 08541-6151 USA
(609) 771-7100
www.ets.org/toefl

TRANSFER STUDENTS

An applicant who has attempted 12 or more semester hours at an institution whose accreditors are recognized by the Council for Higher Education Accreditation is considered a transfer applicant. The Admissions Staff will evaluate transfer credit and core credit. For further details, see catalog section on core curriculum. Requests for core credit based on a course meeting the “spirit” of the core will be referred to the chair of the Core Commission for evaluation.

TRANSFER CANDIDATES MUST SUBMIT:

A. An Application for admission
B. Proof of high school completion or G.E.D. (General Equivalency Diploma).
C. An official copy of all college transcripts from each post-secondary institution previously attended. An applicant who fails to indicate attendance at a previous institution at the time of application may forfeit eligibility for transfer credit.
D. FAFSA (if applying for financial aid).
E. Application Fee

The University of Bridgeport reserves the right to waive the need for certain documents or to request additional documentation.
Admissions

Transfer credit is awarded only for courses in which a grade of “C” or better is earned. Dental Hygiene and Health Sciences: Nursing applicants are required to also submit an official high school transcript, official SAT/ACT scores, a personal statement, and letters of recommendation.

The status of any applicant admitted before all final, official transcripts are received will be reevaluated upon receipt of the final transcript. Transfer applicants are urged to apply well in advance of the opening date of the term in which they plan to enter. This will enable the student to receive a timely evaluation of their transfer credit and appropriate academic advisement and program planning.

Students are admitted for both the Fall and Spring terms. Students must notify the Office of Admissions if it is their intention to defer their enrollment.

Students are required to complete their last thirty semester hours at the University of Bridgeport and meet course requirements as described in each program to be eligible for a degree. A maximum of 66 credits may be awarded from two-year colleges and 90 credits from accredited four-year institutions. Transfer credit is awarded on a course by course basis.

Articulation Agreements
The University has articulation agreements with the following institutions:
- Capital Community College
- Gateway Community College
- Housatonic Community College
- Middlesex Community College
- Naugatuck Community College
- Northwestern Community College
- Norwalk Community College
- Tunxis Community College
- Westchester Community College

Academic Credit From Non-University Sponsored Instruction
The following are four categories of assessment from which University of Bridgeport (UB) academic credit is awarded for prior learning earned in non-university sponsored instruction.

1. Standardized Tests—College Level Equivalent Proficiency (CLEP)

UB accepts up to thirty (30) credit hours from the credit recommendations of the College Board’s College Level Equivalent Proficiency (CLEP) exam program. Undergraduate students may earn up to thirty semester hours of credit (one year’s studies) by demonstrating subject area competence through standardized testing. CLEP credit may not be used to satisfy the minimum University 30-hour residency requirement. CLEP credit is not included in the student’s credit hours earned at the University of Bridgeport and is not computed in the student’s quality point ratio at the University.

2. Nationally Recognized Evaluations for Credit Recommendations

UB accepts evaluations of non-university sponsored instruction as part of a student applicant’s transfer evaluation. UB accepts evaluations of non-university sponsored instruction from the following nationally recognized institutions:

- American Council on Education College Credit Recommendation Service: ACE CREDIT recommends academic credit for formal courses or examinations offered by various organizations, from businesses and unions to the government and military.
  - ACE CREDIT includes evaluations on military credits, DSST exams, ALEKS Exams (McGraw-Hill) and many more non-university organizations.
  - The ACTFL Oral Proficiency Interview (OPI), the ACTFL Writing Proficiency (WPT), the ACTFL Reading Proficiency Test (RPT), the ACTFL Listening Proficiency Test (LTP) and the ACTFL Oral Proficiency Interview Computer Test (OPIc) are recommended for college credit by the American Council on Education (ACE).

- National College Credit Recommendation Service (formerly National PONSI), under the auspices of the State University of New York, Board of Regents, evaluates training and education programs offered outside of the traditional college classroom setting and recommends them for college credit equivalencies. National CCRS coordinates teams of college faculty evaluators and subject matter experts to conduct extensive reviews of education and training programs offered by corporations, unions, religious organizations and proprietary schools.

Students applying for admission to the University should include these evaluations with their application and follow the same procedures as a transfer student. The equivalent credit will be assessed in conjunction with the academic program and other earned transfer credits. [See Transfer Students on page 6]

3. Credit for Life Work Experience Program (CLWEP)

Some students acquire mastery over course subject matter through prior work or training experience. UB values the university-level knowledge that student’s may have acquired outside the traditional university classroom.

In the CLWEP portfolio assessment, students demonstrate that what they already know is equivalent to what they would have learned in an equivalent college course. A student may have acquired this knowledge through past work, independent reading and study, training programs or in-service courses, volunteer service, cultural or artistic pursuits, hobbies and recreational pastimes, community or religious activities, organizational memberships, adult education, non-credit courses, study abroad, military training not evaluated for credit by ACE, or other experiences. A portfolio enables the student to identify and articulate this knowledge, and potentially earn credit for it.

Students learn the process of identifying areas of course-equivalent learning and portfolio development skills through the CLWEP guidelines and assessment plan that can be acquired through the School of Continuing & Professional Studies.
Admissions

CLWEP credit may not be used to satisfy the minimum University 30-hour residency requirement. CLWEP credit is included in the student’s semester hours earned at the University and also in the total number of UB hours used to determine eligibility for graduation honors. However, such credit is not computed in the student’s quality point ratio at the University.

Special Instructions for Specific Majors

DESIGN PORTFOLIO REQUIREMENTS

SASD is looking for a passion for art and design in a portfolio. We recommend that students choose from the following for inclusion in their portfolio: drawings, paintings, posters, photography or video, sculpture, ceramics, fashion, or work for a school yearbook or class.

Submissions should contain 10-12 samples of your work. Portfolios may be emailed, mailed in on DVD, posted to a personal web site, or hand delivered in hard copy form.

If a student does not have art or design work or attends a school that does not provide art or design classes, he or she may contact SASD for an assignment to complete at home. In these cases, we encourage students to visit SASD so a faculty member can provide both examples and materials.

Please contact sasd@bridgeport.edu for further information.

DENTAL HYGIENE

Freshman Students: Graduation from a regionally accredited secondary school. A high school background that includes four years of English, two years of Math, one year of College Prep Chemistry with a laboratory, one year of College Prep Biology with a laboratory and courses in social studies. An overall B is recommended. All students who are applying as a full time freshman must take the SAT or the ACT. Scores should be sent directly to the Office of Admissions.

Clinical students must begin the Health Sciences curriculum upon recommendation of the Dean. Clinical students must begin in the fall semester of an academic year and attend full time.

Transfer Students: A student who has attempted 12 or more semester hours at a regionally accredited institution is considered a transfer applicant. The following courses or course equivalents as determined by UB Admissions transfer credit evaluation must be completed: Anatomy and Physiology I & II for eight credits; a College Chemistry course with a laboratory; Intermediate Algebra; and English Composition. A minimum grade of C or higher in the pre-requisite courses with a combined GPA of 2.7 is required; an overall GPA of a 2.5 or above is required.

Students without science prerequisites may begin at the Fones School in a pre-dental hygiene curriculum upon recommendation of the Director. Clinical students must begin in the fall semester of an academic year and attend full time.

HEALTH SCIENCES: PRE-NURSING

Freshman Students: Graduation from a regionally accredited secondary school. A high school background that includes four years of English, two years of Math, one year of College Prep Chemistry with a laboratory, one year of College Prep Biology with a laboratory and courses in social studies. An overall B is recommended. All students who are applying as a full time freshman must take the SAT or the ACT. Scores should be sent directly to the Office of Admissions. Freshmen students must begin in the fall semester of an academic year and attend full time.

Transfer Students: A student who has attempted 12 or more semester hours at a regionally accredited institution is considered a transfer applicant. Admission to nursing programs requires satisfactory completion of coursework in the sciences and other areas. To ensure that transfer credit and courses taken at UB fulfill these requirements, students will select courses with the help of an advisor. A minimum grade of C or higher in all pre-requisite courses and a GPA of a 2.5 or above is required.

Students without science prerequisites may begin the Health Sciences curriculum upon recommendation of the Dean.

MUSIC

Applicants should call the Department at (203) 576-4407 for information.

ATHLETICS

The University of Bridgeport offers a full program of NCAA Division II intercollegiate sports, including basketball, baseball, cross-country, swimming and soccer for men, and basketball, softball, cross-country, gymnastics, swimming, volleyball, lacrosse and soccer for women. Athletic scholarships are available. All students who wish to participate in intercollegiate athletics are required to register with the NCAA Initial-Eligibility Clearinghouse. For more information and a Clearinghouse registration form, please contact your high school guidance office or the UB Athletic Department at (203) 576-4735.

International Applicants

The University of Bridgeport enrolls students from more than 80 nations. To be considered for admission, students must complete the International Student Application which can be obtained by writing the Office of Admissions, University of Bridgeport, Bridgeport, CT 06604 U.S.A., by fax at 203-576-4941 or on-line at http://www.bridgeport.edu. A non-refundable application fee should accompany the application. Checks should be made payable to “The University of Bridgeport.”

Official copies of original transcripts of all academic work must be submitted along with the official, literal, word for word, English translations. In addition, students are required to demonstrate that sufficient funds are available to meet the cost of tuition, fees and living expenses. The Financial Statement form is included in the International Student Application.

INTERNATIONAL CANDIDATES MUST SUBMIT:

A. A completed admissions Application for International Students.

B. An official transcript of all previous academic work along with a literal English translation.

C. Documentation that sufficient funding is available to meet the University’s tuition and fees and living expenses.
Admissions

ENGLISH LANGUAGE REQUIREMENTS

Those whose native language is not English are also required to show English language proficiency. You can demonstrate proof of English Language competency by meeting any one of the criteria listed below.

1. A letter certifying completion of level 6 at the University’s English Language Institute (ELI) or attainment of a satisfactory score on the University of Bridgeport’s English Language Assessment Battery (ELAB).

2. A minimum TOEFL score of 500 (PBT), 173 (CBT), or 61 (IBT) for undergraduates and a minimum score of 550 (PBT), 213 (CBT), or 80 (IBT) for graduates (post-graduates).

3. A minimum IELTS (Cambridge Testing) Band score of 6.0 for Undergraduates and a minimum Band score of 6.5 for graduates (post-graduates).

4. A transcript from an accredited American university indicating a grade of “C” or better in one semester of college English Composition.

5. Critical Reading SAT score of 400 or above; or ACT English score of 19 or above.

6. An official letter certifying completion of ELS (English Language Service) through level 112.

7. An official letter certifying completion of CSE (The Center for English Studies) through level 7.5.

8. A Michigan English Assessment Battery (MELAB) score of 69 or above for undergraduates and score of 77 or above for graduates.

9. A Prueba de Aptitud Academica (PAA) English achievement score of 500 or above.

10. A level of “Advanced” on the English Language Proficiency Test of the College Board.

11. An official “O” level or “A” level Certificate indicating a grade of “C” or better in English.

12. An EIKEN score of Grade 2A or above for undergraduates and a score of Grade Pre-1 or above for graduates.

13. A score of 4 or better on the “English A” Higher Level examination in the International Baccalaureate (IB) program.

14. WAEC, WASSE, CXC, etc. – Score of “C” or better on English Language exam.

15. A minimum Pearson Test of English Academic (PTE Academic) score of 44 for undergraduates and a minimum PTE Academic score of 53 for graduates (post-graduates).

You must demonstrate English language competency in one of these ways listed above. If you don’t demonstrate English language competency in one of these ways prior to registration, you will be given the University English Language Assessment Battery (ELAB) test upon arrival. If you pass at a satisfactory level, you may begin classes.

Information on the intensive program of English as a Second Language offered by the University’s English Language Institute may be obtained by contacting: English Language Institute, Carlson Hall, University of Bridgeport, Bridgeport, CT 06604, U.S.A.; Telephone: (203) 576-4860; Fax: (203) 576-4861; E-mail: esl@bridgeport.edu; Internet: http://www.bridgeport.edu/eli.

ENGLISH LANGUAGE TESTING INFORMATION

Students whose first language is not English may submit the results of the Test of English as a Foreign Language (TOEFL) or the results of the International English Language Testing System test (IELTS) to demonstrate English language proficiency.

TEST OF ENGLISH AS A FOREIGN LANGUAGE (TOEFL)

TOEFL/TSE Services
P.O. Box 6151
Princeton, NJ 08541-6151 USA
(609) 771-7100
www.ets.org/toefl

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM (IELTS)

IELTS USA (Cambridge Testing)
825 Colorado Boulevard, Suite 201
Los Angeles, CA 90041
1 323 255 2771
ielts@ielts.org

Graduate Applicants

Applicants to the University of Bridgeport are required to have an undergraduate degree from an accredited institution or from a recognized international university. Official transcripts of all previous course work should be sent directly to the Office of Graduate Admissions.

Admission decisions are based primarily on an applicant’s undergraduate record. A prospective student who is currently completing undergraduate study should submit an official transcript complete to the date of application. In most cases, an admission decision will be made on the basis of a partial transcript, contingent upon completion of the baccalaureate degree. Registration will not be permitted until a final, official transcript is submitted to the Office of Admissions.

Generally, students may be admitted for any term — fall, spring or summer. Should a student be unable to enter the university during the term for which admission is granted, the offer of acceptance will remain open for one calendar year. After one year, a new application will be required.

Please refer to the individual graduate program for admissions requirements specific to that major.

TRANSFER CREDITS

The Dean of the individual Colleges/Schools/Institutes may allow up to six semester hours (eight hours in the case of laboratory courses) of graduate transfer credit from a regionally accredited college. The courses should have been completed recently with a grade of “B” or better and be comparable to UB’s Graduate courses.

Specific colleges of the university and certain programs have additional requirements for admission, details of which are included in the individual program listing in this catalog.

Graduate Testing Information

GRADUATE MANAGEMENT ADMISSION TEST (GMAT)

Administered by the Graduate Management
Admissions

Admissions Council. Scored on a scale of 0-60. Scores for verbal, quantitative and a composite score.
Educational Testing Service
P. O. Box 6103
Princeton, NJ 08541-6103
(609) 771-7330
Email: gmat@ets.org

GRADUATE RECORD EXAMINATION (GRE)
Administered by the Educational Testing Service. Scored on a scale of 200-800. General GRE is composed of questions aimed at measuring aptitude and not specific subject knowledge. Subject GRE’s are designed to measure competency in a specific subject area.
Educational Testing Service
P. O. Box 6000
Princeton, NJ 08541-6000
(609) 771-7670

MILLER ANALOGIES TEST (MAT)
Administered through a network of controlled testing centers licensed by the Psychological Corporation. The MAT is a high-level mental ability test requiring the solution of problems stated as analogies. It consists of 100 partial analogies that are to be completed in 50 minutes. Tests are scored in raw format and in percentiles based on the intended major and on the general population of MAT examinees.
Miller Analogies Test
The Psychological Corporation
19500 Bulverde Rd.
San Antonio, TX 78259
(210) 339-8710
Email: scoringservices@harcourt.com

PRAXIS EXAM REQUIRED FOR TEACHER CERTIFICATION
PRAXIS
ETS - The Praxis Series
P.O. Box 6051
Princeton, NJ 08541-6051
1-609-771-7395
For information about Connecticut’s teacher assessment requirements, contact:
Connecticut State Department of Education
Bureau of Educator Standards and Certification
PO Box 150471 – Room 243
Hartford, CT 06115-0471
Telephone: 1-860-713-6969
Fax: 1-860-713-7017

Special Admissions Considerations
NON-DEGREE APPLICANTS
A Non-Degree Student is permitted to take courses for credit on a part-time basis, as a non-degree candidate, as long as the student has met the prerequisites for the course.
A Non-Degree Student may become a matriculated student if he or she meets the appropriate requirements for admission. However, a Non-Degree Student is subject to any changes in graduation requirements instituted prior to actual matriculation. Candidates for matriculation may attend as Non-Degree Students up to the completion of 12 credits. A maximum of 12 credits taken as a non-matriculating student may be applied to a student’s requirements for graduation, with program approval.

HOME-SCHOOLED APPLICANTS
The University of Bridgeport welcomes applications from individuals who have completed all or part of their education in a home-schooled environment. The admissions staff would be aided in evaluating student performance if the applicant can provide as many of the following items as possible.
1. SAT or ACT Scores (required)
2. A record of academic work completed which is equivalent to that required of graduates from an accredited high school. This should include grades, credit hours, and a grade point average.
3. An interview with the department chairperson or designated faculty member of the department in which the applicant is seeking admission.
4. A written evaluation of the student’s academic competence by the parent(s) or teaching adult.
5. A writing sample from the applicant.
6. A portfolio exhibiting what the applicant has accomplished in the areas of math and science and a detailed reading list.
*If the student has a GED this will also be used in the admission process. This, however, is not a requirement.

Interviews, Information Sessions And Campus Tours
We encourage applicants to meet with a member of the Graduate Admissions staff and their respective academic department to discuss academic and career goals as well as the particular concerns of admission and financial assistance. The Office of Admissions is open Monday through Friday from 8:30 a.m.- 4:30 p.m. on designated Saturdays. Tours of the campus are scheduled Monday-Friday by appointment at 10:00 a.m., 12:00 p.m. and 2:00 p.m., and on select Saturdays at 11:00a.m. throughout the year. The Office of Admissions is located on the 6th floor of the Magnus Wahlstrom Library.
For more information about interviews, information sessions, and campus tours please contact the Office of Graduate Admission at (203) 576-4552 or toll-free at 1-800-EXCEL-UB or visit the website at www.bridgeport.edu.

Scholarships
The University offers scholarships to many Undergraduate and Graduate students who have a successful high school or college record. UB is known for its affordable private school education. The University believes that a student’s achievement should be recognized and rewarded. With this goal in mind, UB’s unique scholarship program rewards academic excellence, community service, leadership and special talent.
Tuition, Fees and Other Expenses

Please see website for current academic year for tuition, fees and other expenses.

HEALTH AND ACCIDENT INSURANCE
(Mandatory for all full-time undergraduate, international and residential students)
A charge for UB insurance coverage is mandated for all full-time undergraduate, international and residential students’ accounts. Domestic students who presently have medical insurance coverage may complete an online waiver. Replacement coverage for waiver consideration must meet minimum standards for basic Medical/Surgical Expenses. A copy of the policy must be attached to the waiver request. Waivers will not be accepted after the sixth week of the semester. Policy commences August 1 for 12 months.

PROPERTY INSURANCE
The University does not assume responsibility for the loss of personal property of students either on or off the campus. It is recommended that students protect themselves against such losses by consulting with their own (or with their parent(s)) insurance agent in regard to coverage provided by existing policies, if any; or by purchasing private property insurance. Information may be obtained at the Residential Life Office, (203) 576-4228, or email reslife@bridgeport.edu.

Institutional Undergraduate/Graduate Refund Policy

DEPOSITS REFUNDS
Tuition Deposit — 100% Refund (Non Refundable after June 1st)
Room Deposit — No Refund

TUITION REFUNDS
• Refunds are based on tuition charges.
• Failure to withdraw properly will result in the issuance of a Withdrawal/Failure grade and responsibility for payment in full.
• Proper withdrawal is granted upon presentation of the approved and signed Withdrawal Form to the Registrar’s Office at 126 Park Avenue, Wahlsstrom Library Garden Level, Bridgeport, CT 06604

UNDERGRADUATE & GRADUATE & HEALTH SCIENCES
Fall & Spring Semesters
Before the 1st Day of classes 100%
During 1st Week *100%
During 2nd Week 80%
During 3rd Week 60%
During 4th Week 40%
During 5th Week 20%
After 5th Week No Refund

Summer Session
Before the 1st Day of classes 100%
After the start of classes No Refund

HUMAN NUTRITION
Before 1st Day of Class 100%
Before 2nd Session *100%
Before 3rd Session 75%
Before 4th Session 50%
After 4th Session No Refund

IDEAL Program
Before Term Start Date 100%
During the 1st Week: *100%
During 2nd Week: 75%
During the 3rd week 50%
After 3rd Week: No Refund

*Fees will not be refunded after the first day of classes

ELI TUITION REFUND
No Refund

FEE REFUND
• If a student withdraws prior to the start of the semester, all fees will be refunded. Once a semester begins, there are no refunds of fees.
• All student fees are for a full semester and are not refundable.
• Room and board charges are for a full semester and are not refundable.
• If the course is cancelled, all fees are refunded.

Any outstanding balance on a student’s account is deducted from the tuition credit. Any credits resulting in a refund to the students account as authorized by the Office of Student Financial Services, will require approximately three weeks for processing. The Office of Student Financial Services does not provide check cashing services for students. All banking services required by students must be personally arranged with local banking facilities. The University does have an ATM banking machine located in the Security Office (Norseman Hall).

FEDERAL FINANCIAL AID RETURN OF TITLE IV
A statutory pro-rate refund applies to any student who is a recipient of federal financial aid funding (Title IV) and leaves the school on or before the 60% point in the enrollment period for which he or she has been charged. After the 60% point in the enrollment period, a student has earned 100% of the SFA program funds. Students may contact the Office of Student Financial Services (203-576-4568, sfs@bridgeport.edu) for additional information on the Federal Title IV regulations regarding student refunds.

All students who receive federal financial aid and withdraw from the University are subject to a Federal Title IV return of funds policy. Federal Title IV refund will be made in this order:
1. Federal Direct Unsubsidized Loan
2. Federal Direct Subsidized Loan
3. Federal Direct PLUS Loan
Tuition, Fees and Other Expenses

4. Federal Perkins Loan
5. Federal Pell Grant
6. Federal Supplemental Educational Opportunity Grant
7. Other Title IV aid programs
8. Other federal sources of aid
9. Other state, private, or institutional aid
10. The Student

UNIVERSITY OF BRIDGEPORT STUDENT ACCOUNT PAYMENT POLICY

To best serve you and your financial needs as a student at the University of Bridgeport, it is important that you become familiar with the university’s account payment policy. We have provided the information below to help you better understand the terms of your payment obligations. Please review this document carefully. If you have any additional questions, please contact the Student Financial Services Office at 203.576.4568.

University of Bridgeport students are financially responsible upon registration for all charges incurred. Charges generally include, but are not limited to, tuition, fees, housing, meal plans, and other miscellaneous charges.

Students must make an acceptable payment arrangement with the Student Financial Services Office a week prior to the start of the term. Acceptable payment arrangements for all charges, less the application of approved University of Bridgeport financial aid, must be either:

- Payment in full; or
- An approved University of Bridgeport payment

A student who complies with the above shall be considered in good financial standing. A student participating in an approved University of Bridgeport payment or deferment plan must make timely payments pursuant to the arrangement to remain in good financial standing. Outstanding balances are subject to a late fee and interest charge.

All charges must be satisfied in full by the last day of the term in order to receive grades, transcripts, diplomas and other University of Bridgeport services.

Please note—For students who are not in good financial standing the following shall occur:
- All students must be registered a week prior to the start of the term. If a student registers there-after: A late registration fee of $180.00 dollars will be assessed.
- On the first day of the semester, a balance hold will be placed on the account which will preclude the student from registering for a subsequent term, receiving a diploma, a transcript, or other University of Bridgeport services.
- On the first Monday after the Add/Drop period ends: A late fee of $275.00 dollars will be assessed.

At 180 Days after the Beginning of the Term: The student account may be sent to an outside collection agency. The student will be responsible for all amounts due PLUS the costs and expenses of collection PLUS reasonable attorney's fees and expenses to the extent permitted by applicable law. To best serve you and your financial needs as a student at the University of Bridgeport, it is important that you become familiar with the university’s account payment policy. We have provided the information below to help you better understand the terms of your payment obligations. Please review this document carefully. If you have any additional questions, please contact the Student Financial Services Office at 203.576.4568.

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PAYMENT ALTERNATIVES

The University of Bridgeport understands that families look for as many options as possible to make financing an education more convenient and affordable. Tuition Management Systems of Warwick, RI, offers a wide array of valuable options. The available options are described below. If you have any questions, please feel free to contact: Tuition Management Systems at 1-800-722-4867 or (401) 849-1550 or www.afford.com; the Office of Student Financial Services, or Admissions.

TUITION PAYMENT PROCEDURES

Payment is due by the first day of the academic period (semester or term whichever is applicable). If you register after classes begin, payment is due upon registration. Those students who register early, an invoice will be mailed to the the university email address on file before classes begin. Students who register within a week of the beginning of classes may not receive a tu-
Tuition, Fees and Other Expenses

Payment is due at the time of registration. Students who register late should contact the Office of Student Financial Services by phone at (203) 576-4568 or by fax (203) 576-4570 or by email at sfs@bridgeport.edu to obtain an invoice and make payment arrangements. A late payment fee per semester is charged to the account of students who do not arrange an approved form of payment by the due date. In addition, course registration may be canceled. Students for whom courses are canceled for nonpayment may re-register after the late fee(s) and tuition charges are paid. Automatic registration does not occur, nor will registration be allowed in sections that have been filled in the interim if courses were canceled for nonpayment. Monthly Payment Plans:

Students and their families can make payments from their bank account or by credit card through Tuition Management Systems (TMS). In addition to full payment, TMS offers various interest-free payment plan options to help spread all or part of student’s tuition, room & board, and fees over several equal monthly payments. Furthermore, if your monthly payment exceeds your ability to pay, For further information, to enroll in a payment plan, or to make a payment go to http://www. afford.com/bridgeport or call 1-800-722-4867.

Fall Plans available:
- 5 pay plan – enroll by July 1st
- 4 pay plan – enroll by August 1st
- 3 pay plan – enroll by September 1st

Spring Plans:
- 5 pay plan- enroll by Dec 1st
- 4 pay plan- enroll by Jan 1st
- 3 pay plan – enroll by Feb 1st

Summer Plans:
- 3 pay plan- enroll by May 1st

**PAYMENT BY CASH, CHECK, OR MONEY ORDER**

Payments by cash, check or money order, please record your University of Bridgeport Student I.D. number on the check or money order. The U.B. Cashier will add your student I.D. number to any check or money order, when one is not indicated.

**PAYMENT BY WIRE TRANSFER**

Payment can be wired directly to the U.B. Cashier who may be contacted for wiring instructions at (203) 576-4568 or e-mail at cashier@bridgeport.edu.

**PAYMENT BY CREDIT CARD**

Students may pay their tuition bill using VISA, MasterCard, American Express or Discover Card. Payments can be made in person at the U.B. Cashier's Office located on the Garden Level of Wablstrom Library or at the Stamford or Waterbury centers. To make a credit card payment by phone, call 203-576-4568. Payments made by fax must include type of credit card, card number, expiration date, amount of payment, name on the credit card, the address associated with the credit card, and a daytime phone number. Payments should be faxed to the University of Bridgeport Cashier's Office at (203) 576-4570. For additional information you may email the Cashier's Office at cashier@bridgeport.edu.

**WEBADVISOR ONLINE PAYMENT**

The University of Bridgeport has an online payment option for WebAdvisor users (www.bridgeport.edu/webadvisor). Students may pay their tuition bill using VISA, MasterCard, American Express or Discover Card. To make payments follow these steps:

- Log in to WebAdvisor: www.bridgeport.edu/webadvisor
- Login using your UBNet ID and Password and click on the submit button
- Click on the “Student Menu” located at the upper left corner of the screen
- Click on the “Make a Payment” link located at the “Financial Profile” section
- Click on the “Pay on My Account”
- Enter desired payment amount at “Payment Amount” section
- Select type of credit card (VISA, MasterCard, American Express or Discover Card), enter credit card number, credit card expiration date, name on the credit card and an email address.
- Click Submit after reviewing the data entered above.
- Remember to Log Out.

**DEFERMENT PAYMENT OPTION (DIRECT PAYMENT)**

Students eligible for an external scholarship or for whom an employer pays their tuition may qualify for the deferment/direct payment option. Consult your sponsor to determine if a direct billing agreement has been established with the University of Bridgeport. If one has been established, you need a letter, on company letterhead, from your sponsor who certifies receiving amounts of aid. For further information, you may email the Cashier’s Office at cashier@bridgeport.edu.

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- Click on the “Pay on My Account”
- Enter desired payment amount at “Payment Amount” section
- Select type of credit card (VISA, MasterCard, American Express or Discover Card), enter credit card number, credit card expiration date, name on the credit card and an email address.
- Click Submit after reviewing the data entered above.
- Remember to Log Out.
letter) from their balance due. Lender fees (usually 1%) should be deducted from each loan award, excluding Perkins loans. When an “E” appears in the ACT field, this usually indicates an action is required before the award will be credited to the student’s AR account. In these cases, students must contact the Office of Student Financial Services at 203-576-4568 for assistance in determining which action is necessary for the financial aid to be credited to their account. Please note work-study awards are not deducted from the amount due since the student will be eligible to earn up to this amount through student employment. Federal Regulations require the University to issue a paycheck directly to the student for hours worked.

PERKINS LOANS:
Perkins loan recipients must electronically sign for their Perkins loan advance every year within the first two weeks of the start of classes to ensure credit of this award to their account.

FEDERAL DIRECT LOANS:
Loan origination fees will reduce the amount of loan funds received. These fees (normally 1%) should be deducted from the amount shown in the award letter before deducting the amount of these funds from the final bill.

ALTERNATIVE LOANS:
Alternative loans are private loans offered through a lending institution and are not a part of federal student aid programs. Interest rate and repayment provisions vary from lender to lender. It is the responsibility of the student to research and understand the implications of borrowing an alternative loan.

BOOKSTORE
Purchasing your textbooks and school supplies is now even easier. Books may be purchased at the On-Campus Bookstore located at John J. Cox Student Center or via the Internet at www.bridgeport.edu/bookstore. In addition to the required course texts, the On-Campus Bookstore carries supplies, materials, UB memorabilia and much more. For additional information contact the Bookstore at (203) 576-4804, fax (203) 576-4802, or email bookstore@bridgeport.edu.

Bookstore’s normal hours of operation are*: 9:00am to 5:00pm on Monday, Tuesday, and Thursday; 9:00am to 7:00pm on Wednesday; 9:00am to 4:00pm on Friday.
* Rush and summer hours change

CHANGE OF ADDRESS
A student must complete a Change-of-Address form in the Office of the Registrar whenever a change is made in his or her local or mailing address. This will avoid misdirection of grades, registration materials, and appropriate financial documents.

I.D. CARDS & P.A.L.
STUDENT IDENTIFICATION CARDS
A photo identification card must be obtained at the security department between the hours of 8 a.m. – 4 p.m. Monday through Friday. Registration confirmation is required. Upon activation, the ID card serves as a library and meal card and provides access into the residential halls to the resident students. A fee will be charged for replacement of lost, stolen, misplaced or damaged ID cards.

PERSONAL ALARM LOCATOR (P.A.L.)
All students are provided a Personal Alarm Locator (PAL). This device must be obtained through the security department 24 hours a day, 7 days a week. The PAL allows an individual to summon help immediately in the case of an emergency within the campus boundaries. The small and easily carried device acts as a beeper, sending signals to the security office computer system when activated. Once activated, the computer screen provides the individual’s personal information, photo ID and the location from where the device was activated. The information is viewed by the dispatcher and is passed on to the patrol officers. Officers immediately respond to the call in search of the individual who activated the device.
Application Procedures

New domestic students are encouraged to begin to apply for financial aid at the same time they are seeking admission. Applicants for financial aid need to:

1. Complete the Free Application for Federal Student Aid (FAFSA) by going to www.FAFSA.gov. Be sure to include the University's school code, 001416, on the FAFSA.

2. Submit copies of the student’s and parents’ federal tax transcript and other verification documents upon request from the Office of Student Financial Services.

3. Upon request from the Office of Student Financial Services, submit immigration documentation certifying permanent resident status, if you are a non-U.S. citizen applying for need-based financial aid.

Continuing students must reapply for financial aid each year no later than March 1 to be given full consideration for aid for the following academic year. Students must:

1. Complete the Free Application for Federal Student Aid (FAFSA) by going to www.FAFSA.gov. Be sure to include the University’s school code, 001416, on the FAFSA.

2. Submit copies of student’s and parents’ federal tax transcript and other verification documents upon request from The Office of Student Financial Services.

Students and parents are encouraged to call or visit the Office of Student Financial Services if they have any questions or would like assistance with the application process. For further information call or write:

The Office of Student Financial Services
126 Park Avenue, Bridgeport, CT 06604
(203) 576-4568 or toll free 1-800-243-9496, FAX (203) 576-4570.

Satisfactory Academic Progress

In order to maintain eligibility for financial aid a student must maintain satisfactory academic progress. Financial aid recipients are expected to make reasonable progress as a condition of receiving and continuing to receive aid. Students’ academic progress is assessed according to qualitative and pace measures as they apply. The qualitative measure is (grades) is similar to the academic standards applied to all UB students. The pace measure (number of credit hours completed successfully/maximum timeframe) is used to monitor progress toward degree completion. For a student to be making satisfactory academic progress the student must meet the following qualitative GPA standards and have completed, with a passing grade, at least 67% of the cumulative attempted credits.

Undergraduate

CREDITS ATTEMPTED MINIMUM C.G.P.A. (including transfer credit)
1 – 24 1.5
25 – 48 1.7
49 – 59 1.9
60 or more 2.0

Graduate

Graduate students must maintain a C.G.P.A. of 3.0 and complete 68% of the cumulative attempted credits.

FINANCIAL AID PROVISIONAL STATUS

Students not meeting satisfactory academic standards for a given academic term, as outlined above, are notified in writing and will be placed on financial aid probation for one semester for which they may receive their aid. At the end of the probationary semester, satisfactory academic progress will be reviewed. If the student meets the minimum standards as outlined, the probationary status will be lifted. If minimum standards are not met, the student will forfeit his or her future eligibility for financial aid and will be notified in writing.

Students who have not maintained eligibility to receive financial aid due to unsatisfactory academic progress may appeal for one additional semester of probationary eligibility. The student must also sign an Academic Plan agreement with Student Financial Services outlining what is needed to meet SAP. Appeals must be submitted to the Office of Student Financial Services within 10 calendar days of receipt of notice of action taken for committee review. The decision on the appeal is final. Late or incomplete appeals will not be accepted or reviewed.

REINSTATEMENT OF AID

If a student is re-admitted, the University will consider the student’s application for financial aid. Reinstatement of aid is not au-
tomatic and the student must submit a letter to the Office of Student Financial Services requesting a reinstatement. In order to remain eligible for aid, students must meet the minimum academic progress standards as outlined or lose eligibility for the following semester.

FINANCIAL AID RETURN POLICY

Students withdrawing from all courses should see financial aid as it is important to discuss withdrawal and refund as it pertains to the individual student, and its implications for balances owed to the University, federal student loan repayment and future eligibility for financial assistance.

Return of Institutional Aid

Students withdrawing within the University’s Tuition Refund Schedule (see Tuition, Fees and Other Expenses) will have the same schedule applied to their University of Bridgeport aid.

Return of Federal Aid

If you have been awarded federal (Title IV) aid and you withdraw before completing 60% of the semester your financial aid award will be recalculated, according to the percentage of the semester you have completed. The formula for calculating this percentage is:

\[
\frac{\text{(Days enrolled)} - \text{(Official breaks of five days or longer)}}{\text{Total number of class days in the semester}} \times 100
\]

Financial Assistance Programs

The University of Bridgeport believes that a student’s achievements should be recognized and rewarded. Our scholarships and grants enable students who have potential and want to benefit from a high quality academic program. Students who qualify must enroll as and maintain full time traditional status. Undergraduate awards are renewable for up to four years based on satisfactory academic progress and good standing at the University. Students who are enrolled in accelerated/professional courses are not eligible for these awards.

GRADUATE ASSISTANTSHIPS

Graduate Assistantships are available. Please contact the Office of Graduate Assistantships (203) 576-4111.

University of Bridgeport Merit Award

Financial need is not required for merit based scholarships which are awarded at time of admission based on criteria set forth by the Office of Admissions.

University of Bridgeport Grant

Awarded to undergraduates with financial need. University of Bridgeport’s Merit and Need based awards, combined with federal and state grants, are limited to tuition and fee charges. Resident Assistants and Athletes may receive designated funds to go toward housing charges.

Federal Title IV Programs

FEDERAL PELL GRANT

Pell Grants are awarded to undergraduate students who have not earned a bachelor’s or professional degree. Pell Grant awards are based upon the student’s Estimated Family Contribution (EFC), enrollment status, cost of attendance, and the number of credit hours in which the student is enrolled. The maximum grant a student can receive for the year is determined by the government.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)

The FSEOG is a grant that does not have to be repaid. Priority is given to the neediest students with the lowest EFC’s who are PELL eligible. Students who have submitted their financial aid applications by the University’s deadline will be given first priority. All other students will be given consideration on a first-come first-served basis pending the availability of funds. The federal government pays all interest costs for Direct Subsidized loans or are Graduate students. Borrowers may defer payment of interest during school, grace, and deferment periods.

FEDERAL WORK STUDY (FWS)

The Federal Work Study Program provides jobs for undergraduate students who demonstrate financial need. The amount of the FWS award is based on both the student’s need and the availability of funds at the University. While there are several FWS jobs available on campus, students are also encouraged to work in community service related jobs.

FEDERAL PERKINS LOAN

A Federal Perkins Loan is a low interest (5%) loan for both undergraduate and graduate students who demonstrate exceptional financial need. Students who have submitted their financial aid application by the University’s deadline will be given first priority. All other students will be given consideration on a first-come first-served basis pending the availability of funds. Award amounts vary based on need and U.S. Department of Education allocation to the University.

FEDERAL DIRECT LOANS (SUBSIDIZED and UNSUBSIDIZED)

All student loans will now be originated in the Direct Loan Program, in which the Federal government makes loans directly to students. Both Direct Loan programs require the borrowers to complete an Entrance Counseling and the Master Promissory Note. To obtain more information about the Federal Direct Loan programs; you can visit the website at: www.studentloans.gov.

The Direct Subsidized Loan is awarded to undergraduate students who demonstrate financial need. The federal government pays all interest costs for Direct Subsidized borrowers while the borrowers are attending school at least half-time and during deferment periods.

The Direct Unsubsidized Loan is awarded to students who do not meet financial need, need to supplement their Direct Subsidized Loans or are Graduate students. Borrowers may defer payment of interest during school, grace, and deferment periods, but remain responsible for all interest that accrues (accumulates). Any interest accrued and not paid by time repayment period begins will be capitalized. A small origination fee will be charged by Direct Lending for each loan. The amount is determined each year by the government.
### Student Financial Services

Undergraduate Dependent students may borrow as freshman up to $5,500 (including up to $3,500 Subsidized) per year; sophomores up to $6,500 (including $4,500 Subsidized) per year; and $7,500 as juniors and seniors (including up to $5,500 Subsidized) per year.

Undergraduate Independent students may borrow as freshman up to $9,500 (including up to $3,500 Subsidized); sophomores up to $10,500 (including up to $4,500 Subsidized); and as juniors and seniors may borrow up to $12,500 (including up to $5,500 Subsidized).

Students start repayment of the loan(s) (plus interest) six months after completion of the degree program, withdrawal or change to less than half-time enrollment status. The government offers different repayment plans and the most frequent is the standard repayment which spreads out over the course of 10 years (principal and interest amounts).

**Important to Know:** Dependent students whose parents get DENIED a Federal Direct PLUS Loan can receive an additional $4,000 for the freshman and sophomore years and $5,000 for juniors and seniors years.

**GRADUATE/PROFESSIONAL** students can borrow up to $20,500 per award year. Chiropractic and Naturopathic students have increased eligibility in Direct Unsubsidized. Interest rates on Federal Direct Loan programs are established every year; starts on/after July 1st of the current year and carries out to the following calendar year ending June 30th.

### FEDERAL DIRECT PLUS LOANS

The Federal Direct PLUS Loan programs are available to parents of dependent students and graduate and professional degree students. The amount that could be borrowed is up to the cost of attendance, minus financial aid from other sources. Interest Rates are determined each year. An origination fee will be charged by Direct Lending. The amount is determined each year by the government.

### FEDERAL DIRECT PARENT PLUS LOAN

Parents of dependent students may apply for a parent PLUS LOAN to help their child’s educational expenses. The parent must be the student’s biological or adoptive parent. The parent must not have an adverse credit history (must be credit worthy). The parent must complete the plus loan application and sign the Master Promissory Note (MPN).

### FEDERAL DIRECT GRADUATE PLUS LOAN

The Graduate/Professional seeking degree students can borrow a Direct PLUS Loan to help them cover their educational expenses. The amount of loan they can borrow is up to their cost of attendance minus the Federal Direct Subsidized and Unsubsidized Loans for the award year. The student must complete the Direct PLUS Loan application and sign the Master Promissory Note every academic year.

### State Programs

Financial assistance programs are available to qualified students from the state of Connecticut, including the Connecticut Independent College Student Grant. Many other states also have scholarship programs for residents of their state. For more information, contact your state’s agency for higher education.

### Governor’s Scholarship Grant

As an independent University, the University of Bridgeport participates in the Governor’s Scholarship Grant Program. Connecticut undergraduate students who enroll on a full-time basis at the University and who meet the Expected Family Contribution (EFC) requirements are considered for this grant. Funding is limited. Students who file their financial aid applications by the priority deadline will be considered first.

### Governor’s Scholarship

Connecticut residents who are undergraduate students can apply to the Connecticut Board of Higher Education for consideration. Eligibility is based on SAT scores of at least 1,800, or rank in the top 20% of their high school class. Financial need is also a criterion. Applications are available at high schools or at www.ctdh.org and must be submitted by February 15. Students who are recipients of CSP awards must follow the state renewal process each academic year.

## Named Scholarships

### UNDERGRADUATE

**Alumni Scholarship Fund.** Created in Spring 2004 by the Alumni Association for a junior or senior facing financial hardship with a GPA of at least 3.00 and consideration given to the student’s character, academic accomplishments, participating in activities or clubs on and off campus, community service, athletic activity participation, contributions to the University community, and similar criteria. The intent of the scholarship is to prevent the recipient from being compelled to discontinue his or her studies at the University due to such financial hardship.

**The Michael J. Antuori Scholarship.** For academic excellence in Anatomy and Physiology for a student in the Fones School of Dental Hygiene.

**Bigelow Family Scholarship.** Two Bigelow Scholars will be chosen from each class. The recipients must be from the region and have an academic record that shows success in the past and promise for the future.

**Alfred V. Bodine Memorial Scholarship Fund.** Established by contributions from friends in memory of Alfred V. Bodine and by a bequest from the estate of Mr. Bodine. Alfred Bodine was a Bridgeport industrialist and civic leader and was chairman of the University of Bridgeport Board of Trustees at the time of his death.

**George C. Brown & Carol M. Wright Alumni Scholarship.** Established by Alumni George C. Brown ’64 and Carol M. Wright ’88. Income from interest on the endowment will be awarded annually to a student who has exhibited an interest in the Middle East and desires a better understanding of the region’s politics, history, arts or culture.

**Armand J. Cantafio Scholarship.** Established by Armand J. Cantafio, President of Northeast Electronics Corporation. To be awarded to a two or four year student in the Health Sciences who is from Fairfield County and is in need of financial aid.

**Allison Yeonsil Choi Scholarship.** The Allison Yeonsil Choi Scholarship was established in 2005 by family and friends in honor of Allison Yeonsil Choi, a University of Bridgeport Alumna. The award is available to those...
majoring in World Religions or whose primary field of study is either philosophy or history. It is meant to help the student with the purchase of books, software, or other materials related to their studies. Competition for this award will be announced in the Fall beginning in 2009.

**Anthony F. Colucci, Jr. Memorial Scholarship.** Established in 2013 in memory of Anthony F. Colucci, Jr. an Air Force Veteran and 1977 graduate in Accounting, provides scholarship for senior accounting majors that are also veterans. In the event there is not a candidate that meets all of the established criteria, priority will be given to a veteran going into their senior year.

**John and Wanda Cox Scholarship Fund.** Established by the family and friends of Mr. and Mrs. Cox in honor of their 25th wedding anniversary and additional gifts received upon the death of Mr. Cox, who was Vice President for University Relations. The annual income is awarded to a worthy and needy student from the Greater Bridgeport area.

**Harold Dart Endowed Scholarship.** The income shall be used by the Music Department at the discretion of the chair of the Music Department. Special preference to be given to an outstanding piano student for a yearly award as determined by the Music Department faculty.

**Delaney Memorial Scholarship.** Ms. Eileen A. Delaney, the originator of the Delaney Foundation, was interested in providing financial assistance to worthy and needy students in the Health Sciences to pursue their education in the field of health and medical education, in order to encourage the promotion of treatment and advancement in human care.

**Frederick A. DeLuca Scholarship.** The Frederick A. DeLuca Foundation Scholarship will be awarded to an outstanding deserving Freshman with prior academic achievement, participation in extra-curricular activities, employment while attending school and financial need. This is a renewable scholarship and the total award is in the amount of $5,000. This award will be distributed as follows: $1,000 the first year with a GPA of 3.0; $1,000 the second year with GPA of 3.2; $1,000 third year with a GPA of 3.4; $2,000 fourth year with GPA of 3.6. A renewal application must be completed each year accompanied by the student’s most recent academic transcript.

**Dean Francis X. Di Leo Memorial Scholarship.** The Dean Francis X. Di Leo Memorial Scholarship Fund was established by members of the Di Leo family, colleagues, friends and graduates of the University of Bridgeport School of Business and Public Management in honor of the former dean of the college. The income from the invested principal is awarded to deserving full-time, part-time graduate or undergraduate students enrolled in the School of Business.

**Catherine Doyle Scholarship.** Established by Frank P. Doyle. Income to be awarded to deserving students, with academic promise and financial need, who are pursuing careers in the Health Sciences.

**William B. Dragan Scholarship.** Established by Centrix, Inc., in support of the mission of the Fones School of Dental Hygiene, for Connecticut, preferably Greater Bridgeport area, Dental Hygiene students demonstrating financial need, good behavior and character and maintaining at least a 3.00 GPA.

**Dr. Frank J. Dunnigan Scholarship.** Established by funds from the Prentice-Hall Foundation. Scholarship grants will be awarded to exceptionally qualified students majoring in Business who may be either an entering freshman or have reached any other class level.

**Dr. Edwin G. Eigel, Jr. Memorial Scholarship.** Established in memory of the 7th President of the University, this scholarship may be awarded initially or subsequently to students of good behavior and character, they have earned at least a 3.50 GPA for each semester enrolled at UB, while successfully and continuously earning 60 semester hours at UB during the two academic years preceding the initial award.

**Engineering Scholarship.** The School of Engineering announced on August 28, 2013 that Distinguished Alumnus Roy H. Friedman ’46, president and CEO of Standard Oil of Connecticut, and his wife Aline Friedman, have given funding for scholarships supporting top-performing Engineering students. The first Roy and Aline Friedman Excellence in Engineering Scholarship will be awarded in spring 2014 to one or several undergraduate or graduate Engineering students who have shown excellence through high grades, scholarly activity, and humanitarian character, and have demonstrated financial need. Finalists will be recommended by Engineering School Dean Tarek Sobh and Ausif Mahmood, chairman of UB’s Computer Science and Engineering Department. Scholarship recipients will then be chosen by Standard Oil executives. Dean Sobh said that the scholarship is indicative of the Friedmans’ loyalty to UB. “Roy works with our faculty, has hired our students, and has always been interested in the Engineering School. This scholarship is a reflection of that commitment, for which we are extremely grateful.”

**Bernard & Eva Ettlinger Scholarship Fund.** Annual income from the fund provides an award for worthy students of academic promise and financial need from the State of Connecticut.

**Jeffrey S. Ferguson Memorial Scholarship.** Established by Arthur and Ann Ferguson in memory of their son Jeffrey, an outstanding student while at the University, whose death left much potential unfulfilled. First preference is given to a student in Computer Science who is academically gifted and in need of financial aid.

**Fones Alumnae Scholarship.** Supported by the alumnae of the School of Dental Hygiene, provides an award of $100 each year for a deserving student in either the two or four-year Dental Hygiene program.

**Gould Scholarship Fund.** Financed from funds of the Gould Foundation, Inc., established under the will of Elizabeth B. Gould. Awards are made to qualified entering freshman women from Fairfield County with provisions for renewal. The scholarships provide $1,500 in the freshman year, $1,250 in the sophomore and junior years, and $1,000 in the senior year. Preference is given to students with academic promise, demonstrated leadership qualities, and financial need.

**Dr. Kenneth R. and Lancy A. Gray Scholarship.** The Lancy A. Gray Scholarship is made possible by Dr. Kenneth R. Gray (currently a member of the UB Board of Trustees) and his wife Doris to honor the memory of their daughter Lancy. She died in 2000 at the age of fifteen, by which time she had already become an accomplished
linguist and cellist.

University undergraduates in good academic standing, as well as incoming freshmen and transfer students are invited to apply if they have a demonstrated need for financial assistance based on existing FAFSA and University of Bridgeport standards and have an interest in fostering understanding amongst people of different cultures. Applicants must submit an essay of 600 words or more on the topic “Fostering Understanding Amongst People of Different Cultures.”

The Scholarship is awarded annually.

Anna Ryan Hamburger Memorial Scholarship. Established by her husband, Lewis Hamburger, with preference given to residents of the Greater Bridgeport area demonstrating financial need and academic standing.

Michael and Ida Hoffman Family Fund. Established by Mr. and Mrs. Sidney Hoffman and Mr. and Mrs. Maurice Hoffman in memory of their parents. It honors Michael and Ida Hoffman “who understood and were grateful for the freedom and blessings of America and is to be granted to a student who gives promise of being worthy of this tradition.”

Harvey and Joan James. Established by alumnus Harvey James ’74 and his wife Joan James. The income generated from the endowment will be awarded annually to a returning student who has demonstrated leadership in academics, campus life, and service to the community.

Joseph T. and Julia A. Kasper Memorial Scholarship. Established in memory of Joseph T. Kasper and Julia A. Kasper, his wife, by the Kasper Group, Inc. Mr. Kasper, who founded the firm in 1920, served as Bridgeport’s City Engineer during the 1960s. Scholarship assistance will be awarded to one African-American or Hispanic student graduating from each of the three Bridgeport high schools and expressing interest in engineering and its related fields. Should there be no eligible candidate as defined above, the criteria can be expanded in consultations with fund representatives.

Reverend Dr. Martin Luther King Memorial Scholarship Fund. A gift to the University for an endowed scholarship by the members of the Class of 1968.

Fred E. Lacey Memorial Scholarships. Established by a bequest from the late Fred E. Lacey, former president of the Lacey Manufacturing Company and a Trustee of the University. Income from the trust provides for deserving students in need of financial assistance.

Paul P. and Paulette Liscio Scholarship Fund. Established by Dr. and Mrs. Paul Liscio, the income from the fund is awarded annually to students in the Fones School of Dental Hygiene. This scholarship is available to students from the State of Connecticut who demonstrate scholastic achievement and financial need.

Dr. Henry W. Littlefield Scholarship Fund. Established in honor of UB President Emeritus, Dr. Henry W. Littlefield. Awarded to entering freshmen or transfer students with excellent academic records. Preference to residents of Southwestern Connecticut.

Sid Litwalk Alumni Scholarship for the Performing Arts. Established by long-time friend of the University and valued alumnus Syd Litwalk ’52. Income from the endowment is awarded annually to a student in the performing arts who has demonstrated an exemplary level of commitment.

Earl E. Mastri Memorial Scholarship. Established by the friends and family of Earl E. Mastri to encourage and assist Bridgeport area scholar athletes with demonstrative academic and athletic ability, an inquisitive mind, a sensitivity to people and their needs and the potential for leadership and achievement.

Charles E. Merrill 50th Anniversary Scholarship. Established by the Charles E. Merrill Trust in recognition of the University’s 50th Anniversary. Income from an endowment of $20,000 is provided annually as financial aid to students in various fields of Business Administration. The Merrill Trust was founded by Charles E. Merrill in 1973. Mr. Merrill founded the investment firm of Merrill, Lynch, Pierce, Fenner & Smith, Inc. in 1914.

Gerald L. Phillippe Memorial Scholarship. Made possible by members of the Elfin Society, Bridgeport Chapter, of the General Electric Company. The annual income from the endowment is used for a scholarship or scholarships for needy and worthy students of families residing in Fairfield County. First preference is given to students of the minority community.

President’s Merit Scholarship. Paying forward the scholarship that Russell Stanley received in 1966-1967, an incoming freshman with an outstanding High School Record, High SAT’s, High Rank in their Graduating Class, and demonstrative need would be eligible for this scholarship.

Harriet M. Radler Memorial Scholarship. Established by Louis Radler, President of Chesco Industries, alumnus and member of the Board of Trustees, provides an annual award with first preference given to a needy, deserving, part-time student. Also, Scholarship to be awarded to a student enrolled in the Health Sciences, residing in Fairfield County, with academic promise and financial need.

Melissa Wendy Rainville Fund. Established by her mother in memory of Melissa who was an Academic Advisor in I.D.E.A.L. program. This award is given to an I.D.E.A.L. student.

Mark L. Ritter Alumnus Scholarship. This Scholarship was established to encourage a Marketing major and permanent resident of New York State to pursue studies at the University and who is need of financial aid.

Natalia B. Romalis Scholarship. The Scholarship is to be given to a Mathematics major for “Academic Excellence in Mathematics.” The Director of the Division of Mathematics & Sciences will appoint a committee of faculty from that division to select the recipient.

Clarence D. L. Ropp Scholarship. Established by the class of 1963 in honor of Dr. Clarence D.L. Ropp, retired dean of the College of Arts and Sciences, in appreciation of his dedicated service and devotion to the University for over thirty-five years. The income from this fund is awarded to a needy senior or seniors who have earned a specified cumulative quality-point ratio.

Wanda B. Russo Health Science Scholarship Fund. Established by Dr. Robert Russo and Wanda B. Russo, a Trustee of the University. Students in Health Sciences residing in Fairfield County, with academic promise and financial need are eligible.

Elta and Jack Sabarsky Scholarship. Established by Neil and Michael Mellen in honor
of Etta and Jack Sabarsky, in appreciation of the support and encouragement they have given to Neil and Michael at important times in their lives. Awarded annually to a senior majoring in Business who is in financial need and could not complete his/her studies without this scholarship.

Susan Terzian Memorial Scholarship Fund. Established by her mother, Roxy Terzian; her aunt, Rose Gadakian, and friends, associates, and sorority sisters in Omega Phi Alpha, a service sorority, in honor of Susan Terzian. The scholarship is awarded annually to a member of the sorority or to a woman Biology major who has completed her freshman year.

Ian Tesar Design Excellence Scholarship. The friends and colleagues of Ian Tesar, in his honor and on the occasion of his retirement from Robbins Tesar have established a scholarship for the Outstanding Sophomore Design student who has registered for his junior year with a GPA of at least 3.00 and who has taken an active role in the design department and the student IDSA chapter.

Robert J. and Phyllis P. Tobin Scholarship. Established by Mr. Tobin and Mrs. Tobin, a University of Bridgeport alumna. Income from the endowment provides an annual scholarship to a freshman student who has achieved high academic grades in secondary school, who has demonstrated leadership qualities, has good character, and requires financial assistance.

John W. Waser ’50 Scholarship. The John W. Waser Scholarship provides general scholarship assistance with preference for students of electrical or mechanical engineering. The endowment comes at the bequest of Marie C. Waser in memory of her brother, a 1950 graduate in mechanical engineering.

George R. Weppler Memorial Scholarship Award. Established by a gift of the Harvey Hubbell Foundation in memory of George R. Weppler, a Trustee of the University of Bridgeport. The annual income is used for Engineering scholarships.

John C. White and Marilyn L. White Memorial Scholarship. Established in 2005, for Basketball Scholar Athletes of outstanding character, John C. White, a Trustee and 1950 graduate in Business, and his wife were great fans of UB Basketball.

Hinda M. and Martin F Wolf Scholarship. A full-time undergraduate in the College of Public and International Affairs, majoring in Criminal Justice with an interest in pursuing a career in law or a related field, residing in the Greater Bridgeport area, demonstrating financial need and maintain satisfactory academic standing.

AWARDS AND PRIZES

Harvey Herer Memorial Fund. Awarded to a Women’s Basketball Team junior with the highest GPA at the Spring Sports Banquet.

William E. Laur Achievement Award. The will of William E. Laur specifies that the award to be known as the William E. Laur Achievement Award for a student in the graduating class of the Elementary Education Section of the Graduate School of Education, who ranks at or near the bottom of his graduating class and receives his/her M.S. in Elementary Education and who is a deserving student.

Samuel Lioon Dietetic Award. Douglas Laboratories has established “The Samuel Lioon Dietetic Award” to be given to students in the College of Naturopathic Medicine.

Phi Kappa Phi Freshmen Achievement Award. Established in 2007 by Dr. Kuen Choi, Professor Emeritus in the School of Business.

Charles E. Reed Science Award. Established by the Board of Trustees of the University of Bridgeport to honor Dr. Charles E. Reed for his distinguished leadership as Chairman of the Board from 1978 through 1983, and in recognition of his outstanding contributions to the field of science. The award will be presented annually to an undergraduate student who has achieved the highest level of excellence in scientific and/or engineering studies at the University of Bridgeport.

Graduate Scholarships

Applications are available in January of each year for the following year’s graduate scholarships.

SCHOOL OF BUSINESS & SCHOOL OF ENGINEERING

Iris L. Bresky Memorial Scholarship offers support for students in HISP program. First preference is to an Argentine student majoring in Computer Engineering or Business Administration.

Allan M. Chanales Memorial Scholarship. Established by the TRW Corporation for the benefit of a student in Computer Engineering.

Dean Francis X. DiLeo Memorial Scholarship Fund was established by alumni, faculty and friends of the late Dean Francis X. DiLeo. Income from this fund provides partial scholarship awards to deserving students on the basis of academic excellence and leadership.

Kirnankumar R. Gopu Memorial Scholarship. Established by the family & friends of Kimkumar R. Gopu, who was lost in the terrorist attack on the New York World Trade Center on 09/11/01, while he was on a Cooperative Education assignment at Marsh & McLennan, Inc, and working for an M.S. degree in Computer Science. This scholarship is for full-time international students in the School of Engineering majoring in Computer Science with at least a 3.50 GPA.

SCHOOL OF EDUCATION

Lydia A. Duggins Memorial Fund. Created in honor of Dr. Lydia A. Duggins, a cherished and renowned Professor of Reading at the University of Bridgeport, this fund will be used to provide scholarships for students in Education.

Peter Gebrig Linabury Memorial Fund. Established in 2012 by his family, this scholarship is to be awarded to students changing careers to become teachers in elementary education.

Richard Conant Harper Scholarship. Established by Dr. Richard C. Harper upon his retirement from the School of Education after 20 years of service to assist single mothers in their quest to become certified public school teachers.

Lauren Rousseau Elementary Education Memorial Scholarship. The Lauren Rousseau Elementary Education Memorial Scholarship, established to honor the memory of Lauren Gabrielle Rousseau, a 30-year old teacher, who was one of the 26 individuals who lost their lives in the tragedy at Sandy Hook Elementary School on December 14, 2012, will be awarded to an applicant
seeking certification in elementary education who is a highly motivated, passionate, strong individual with a desire to make a meaningful contribution to the lives of young children through their teaching.

**Drs. Louise and Anthony Soares Scholarship** in Teacher Education is awarded annually, with first preference given to a graduating senior at the University of Bridgeport wishing to pursue a teaching certification or a master’s degree in Education at UB. If that person is not available, the scholarship may be awarded to a student at the graduate level who has achieved a 3.0 QPR on an undergraduate basis and has financial need.

**Augusta Silverstone Memorial Scholarship.** Given by her sister, Minnie Silverstone, in recognition of Augusta’s contributions as an educator and counselor with the Bridgeport Board of Education. Income will be awarded as financial aid to a graduate student in either the School of Education or the Division of Counseling and Human Resources. First preference is to be given to students who have come through or plan to work within the Bridgeport school system.

**CHIROPRACTIC COLLEGE**

**Chiropractic Scholarships.** Scholarships will be awarded on the basis of cumulative academic achievement.

**COLLEGE OF NATUROPATHIC MEDICINE**

**Paul C. Bragg Health Science Scholarship Award.** Established in 2011 for 2nd, 3rd or 4th year Naturopathic students.

**Eileen M. D'Angelo Memorial Scholarship.** Awarded annually to a full-time second year student in the College of Naturopathic Medicine, who has maintained a 3.0 grade point average and shows financial need. Preference will be given to candidates returning to school after two or more years of work experience; participating in outdoor activities and/or athletic sports; and balancing perspective and concern for the environment.
Students are encouraged to take an active role in the life of the campus community, where there are many opportunities to contribute to group decisions, practice leadership, sort out priorities and make personal choices. Students at the University of Bridgeport are responsible for making their own decisions and forming their own judgments concerning personal, social and academic activities. They share the responsibility for maintaining the educational climate needed for learning and for personal growth. The University retains high expectations of appropriate behavior, and expects that when students decide to enroll they will abide by all the rules of the University.

When the University deems it necessary it reserves the right to notify the parent or guardian to whom a student is financially dependent regarding the health, academic or disciplinary status of the student. (Dependency is defined by Section 152 of the 1954 Internal Revenue Code).

Services

ADVISING
All students are assigned a faculty advisor through their departments and colleges. It is incumbent upon the student to meet with his/her advisor on a regular basis. (See Academic Regulations).

THE CENTER FOR CAREER DEVELOPMENT
The Center for Career Development is a comprehensive career counseling and resource center dedicated to empowering students as active participants in their own professional and career development. The Center for Career Development is open to all students and alumni seeking assistance with career related issues. Career Development staff meets individually with students and alumni to discuss major selection, career decision making, graduate school preparation, as well as job and internship planning. One-on-one career counseling appointments and walk-in hours (designated times where no appointment is necessary) are available to all students and alumni, as well as access to online resume/cover letter critiques. In addition, the center offers a variety of educational materials and online resources through the Career Services Virtual Career Center (through myUB portal access).

UB’s Center for Career Development also hosts career fairs and other related career development workshops and events throughout the year. A variety of local, national, and international organizations list full-time, part-time, and internship positions with the center. Students and alumni are encouraged to view these listings on the Career Development website and register on-line to get updates about events and participate in our resume referral program. For more information contact our office at 203-576-4466, email us at careercenter@bridgeport.edu, or visit our website at www.bridgeport.edu/career.

ORIENTATION
New student orientation programs are designed to introduce students to the University of Bridgeport community. The orientation program begins a few days prior to the start of classes. This gives incoming students the opportunity to get settled in their new environment and to become familiar with their academic program. Formal and informal social and informational sessions provide students with the opportunity not only to learn about the University’s policies, but to meet and socialize with other students. All new students are expected to attend.

CAMPUS ACTIVITIES AND PROGRAMS
Extracurricular activities are an important part of the college experience. Students plan programs and activities that are of interest to them. The professional staff works with individual students as well as with the various organizations and clubs to meet the intellectual, social, and cultural needs of the University community. There are many opportunities for students to participate in the planning of these activities.

ORGANIZATIONS AND CLUBS
The University supports a wide range of student clubs, organizations and special interest groups that expand and cultivate the academic, professional and cultural interests of students. Each group develops,
within broad University guidelines, its own policies and programs with the assistance of a faculty or staff advisor.

The following is a list of clubs and organizations that were registered for the 2012/13 academic year;


**FRATERNAL ORGANIZATIONS**

Fraternities and sororities contribute to University social life and offer opportunities for the development of leadership skills and provide volunteer service to the campus and to the greater Bridgeport community.


**VOLUNTEER OPPORTUNITIES**

UB students are actively involved in making significant contributions to those in need in the greater Bridgeport community. Some of the programs UB students are involved in include tutoring local elementary and high school students, sponsoring parties and dances for area youth, visiting the elderly, assisting at soup kitchens and food banks, sponsoring clothing and food drives and organizing fundraisers for local charities. Listings of community service opportunities can be found through the Office of Campus Activities & Community Services room 231, Student Center, as well as on line through the Student Affairs website, http://www.bridgeport.edu/communityservice.

**FACILITIES**

Although opportunities for social activities occur everywhere on campus, the following facilities are used for student-related social, recreational, and organizational activities.

*John J. Cox Student Center* provides many facilities for student life activity. The Social Room, Campus Information Center, meeting rooms, commuter-student lounge, Knight's End café, student-run coffeeshouse, game room and billiards room are all part of the Student Center. Offices for campus organizations such as the Student Government Association, "The Scribe" student newspaper, as well as several other student organizations, are also housed in this facility. The Student Center is also home to several offices of the Division of Student Affairs. Programming in the Student Center ranges from dance parties, concerts, semi-formals and special dinners to movies, lectures and fashion shows.

*Carstensen Hall* gives special opportunities to students who are seeking to maintain and enrich their spiritual life on campus. Carstensen Hall houses the Interfaith Center. Adjacent to the Student Center, it provides a quiet, warm atmosphere in which both worship and fellowship are part of every day.

*Wheeler Recreation Center* is a complete recreation physical fitness facility with a 25 meter, 6 lane pool; two racquetball courts; three multi-purpose indoor courts for tennis, volleyball, and basketball; a martial arts studio, a free-weight room, a 16 station universal gym room, saunas, steam bath and indoor track. Students use the Center for personal recreation, intramural team events, and organized group events. Aerobics, swimming, yoga, weight training, lifeguard training, first aid/CPR training, and tennis lessons are offered. Tae Kwon Do is also offered.

**MEDIA**

The University supports a student news publication, the Scribe. The residence halls, as well as the staff of the Division of Student Affairs, publish informational newsletters as well.

**PART-TIME STUDENT SERVICES**

Part-time students may use all of the services available to full-time students. Admission staff members provide entry counseling to determine if students are “traditional” or “non-traditional” and make appropriate assignments to the colleges.

Traditional students are those enrolled in a regular program on the Bridgeport campus in the usual University manner in terms of scheduling and location. Non-traditional students are those enrolled in adult degree programs and those attending class at UB-Stamford Center or any of our other branch campuses.

Since many part-time students are employed or have responsibilities at home, schedules have been arranged so that most students come to class two nights per week. Some courses are offered on Mondays and Wednesdays and others on Tuesdays and Thursdays, while others are arranged in special scheduling formats. Information describing new student orientation, campus resources, workshops, student publications, social and cultural activities may be obtained from the Division of Student Affairs.

**RELIGIOUS LIFE**

Although the University of Bridgeport is non-sectarian according to its charter, it does not ignore the ethical and moral ideas common to all religions.

The University calendar does not reflect observance of religious holidays but University policy holds that all students are free to observe their respective holidays without prejudice.

Ministers and/or advisors are available to be
Student Affairs

members of religious groups on campus. A sanctuary and a Moslem Prayer Room are also available. Facilities are available for meditation, quiet study, recreation, group meetings, dinners, and religious services.

Permanent space needs will be considered by a committee consisting of the Dean of Students, the Academic Provost, the Building Manager and the University Attorney. Temporary space request are to be made to the Dean of Students.

The focal point of Carstensen Hall/Interfaith Center is Carstensen Protestant Chapel. The building and the Chapel were named in memory of Hazel Weed Carstensen by Trust Agreement.

STUDENT CONDUCT

The mission of the Student Conduct Office is to articulate and oversee the consistent implementation and enforcement of the University’s Student Code of Conduct.

The goals are:
- to educate the University community regarding the Student Code of Conduct;
- to clearly articulate, implement and enforce the Student Code of Conduct and standards of behavior; to educate the University community as to the consequences for violating this Code of Conduct;
- to adjudicate each case expeditiously; and
- to train those who will assist the Student Conduct Administrator as well as those who will serve on the Student Conduct Board.

STUDENT HEALTH SERVICES

SERVICES

The mission of University of Bridgeport Student Health Services is to promote the well being of students. We provide high quality, culturally competent, outpatient ambulatory care for the treatment of acute illness and injuries. In addition, health education programs are offered to the campus community.

Student Health Services does not seek to replace family physician care but rather to supplement that care during years when the student is attending the University, often at some distance from home. Student Health Services' emphasis is geared towards wellness. We offer health education, preventive health screenings, health promotion programs and immunizations. Students' individual needs are attended to in a confidential and caring manner. All information and records pertaining to any aspect of a student’s health are strictly confidential.

STAFFING

One Medical Director, two part-time APRNs, two full-time registered nurses, and an Office Manager staff the Center.

LOCATION

Student Health Services is located at 60 Lafayette Street, Room 119.

HOURS

Monday through Friday, 8:30 am-4:30 pm. To make an appointment with a Medical Doctor or the Nurse Practitioner, please call (203) 576-4712.

HEALTH REQUIREMENTS

MEASLES, MUMPS, RUBELLA IMMUNIZATION

Connecticut Public Act No. 89-90 requires all new students and returning students born after December 31, 1956 to provide proof of immunization against measles and rubella. You are required to provide proof of one Rubella Vaccine and two doses of measles vaccine:
1. First dose on or after 12 months of age and given in or after 1969.
2. Second dose given on or after January 1, 1980.

3. Laboratory evidence (blood test) of immunity is acceptable in lieu of administration of vaccine, but you must provide proof of immunity with a laboratory slip.
4. History of having had the disease is not acceptable documentation of immunity.

VARICELLA (CHICKENPOX) IMMUNIZATIONS

1. Two vaccines (12 weeks apart if vaccinated between 1 and 12 years and at least 4 weeks apart if vaccinated at age 13 years).
2. Laboratory evidence (Blood Test) of immunity is acceptable in lieu of administered vaccine, but you must provide proof of immunity with the laboratory slip.
3. A documented history of having had the disease by a medical doctor or public health department is acceptable documentation.
4. Students born in the United States before 1980 are exempt.

Students registering at the University of Bridgeport are required to bring proof of immunization listed above prior to registration. Students who will be residing in on-campus housing will also be required to provide proof of meningitis immunization.

TUBERCULIN TESTING

Tuberculin Testing (PPD) is required within six months prior to admission to the University. Tuberculin Testing is not required for IDEAL students, though it is highly recommended by Student Health Services.

HEPATITIS B VACCINE

College students are at an increased risk of developing a Hepatitis B infection. All students are strongly encouraged to be vaccinated for Hepatitis B.

STUDENT HEALTH INSURANCE

All full-time undergraduate students, all students living in campus housing, all athletes and all Health Sciences majors are required to participate and are automatically enrolled in the injury plan at registration.

All full-time undergraduate students and all students in campus housing are required to
participate and are automatically enrolled in the Sickness plan at registration and charges are added to their account, unless proof of comparable coverage is furnished by the deadline date indicated on the Waiver Card.

All international students are required to participate and are automatically enrolled in both the Injury and Sickness plans at registration and charges are added to their account. Coverage for international students cannot be waived.

Part-time students taking at least 6 credit hours and graduate students who are not international students, or living in campus housing may participate in the Injury and Sickness plans on a voluntary basis. Dependents of those enrolled for both Injury and Sickness may also participate on a voluntary basis.
different price structure. Room preference assignments are subject to availability with some restrictions. Efforts are made to match new roommates by preferences stated in their housing contract. Students may seek a change in roommates after the first week of classes but before October 1 (fall semester) or March 1 (spring semester). Because the University is not responsible for theft or damage to personal property, students are advised to obtain renter's insurance, or ensure coverage under their parents' homeowner’s policy.

**RESIDENCE AND MEAL PLAN REQUIREMENTS**

All students who are full-time undergraduates are required to live in University residence halls unless they meet one or more of the following criteria:

1. Those who have attained the age of 21 by the first day of classes.
2. Those who have accumulated 90 academic credits (including transfer credits) by the first day of classes.
3. Those who are living at home with parents, a spouse or other immediate relatives within a 50 mile driving distance of the University.

Exceptions to this policy must be requested from the Office of Residential Life and Student Conduct in writing and approved by the Director of Residential Life and Student Conduct by the first day of classes. The Residential Life “Easy Living” package includes both room and a choice of meal plan options.

Meals are served three times daily, with the exception of Saturday and Sunday when two meals are served. The Dining Hall is closed during vacation periods as scheduled in the University calendar. Kosher meals are available through the Dining Hall upon request.

Winter and summer housing is available on a limited basis and under separate contract. Additional requirements may apply.

The Residence Hall and Meal contracts, once signed by the student, are binding for the academic year (not the semester).

**Student Conduct and General Standards**

Students at the University of Bridgeport are expected to respect the rights of others, exercise responsible judgment and follow high standards of personal conduct. Students are expected to involve themselves in activities that promote the welfare of the University and to behave with courtesy and restraint toward fellow students and University staff. The University fosters a multicultural, international environment and does not condone or tolerate discrimination on the basis of gender, sexual orientation, race, color, religion, age, national or ethnic origin, creed, political affiliation, or handicap. The University strives to create an atmosphere of mutual trust between individuals, promoting self-discipline, and community standards.

At the same time, the University maintains concern about the behavior of its students both on and off campus. In the maintenance of its academic, social and health standards, the University reserves the right to be the sole determiner as to whether a student should be removed from residence life, receive fines or sanctions, be suspended or expelled, granted a leave of absence or dismissed. A student suspended, expelled from the University is responsible for the full payment of his/her financial charges for the semester.

Students are expected to conform to all governing regulations of the University as outlined in the Key to UB (Student Handbook), the Catalog and all official notifications of policy. A student will be subject to University disciplinary procedures if his/her on or off-campus behavior results in violations of these regulations, civil and/or criminal law. Disciplinary action, notification of charges, disciplinary procedures, appeals and a review of actions that may lead to disciplinary procedures are identified and described in the Key to UB (Student Handbook). It is the responsibility of the student to familiarize him/herself with all University and Residence Hall codes, regulations and policies, which are all available on-line on the University’s website and portal.
Academic Regulations and Procedures

GENERAL INFORMATION

The Advising System

The University provides academic and personal services to support each student’s effort to gain the best possible undergraduate education. Selecting a course of study, choosing a major, and deciding upon a career are crucial decisions for every student. The Advising System functions to assist students in designing their programs according to their individual interests and needs.

Students are assigned a faculty advisor upon acceptance to the University. Faculty advisors are available for consultation throughout the student’s tenure for purposes of academic advisement and assistance with course selection. Advisors approve registrations for traditional undergraduates and program or major changes for all students. For assistance with non-academic concerns, professional counselors are available through the University’s Student Affairs Division.

Interruption of Studies

WITHDRAWAL FROM A COURSE

Undergraduate students may withdraw from any course with advisor approval. Graduate students may withdraw from any course other than a Thesis, Independent Study, Research or equivalent. Course withdrawals may be requested up to the last date to withdraw from courses as published in the course schedule book or academic calendar. To withdraw from a course, obtain a Schedule Adjustment Form from the Office of the Registrar and take it to your advisor. Advisor’s signature is required to withdraw from any course. Return the signed withdrawal form to the Office of the Registrar for processing.

If a student officially withdraws from a course during the first three weeks of a class, no grade will be reported and the course will not appear on the student’s transcript. On occasions a withdrawal is granted after the first 20 days for reasons beyond the student’s control as determined by the student’s advisor. In these cases, a “W” will be posted on the student’s transcript for the course. When a student registers for a course, but ceases to attend class without filing an application for withdrawal a grade of “F” shall be posted to the student’s transcript. Tuition refunds for course withdrawals will be calculated according to the University’s official refund policy. Federal Financial Aid awards are subject to adjustment when a student withdraws from the University. Cessation of attendance, notice to instructors, or telephone calls to the University, do not constitute official withdrawal from the University.

WITHDRAWING FROM THE UNIVERSITY

Students who withdraw from all courses and thus from the University, must file an Application to Withdraw at the Office of the Registrar. Students must meet with the Dean of Students prior to submitting the withdrawal form to the Registrar.

No student is considered officially withdrawn and no refund of tuition will be made unless the student has contacted the Office of the Registrar. If a student fails to register for a semester without being granted a leave of absence, or the leave of absence has expired, the student will be administratively withdrawn from the University.

CANCELLATION

Students presently enrolled may cancel their registration or officially withdraw for the subsequent semester while completing the current one. Students must contact the Office of the Registrar to cancel classes.

INTERNATIONAL STUDENT ATTENDANCE POLICY

International students must pursue a full-time course of study to maintain status and are required by the conditions of their visa to attend scheduled classes. Failure to attend classes may lead to termination of SEVIS records. Before making changes to their schedules, International students must speak with an academic advisor and consult with International Student Services. ISS is located on the Garden Level of Wahlstrom Library.

Readmission

REGULAR READMISSION

A student who officially or unofficially withdraws from the University must apply for readmission. Readmission is necessary with any break in attendance for full-time students and after a break of more than one semester for part-time students. A student who withdraws officially, or unofficially, and subsequently applies for readmission is required to meet the degree requirements and conditions current at the time of readmission. Students who have attended another accredited institution in the interim must present complete official transcripts with their application for readmission.

Applications for readmission are available from the Registrar’s Office.

READMISSION IN CASES OF DISCIPLINARY EXPULSION AND SUSPENSION

Disciplinary expulsion and suspension may be incurred as a result of unacceptable conduct. See the Key to UB for rules, regulations and procedures for readmission.

LEAVE OF ABSENCE

Students who must discontinue enrollment for less than one academic year and who have a commitment to return to the University must submit a written request for a Leave of Absence to the Office of the Registrar. A copy of this request must also be sent to the Dean or Director of the student’s program. Students who are in good academic standing and who have met all University requirements may return to the University at the beginning of any semester within the one-year Leave of Absence period.

A leave of absence may be extended for an additional year upon approval of the program Dean or Director. A written request is required for consideration of an extended leave of absence and the leave will be noted on the student’s permanent record.

FIVE YEAR RULE FOR UNDERGRADUATE STUDENTS

Students who interrupt their studies for a period exceeding five years must obtain written permission from the Dean of their College or Director of the School to apply previously earned credits toward their degree.

Application for Graduation

You must apply for Graduation one term prior to the completion of your last class. Students must Log into their https://
Transcripts

Students may request official transcripts to be mailed to other institutions, prospective employers, or other authorized agencies, by completing a transcript request form available in the Office of the Registrar. Please allow ten (10) days for requests sent by mail to be processed. Each graduating student will receive one free, unofficial copy of his/her transcript together with his/her diploma upon graduation. Subsequent transcript requests must be made to the Office of the Registrar in writing. Transcripts will be mailed to the address listed on the transcript request form.

ORDER TRANSCRIPTS ONLINE

The University of Bridgeport has authorized the National Student Clearinghouse to provide transcript ordering online. You can order transcripts using any major credit card. Your card will only be charged after your order has been completed.

To order an official transcript(s), login to the "https://www.studentclearinghouse.org/secure_area/Transcript/login.asp?FICEcode=00414600"Clearinghouse secure site.

The site will walk you through placing your order, including delivery options and fees. You can order as many transcripts as you like in a single session. A processing fee will be charged per recipient.

Order updates will be emailed to you. You can also track your order online.

WEBADVISOR

Current students and recent graduates (students who have graduated in the last seven years) can log into "https://webadvisor.bridgeport.edu/WA2/WA2"WebAdvisor to request a transcript.

UNDERGRADUATE REGULATIONS & PROCEDURES

Classification of Undergraduate Students

SPECIAL STUDENTS

An applicant admitted with permission to take courses for which he or she is qualified, but not as a degree candidate, is a special student. Special students may later apply for matriculation and are subject to the same academic regulations as matriculated students. Only matriculated students carrying at least twelve semester hours are eligible for election to class and other offices (with the exception of the Part-time Student Council, and University Senate).

FULL-TIME STUDENTS

Normal academic progress is maintained by a student who:

1. Has been accepted into a degree program;
2. Is fulfilling the requirements of that degree program as described in this Catalog;
3. Has a cumulative quality point ratio of at least 2.0 (“C” average), or that required by the specific degree program if it is higher than 2.0; and
4. Registers for and completes at least 12 semester hours of credit each term (excluding co-op terms).

PART-TIME STUDENTS

Normal academic progress is maintained by a student who:

1. Has been accepted into a degree program;
2. Is fulfilling the requirements of that degree program as described in this Catalog;
3. Has a cumulative quality point ratio of at least 2.0 (“C” average), or that required by the specific degree program if it is higher than 2.0; and
4. Registers for and completes between 1 and 11 semester hours of credit each term.

CLASS STANDING

Students are classified according to the number of college hours satisfactorily completed:

<table>
<thead>
<tr>
<th>Class</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0-30 semester hours</td>
</tr>
<tr>
<td>Sophomore</td>
<td>31-60 semester hours</td>
</tr>
<tr>
<td>Junior</td>
<td>61-90 semester hours</td>
</tr>
<tr>
<td>Senior</td>
<td>91 and above</td>
</tr>
</tbody>
</table>
THE MAJOR
Most students matriculating in programs leading to an Associate’s or Bachelor’s degree declare a major when they are admitted to the university.

The student must earn a grade of “C-” or better in every major course. However, the student’s overall quality point ratio in major courses must be at least 2.0. In some cases, departmental requirements may exceed these minimums. If a student earns a grade of “D” or “F” in a course in the major field, he or she must obtain a written statement from the department chair specifying the procedure necessary to remedy the deficiency and remain in the major.

THE MINOR
The University offers the option of selecting a second area of specialization. Like the major, the minor was conceived to provide a unified, coherent program in a discipline or area of knowledge. While requiring a second focus for the student’s intellectual interests, it enables him or her to investigate the important concepts of a specific area and to acquire a firm basis for further study.

In terms of career preparation, the minor option can complement a regular major program or it may add an entirely new dimension to the traditional curriculum. A minor is a minimum of 18 credits to be defined by the School and Department.

In some cases, change of program may require a reevaluation of semester hours earned at UB or transferred from another institution. It is the student’s responsibility to consult with the chair of the anticipated major department to formulate a curriculum plan for the completion of that degree.

UNSPECIFIED STATUS
Unspecified status is designed primarily for those students who have not yet chosen a specific field of concentration within their College. The courses which they take under these circumstances will fulfill the majority of general college requirements during the first and second year of study.

Students who have been admitted to unspecified status must follow the procedure for change of major in order to become admitted to a specific major and must declare a major by the end of the sophomore year.

CHANGE OF MAJOR
If after matriculation a student wishes to change a major, it must be initiated by the student through the office of the senior administrator of the College or School. In some circumstances, change of program may require a reevaluation of semester hours earned at UB or transferred from another institution. It is the student’s responsibility to consult with the chair of the anticipated major department to formulate a curriculum plan for the completion of that degree.

Registration for Courses
The student must formally register for courses during the regular or early registration period. All changes for the semester are payable in full before or during registration unless the student has applied for the deferred payment plan. A program of fifteen or sixteen semester hours constitutes a normal load. No student will be permitted to register for more than eighteen semester hours in any one semester without the prior written approval of the appropriate College Dean or School Director.

CHANGE OF REGISTRATION
All changes of registration require the prior written approval of the student’s faculty advisor. Students shall refer to the published course schedule and Key to UB to determine additional approval procedures and requirements for all program changes. The student must submit all approved changes of registration, including course withdrawals, to the Office of the Registrar by the published deadlines.

CLASS ATTENDANCE
Undergraduate students are expected to attend their classes regularly. The instructor shall specify in the course syllabus at the beginning of the semester the extent to which the attendance factor will be taken into account when grades are calculated. Due allowance, however, will be made for such factors as illness, inclement weather, and severe personal or family problems.

UNIVERSAL ENGLISH
All student papers submitted to any instructor at the University must be of University standard in form, spelling, punctuation and literary organization. Instructors may refuse to read or to correct papers that are not in keeping with the standards of good English usage.

Grades and Quality Points
A semester hour is the unit by which credits are measured. A quality point is the numerical value assigned to letter grades A-F. Each grade is assigned quality points as shown below. The faculty uses the following criteria as bases for determining letter grades: “A” excellent; “B” above average; “C” average; “D” minimal pass; “F” failure; “I” or “R” incomplete; and “W” withdrawal. Letter grades may be assigned with “+” and “-” signs.

Other grades include pass-fail (earned under the University Pass/Fail Program): “S” - satisfactory completion of course requirements; and “U” - has not completed course requirements.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points (per semester hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.33</td>
</tr>
<tr>
<td>B+</td>
<td>3.00</td>
</tr>
<tr>
<td>B</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
</tbody>
</table>

The cumulative quality point ratio (QPR) is determined by dividing the number of semester hours attempted into the number of quality points earned. Non-credit courses and grades of pass in pass/fail courses are exempted from the computation of the quality point ratio. Incomplete (“I” or “R”) grades are not included in this computation until converted to a letter grade.
REPEATED COURSES

Students may repeat any course at any grade level below “A”. The grade from the first repeat of a given course will replace the first-time grade for the computation of the QPR, the original grade however, will remain on the transcript. The grade for a course repeated more than twice will be the average of all of the grades earned each time the course was taken. All repeated courses will be so indicated on the transcript.

PASS/FAIL OPTION  
(FREE ELECTIVES ONLY)

Undergraduate students may elect to take up to 6 courses in an academic degree program on the pass/fail basis. Only free electives may be chosen for the pass/fail option, and no more than two courses may be on that basis in a given semester. Request to take a course on the pass/fail basis must be made in writing on the appropriate form after registration in the course, but absolutely no later than the tenth day of scheduled classes in a regular semester, the fifth day for a ten-week course, or the third day for a five-week course. Students should review the complete regulations with their advisor before requesting the pass/fail option through the Registrar’s Office.

INCOMPLETE WORK

Incomplete grades (“I” or “R”) must be recorded by the date stipulated by the Registrar at the end of the semester. No incomplete will be so recorded by the Registrar unless it is accompanied by a clear indication from the course instructor of the nature of the work to be made up. The Registrar will provide appropriate forms with grade sheets. This information will be placed in the student files.

a. An “I” (incomplete) grade designates incomplete work in a course at the time of grading for reasons beyond the student’s control and determined to be bona fide by the instructor. These would include absence from a final examination or inability to complete terminal assignments due to illness, employment conflicts, etc. In such cases where the “I” grade is awarded the incomplete will revert to a failing grade if the unfinished work is not satisfactorily completed by the end of the semester immediately following the one in which the incomplete was granted, exclusive of the summer sessions. This time can be extended by the instructor for legitimate reasons.

b. A grade of “R” indicates incomplete work in thesis, research, or undergraduate or graduate student project courses. The “R” grade must be removed within a period of time specified by the instructor/mentor/project advisor or director. It must be within the maximum time allowable for degree completion in the academic program where the degree is being sought.

“W” GRADE

No student may withdraw from a course without the knowledge of his/her academic advisor, as indicated by that advisor’s signature on the change of schedule form. Withdrawal “W” grades are assigned based on the following policy statements:

1. If the student officially withdraws from a course during the official change of registration period, that course does not appear on the student’s transcript. This includes withdrawals initiated by the student and those initiated by the University (e.g., cancellation of course sections).

2. If a student officially withdraws from a course after the official change of registration period, but before the end of the official withdrawal period in a given semester or summer session, a grade of “W” is assigned and that course remains on the student’s transcript. Courses with the grade of “W” do not count toward the QPR but do count toward “hours attempted.”

3. The names of students who have officially withdrawn from a course and received the grade of “W” are so listed on the class roster for the balance of the semester.

4. Any exceptions to the above, including “late” withdrawals, must be individually approved by the appropriate Dean or Director and the Provost before they become official and are recorded.

CARNEGIE UNIT OF CREDIT

Note: The application of the Carnegie unit of credit has implications for graduation requirements, transfer credit policy, faculty load and for measuring program hours/income. The Carnegie Unit of Credit provides a guideline on the amount of time that a student is expected to dedicate to a one semester hour course in order to receive one semester hour of academic credit. The University of Bridgeport calibration of the Carnegie Unit of Credit is as follows:

Onsite Lecture Classes: To receive one semester hour of academic credit, the student is expected to attend a 50 minute lecture class per week and spend approximately two hours on assignments and study outside of the classroom throughout a fifteen week semester.

Online or Blended Learning Classes: Through Blackboard, Canvas, Wimba or other online tools and blended learning, students would be expected to complete 2.5 hours of activities per week over fifteen weeks to receive one semester hour of academic credit. This would include activities such as reading and responding to posted course materials, discussion board postings, and Skype or Wimba discussions.

Onsite Activity-based Classes: One hour and forty minutes of engagement in discipline-based activity and fifty minutes of study per week throughout fifteen weeks.

Clinics, Studios and Laboratory-Based Class: 2.5 hours of laboratory, clinical or studio activity per week for 15 weeks.

Independent Study: 2.5 Semester hours of Study per week over a 15 week Semester.

Other Forms of Learning: Academic credit based on a demonstration of competency in defined academic outcomes will be the exception and will be based on accepted instruments approved by the Deans and Program Chairs. These can include CLEP, CLEP tests, or examination of a portfolio by trained academics in the discipline in which the student seeks credit.

In all of these learning formats, contact hours and/or study/assignment hours would be increased each week in a summer or concentrated session to assure compliance with unit of credit guidelines.

Approved by University of Bridgeport Senate, November 30, 2010
Academic Regulations and Procedures

Off-Campus Study
Matriculated students are expected to take the courses for their degrees at the University of Bridgeport. Permission to take courses at other institutions for transfer credit will be given only for good and valid reasons and must be approved in advance and in writing by the student’s advisor. Permission will not be granted for courses currently offered by the University or courses within the last thirty semester hours before graduation, or for courses previously failed at the University. Matriculated students may not take courses at junior or community colleges for transfer credit at the junior or senior level toward their degrees.

CREDIT FOR LIFE WORK EXPERIENCE (CLWEP)
Some students acquire mastery over course subject matter through prior work or training experience. Many departments have developed examination and other assessment procedures to provide the possibility of credit for those experiences which correlate to specific course offerings in the University Catalog.

CLWEP credit may not be used to satisfy the minimum University 30-hour residency requirement. CLWEP credit is included in the student’s semester hours earned at the University and also in the total number of UB hours used to determine eligibility for graduation honors. However, such credit is not computed in the student’s quality point ratio at the University. Information on subject matter and evaluation procedures is available in the office of the Dean of the School of Continuing and Professional Studies.

COLLEGE LEVEL EQUIVALENT PROFICIENCY EXAM (CLEP)
The University of Bridgeport participates in the Educational Testing Service’s College Level Equivalent Proficiency Exam program. The basic purpose of this program is to give the student and non-traditional learner a means for assessing their levels of achievement and for requesting college credit for such achievement.

Undergraduate students may earn up to 30 semester hours of credit (one year’s studies) by demonstrating subject area competence through testing. CLEP credit may not be used to satisfy the minimum University 30-hour residency requirement. CLEP credit is not included in the student’s credit hours earned at the University of Bridgeport and is not computed in the student’s quality point ratio at the University. CLEP credit is not considered in the total number of UB hours used to determine eligibility for graduation honors.

Information on subject matter and testing procedure is available in the office of the Dean of the School of Continuing and Professional Studies.

ADVANCED PLACEMENT
A student may enter the University of Bridgeport as a freshman, but with advanced standing toward a degree. Advanced standing may be achieved by taking the Advanced Placement examinations administered by the College Entrance Examination Board. A score of three or above allows the student to earn up to eight credits in one subject area. Well qualified students may also earn advanced placement by taking courses for college credit in secondary school. Information regarding Advanced Placement is available in the Office of Admissions.

Academic Status of Students
The following policies and standards define the minimum requirements for maintaining academic status in the undergraduate degree programs of the University. Higher requirements may be established by the faculty for specific programs, subject to approval by appropriate College committees, the appropriate senior administrator of the College or School and the Provost. Such requirements are described in the appropriate section of this catalog.

NORMAL ACADEMIC PROGRESS
Normal academic progress refers to a student’s scholastic status in a degree program. The student who is not maintaining normal academic progress will be permitted to remain in a degree program while attempting to reestablish normal academic progress, unless and until the student is subject to academic separation as described below.

A student may be awarded a degree only when all degree requirements have been satisfied. In particular, a student who has failed to maintain normal academic progress at some point, must have reestablished normal academic progress before a degree is awarded.

Academic Separation
The following policies and procedures apply to all students, both matriculated and special.

FULL-TIME STUDENTS
In order to maintain satisfactory progress as a full-time student, it is necessary to attempt a minimum of 12 credits per semester. A full-time student whose quality point ratio is below 2.0 for a given semester is sent a letter of warning at the end of that semester.

A full-time student, who has attempted fewer than 19 semester hours and whose quality point ratio is below .75 is automatically separated at the conclusion of a semester.

A student is automatically separated from the University at the conclusion of a semester when the cumulative quality point ratio and UB semester hours attempted are as follows:

<table>
<thead>
<tr>
<th>UB Semester Hours Attempted*</th>
<th>QPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>Below 1.5</td>
</tr>
<tr>
<td>48</td>
<td>Below 1.7</td>
</tr>
<tr>
<td>72</td>
<td>Below 1.9</td>
</tr>
<tr>
<td>96 or more</td>
<td>Below 2.0</td>
</tr>
</tbody>
</table>

* Retaking a course does not count toward this total.

Maintaining satisfactory academic progress is essential in order to remain eligible for financial aid. Please refer to the financial aid section for further information on maintaining eligibility for financial aid.

PART-TIME STUDENTS
A student is automatically separated from the University when the cumulative quality point ratio and UB semester hours attempted are as follows:

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</tr>
<tr>
<td>96 or more</td>
<td>Below 2.0</td>
</tr>
</tbody>
</table>

READMISSION
A student who has been separated from the University under the above provisions may apply for readmission to the University no
Academic Regulations and Procedures

sooner than one full semester after separation. A readmission form is available from the Office of the Registrar. No course work at the University of Bridgeport is permitted during the period of separation.

NOTIFICATION
A student will be notified of his/her separation before the beginning of the following semester. It is, however, the student's responsibility to be aware of his or her academic status at all times.

APPEALS
Actions taken under the regulations pertaining to Academic Separation may have an immediate impact on a student's eligibility for financial aid. Students may appeal actions taken pursuant to these regulations. Appeals must be made in writing directly to the Academic Separation Appeals Committee within ten calendar days of receipt of notice of the action taken. The decision of the Dean will be made within twenty-one calendar days of the date of the receipt of the appeal. An appeal of separation from the University that is granted places the student in a probationary status. The conditions of this status, including its maximum duration, will be specified in the Committee decision granting the appeal.

Change of Status
FROM FULL-TIME TO PART-TIME
Students wishing to transfer from full-time to part-time status must secure the necessary forms from the Registrar's Office.

FROM PART-TIME TO FULL-TIME
Students wishing to transfer from part-time to full-time status must secure the necessary forms from the Registrar's Office.

Academic Honors
PRESIDENT'S LIST
A full-time student who, in a given semester, completes 12 or more semester hours with a quality point ratio of 3.7 or higher and with no incomplete grades is named to the President's List at the end of that semester. A part-time student who is matriculated and who, during a regular academic year, completes 12 or more semester hours with a quality point ratio of 3.7 or higher and with no incomplete grades is named to the President's List at the end of the academic year.

DEAN'S LIST
A full-time student who, in a given semester, completes 12 or more semester hours with a quality point ratio of 3.2 or higher and with no incomplete grades is named to the Dean's List at the end of that semester. A part-time student who is matriculated and who, during a regular academic year, completes 12 or more semester hours with a quality point ratio of 3.2 or higher and with no incomplete grades is named to the Dean's List at the end of that academic year.

NATIONAL HONOR SOCIETIES
Honor societies include Phi Kappa Phi, all University; Beta Alpha, accounting; Delta Mu Delta, business administration; Sigma Phi Alpha, dental hygiene; Alpha Sigma Lambda, part-time students; Pi Gamma Mu, international and national social science; Eta Kappa Nu, electrical engineering; Upsilon Pi Epsilon, computer science; and Sigma Xi, research and scholarship; Lambda Pi Eta (The National Communication Studies Honor Society); Theta Alpha Kappa (The National Religious Studies Honor Society); Pi Sigma Alpha (The National Political Science Honor Society); Sigma Iota Rho, The Honor Society for International Studies; Phi Sigma Lota (Honor Society of Languages), Alpha Phi Sigma (Criminal Justice Honor Society).

Requirements for Undergraduate Degrees
The stipulations in the list immediately below are only those which are common to the awarding of the Bachelor's degree. However, requirements specific to each College or School and to individual curricula and disciplines within each College or School also exist. The student must be especially careful to note all of these, since fulfillment of graduation requirements is the individual student's responsibility. No permission for deviation from published requirements is official unless it is made in writing and signed by the senior administrator of the College or School from which the degree is sought. It is recognized that the requirements for graduation in individual Schools may change. A student must meet the requirements for graduation which are current at the time of graduation, and consistent to the greatest extent possible with the degree requirements in existence at the time of the student's entry into the major. However, whenever a program is altered it is the University's responsibility to translate the student's previously completed work into the new program requirements so that the continuously enrolled student is not penalized for the adaptation. The only exception would be when the state or other licensing agency imposes a new requirement. The common requirements for awarding the Bachelor's degree follow.

A student must:
1. Have been admitted as, or have achieved the status of, a matriculated student in the College, and must have attained upper-class or major status.
2. Have completed the last thirty semester hours of work toward his or her degree under the direct auspices of the University. Under exceptional circumstances, the senior academic administrator may slightly modify this requirement.
3. Present an overall cumulative quality point ratio of at least 2.0 and, in addition, must have a quality point ratio of 2.0 or better in those courses taken for credit in the major. Each individual course in the major must be passed with a grade of “C” or better. The student must have earned the number of semester hours of credit required by the College or School and must not deviate from the curriculum as displayed in this catalog without the written approval of the appropriate senior academic administrator or his/her designee.

GRADUATION HONORS
Candidates for graduation who have completed at least sixty semester hours of academic course work at the University of Bridgeport in their junior and senior years are eligible for honors upon recommendation of the appropriate College faculty. The following standards are used:
1. The Bachelor's degree cum laude may be awarded to a student whose cumulative quality point ratio is at least 3.40.
2. The Bachelor's degree magna cum laude may be awarded to a student whose cumulative quality point ratio is at least 3.60.

3. The Bachelor's degree summa cum laude may be awarded to a student whose cumulative quality point ratio is at least 3.80.

The Associate's degree may be awarded cum laude to a candidate with a minimum quality point ratio of 3.2 and magna cum laude to those with 3.5. A minimum of 45 semester hours must have been earned at the University of Bridgeport.

GRADUATE REGULATIONS AND PROCEDURES

*For the Regulations and Procedures pertaining to the Graduate Professional Programs in Acupuncture, Chiropractic, Naturopathic Medicine and Human Nutrition, please see the appropriate program sections of this catalog.

General Regulations

1. The mere completion of courses and requirements does not guarantee continuation in the graduate program or advancement to degree candidacy.

2. Every student must consult with his/her assigned advisor to ensure a carefully planned program of studies.

3. A graduate student is expected to complete his/her degree program within seven years of admission. A student may, for sound and valid reasons, request his/her Dean for an extension of this time limit. Such a request must have the approval of the student's advisor, and Department.

4. The amount of graduate work transferable to a graduate degree is limited to two graduate courses. Courses applied to one degree or diploma normally are not transferable to a second degree or diploma. Courses presented for transfer credit must be graduate level study completed with a grade of “B” or above at an accredited institution. The transferred courses should be submitted within 15 days of notification of separation.

5. The requirements for a master's degree shall include at least one of the following: a comprehensive examination, a written thesis based on independent research, or completion of an appropriate special project.

6. Graduate programs require that all grades applied toward the degree be “C” or better. The grade of “C-” cannot be used to satisfy degree requirements.

Probation and Separation Policy

1. The minimum cumulative grade point average necessary to continue graduate studies is 3.0 and the minimum semester grade point average to continue graduate studies is 2.0.

2. A student who does not meet either the semester or cumulative grade point average will automatically be placed on probation for the next semester of study.

3. A student placed on probation must meet the standard for continuation at the end of the probationary semester. Failure to meet the standard will result in automatic separation.

4. Separation from the Program of Study may be appealed to the Academic Appeals Committee of the Graduate Council. The appeal must be in writing and must be submitted within 15 days of notification of separation.

5. A student separated from a Program of Study may apply for re-admission to the Program 1 year from the date of separation.

6. A student may not be placed on probation more than twice. Failure to maintain a cumulative 3.0 grade point average or a semester grade point average of 2.0 a third time will result in automatic, non-appealable separation. Application for re-admission cannot be made sooner than 1 year after the date of separation.

Classification of Students

DEGREE STUDENTS

All students who have formally declared their intent to pursue a program leading to a specified graduate degree are classified as Graduate Degree students and may fall into one of the following categories:

REGULAR

A student who has completed all the admission requirements and who has presented a background of scholarship and performance that indicates his/her capacity to profit from and complete a degree program is admitted as a regular degree student.

PROVISIONAL

A student who has met the general requirements for admission, but not those for full standing because the promise of achievement in the area of intended study cannot be accurately appraised at the time of admission, is admitted provisionally subject to conditions stated on the Certificate of Admission.

DEGREE CANDIDATE

A regular degree student who has successfully completed the first 12 hours of graduate study under the direction of assigned advisors and is, in the opinion of the faculty, worthy of continuing the pursuit of an advanced degree at the University, is a degree candidate. Application for degree candidacy must be filed with the major department after completion of 12 semester hours.

MATRICULATION MAINTENANCE

All regular and provisional graduate students must maintain matriculation continuously until all degree requirements have been met. Students may maintain matriculation in the following ways:

1. By registering for degree required course work.

2. By registering for continuous matriculation.


Students who fail to register for each semester through one of the options above will automatically be separated from their program.

* See Insert for current year’s Tuition, Fees, and Other Expenses.

NON-DEGREE GRADUATE STUDENTS

SPECIAL STUDENT

A college graduate from an accredited insti-
tution, who elects to take courses for which he/she is qualified but who has not been admitted to a degree program, is classified as a special student on the graduate level. If subsequently admitted to a degree program, there is no guarantee that courses taken as a special student will be counted towards the degree requirements; in any case, only twelve semester hours may be applied to a degree. Those graduate students classified as special graduate students are, therefore, urged to indicate to the Office of Admissions and the Registrar whether they wish to change their status to regular degree student prior to or immediately upon completion of twelve semester hours.

In order to register for graduate courses as a special student, a completed Application for Graduate Studies must be on file in the Office of Admissions.

**Evaluation and Grading of Course Work**

“A” indicates distinction; for work of exceptional quality.

“B” indicates above-average achievement; quality expected of a graduate student.

“C” indicates minimal achievement; not up to standards of graduate work.

“D” indicates below average achievement; no graduate credit possible.

“I” and “R” indicate incomplete graduate course work.

(a) An “I” (incomplete) grade designates incomplete work in a course at the time of grading for reasons beyond the control of the student and determined to be legitimate by the instructor. These would include absence from a final examination or inability to complete terminal assignments due to illness, employment conflicts, etc. In such cases where the “I” grade is awarded the incomplete will revert to a failing grade if the unfinished work is not satisfactorily completed by the end of the semester immediately following the one in which the incomplete was granted, exclusive of the summer sessions. This time can be extended by the instructor for legitimate reasons.

(b) A grade of “R” indicates incomplete work in thesis, research, or undergraduate or graduate student project courses. The “R” grade must be removed within a period of time specified by the instructor/mentor/project advisor or director. It must be within the maximum time allowable for degree completion in the academic program where the degree is being sought.

“W” indicates approved student withdrawal. In addition to the above, the grades of “A-”, “B+”, “B-”, “C+”, “C-” and “D+” may be assigned for graduate courses.

**Semester Hours Carried per Semester**

Nine semester hours of credit per term normally is considered a maximum full-time program for graduate students. A student desiring to take more than 12 semester hours must receive written permission from his/her advisor and the Dean or Director of the appropriate college or school.
The University of Bridgeport.

chosen professions. The Core Curriculum success in graduate schools or students' development and lay the groundwork for this curriculum are reading-and writing-ination and integrative learning. All classes in require interdisciplinary modes of instruc-
tion upon the interdependent nature of the
Commission because they encourage reflec-
lar, Core courses are chosen by the Core
The Core Curriculum is comprised of a co-
hours to be taken as Liberal Arts electives.
Curriculum and allows the remaining seven
requirements for the baccalaureate degree.”
The University of Bridgeport fully supports the educational philosophy behind this mandate.

The University of Bridgeport also believes that General Education should reflect the University's educational mission. The Core Curriculum draws upon the best traditions of American education and seeks to stimulate creativity, intellectual growth, and development of analytical thinking; but it also advances UB's distinctive educational outlook, which is international in character and commitment. Thus the University requires that thirty-three of the forty hours of General Education be distributed within its Core Curriculum and allows the remaining seven hours to be taken as Liberal Arts electives.

The Core Curriculum is comprised of a coherent set of courses that reflect the mission of the University of Bridgeport. In particular, Core courses are chosen by the Core Commission because they encourage reflection upon the interdependent nature of the world, contribute to global awareness, and require interdisciplinary modes of instruction and integrative learning. All classes in this curriculum are reading-and writing-intensive and thus contribute to academic development and lay the groundwork for success in graduate schools or students' chosen professions. The Core Curriculum represents what is best and distinctive about the University of Bridgeport.

THE UNIVERSITY'S CORE HAS THREE DIMENSIONS:
1. Skills
2. Heritage
3. Seminars

I. THE SKILLS SECTION (6 HOURS)
Skills classes help students learn how to think clearly, write effectively, and communicate accurately and persuasively. These courses, normally taken in the first semester, lay the foundation for all further study. The University of Bridgeport requires two such courses: one in composition, the other in mathematics.

English: English C101
Math: Math 105 or higher.

II. THE HERITAGE SECTION (21 HOURS)
Heritage classes introduce students to the artistic, communicative, cultural, social, historical and scientific achievements of the world. The courses below have been selected for inclusion in the Core Curriculum because they contribute to forming an international perspective about these achievements. The Core Curriculum aims to help students see the world in a distinctive way: as a plural but increasingly interdependent reality. Upper-level courses, are suggested to students who are completing Core requirements as upperclassmen, or who have focused academic interests in a particular area of enquiry. Enrolling in these upper-level courses requires the instructor's permission. Full course descriptions can be found in Undergraduate Courses of Instruction section of the Catalog.

Three Hours of Fine Arts: C101 or one of the following approved electives
• ADSN 117, 118
• MUSC 121, 122, 203, 204, 205
• THA 103

Six Hours of Humanities: Humanities C201 and one of the following courses
• ENGL 180, 197, 207, 208, 209, 210, 212, 213, 215, 216, 223, 233, 252, 305, 325, 330, 332, 352, 357, 362
• HIST 100 (three 1-credit sections must be taken during the same semester), 222, 223, 233, 317, 336
• HUM 300
• PHIL 101, 103, 104, 203, 205, 216
• WREL 204, 205, 207, 208, 216, 221, 301, 321

Six Hours of Natural Science: six hours of C-designated courses (SCI C101, SCI C102, SCI C201), or six hours met by any combination of C-designated courses and/or upper-level lab science courses for which students meet the prerequisites.

Six Hours of Social Science: Social Science C201 and one of the following courses
• HIST 101, 102, 207, 208, 240, 250, 280, 301, 303, 315, 319, 326, 360
• MCOM 290
• PHIL 323, 324
• PS 101, 103, 204, 206, 207, 208, 209, 215, 304, 323, 324
• SOC 102, 204, 231, 310, 315
• SOSC 207
• WREL 102, 103, 305, 317, 348

III. SEMINARS (6 HOURS): FIRST YEAR SEMINAR AND CAPSTONE 390

The thematically focused First Year Seminar, taught from a common syllabus to all freshmen, is taken during the first semester of study. This seminar introduces students to the academic values of the Core Curriculum while inculcating habits of learning that will serve them throughout their undergraduate education and beyond. Through this seminar experience, students establish a foundation upon which the rest of the Core Curriculum stands.

The Capstone Seminars provide an academic context in which the skills and content of the previous thirty hours of the Core Curriculum can be synthesized and integrated. The Capstone is the “crowning achievement” of the Core Curriculum. As such, the seminars are limited to juniors and seniors who have completed at least 75 semester credit hours and all thirty hours in the Skills and Heritage sections of the core. No exceptions will be granted to this policy.

NOTE ON COURSE TRANSFER POLICY:
The Core Commission allows twenty-seven hours of the Core to be transferred from other universities. The Capstone Seminar
The Core Curriculum

and at least one additional C-designated course must be taken at the University of Bridgeport.
Cooperative Education and Internships

Cooperative Education

The University of Bridgeport offers an extensive voluntary cooperative education program, allowing students to combine classroom study with work experience in their chosen profession. Cooperative Education provides a practical application of academic studies plus opportunities to learn material that cannot be taught in the classroom.

Cooperative Education offers the additional bonus of providing paid work experience that can contribute to paying educational expenses and give the student the sense of being self-supporting.

- Theory and practice are more closely related.
- Motivation is increased as studies become meaningful.
- Work experience helps develop maturity and a sense of responsibility.
- Work experience helps to develop skills in human relations.
- Professional contacts may be made that can lead to permanent employment.
- Job opportunities help to test career objectives.
- Work experience gives students a distinct advantage in a very competitive job market.
- Co-Op graduates often start at a higher level job and with higher pay than students without experience.

CO-OP WORK ASSIGNMENTS

Assignments are related as closely as possible to the student course of study and career goals. The large majority of Co-Op jobs are located within 40 miles of the University. Some students locate their jobs near their homes outside of the normal Co-Op placement area, thus enabling them to increase their net earnings from Co-Op salaries.

Most undergraduate Co-Op students work part-time during the academic year and full-time during vacations. Graduate students have the option to work full-time or part-time during the academic year.

STUDENT SALARIES

Students are placed in regular jobs and normally are paid for their services by the cooperating employer. They perform under actual working conditions and are advanced on the basis of merit. Guarantees concerning job placement and pay cannot be offered. However, between the end of the Freshmen year and graduation, the typical Co-Op salary can represent a substantial portion of the total cost of a student’s education.

ACADEMIC CREDITS

Academic credit for Co-Op work experience is authorized by the dean and the faculty of the individual schools having Co-Op programs. Students must register and pay the 1-3 credit Co-Op fee for each work term.

ELIGIBILITY

The Co-Op program is open to all full-time students demonstrating their academic ability.

DOMESTIC UNDERGRADUATE STUDENTS

must complete two full terms at the University with a minimum 2.5 grade point average.

INTERNATIONAL UNDERGRADUATE STUDENTS

must complete one academic year at the University with a minimum 2.5 grade point average, have been in F-1 or J-1 visa status for a minimum of one academic year and have a thorough command of oral and written English.

DOMESTIC GRADUATE STUDENTS

must complete a minimum of four courses in their graduate program with a minimum 3.0 grade point average.

INTERNATIONAL GRADUATE STUDENTS

must complete one academic year in their graduate program with a minimum 3.0 grade point average, have been in F-1 visa status for a minimum of one academic year and have a thorough command of oral and written English.

In addition to the general requirements stated before, Ph.D. students in Computer Science and Engineering are allowed to start their CPT or OPT only after they pass their Oral Examination (excluding CPT summer session).

INTERNATIONAL GRADUATE STUDENTS

must complete one academic year in their graduate program with a minimum 3.0 grade point average, have been in F-1 visa status for a minimum of one academic year and have a thorough command of oral and written English.

STUDENT SALARIES

Many students are able to combine a non-paid Internship position with a paid Co-Op work experience in a related field to earn not only a salary but exposure to more than one employment opportunity.

ACADEMIC CREDITS

Academic credit for Internship is awarded by the dean and faculty of the school offering the Internships. Most Internships earn 3 academic credits per term.

ELIGIBILITY

Students are eligible to participate in Internships according to the course sequence described by their academic program of study.

International students taking paid Internship positions must also have been in F-1 or J-1 visa status for a minimum of one academic year and have a thorough command of oral and written English.

INTERNSHIP ASSIGNMENTS

Arrangements for Internships may be made with the University Internship Director, the student’s faculty advisor, or the Dean of the school.
University Library

University Librarian: Deborah Dulepski
Magnus Wahlstrom Library, Second Floor,
Library Administration
126 Park Avenue, Bridgeport, CT 06604
Telephone: 203-576-4740
Fax: 203-576-4791
Email: ddulepski@bridgeport.edu
Website: http://www.bridgeport.edu/library

PHYSICAL RESOURCES
The Magnus Wahlstrom Library, part of the
University’s Information Services, is cen-
trally located on campus, occupying floor
1-4 of the Magnus Wahlstrom building. The
Library is fully staffed and open seven days
a week with both morning and evening
hours. Students and faculty are offered a
full range of reference and access services
in a comfortable space that facilitates indi-
vidual and collaborative study within a Li-
brary Commons model. Study Rooms may
be reserved at the Information Desk. Com-
puter workstations with Internet access are
available, as well as a wireless support for
those individuals with laptops. Copy ma-
chines and printers are also available in the
Library. Fully equipped “Smart” Classrooms
with media and an electronic whiteboard
are also available. Interlibrary loan services
can be arranged for books, with articles de-
ivered electronically via email.
A full description of facilities, resources and
services may be found at www.bridgeport.
edu/library.

PRINT COLLECTIONS
The University maintains a comprehensive
print, media, & anatomical collection that
reflects the University curriculum. General
and Reference material is housed in open
stacks on the top 3 floors of the Library.
Several special collections of archival and
historical material are available for use by
the University community as well as visiting
scholars.
In addition, The Wahlstrom Health Scienc-
es Collection is located on the 4th floor of
the Library. It houses specialized collected
works that support the Chiropractic, Dental
Hygiene, Naturopathic, Acupuncture and
Physician Assistant programs. The collection
includes books, journals and anatomical
models. Study space with wireless access,
along with two large group study rooms,
is available. Reference, and Evidence Based
Medicine instruction, Reserve and Circula-
tion services are provided to students at the
1st floor service desk.

DIGITAL LIBRARY SERVICES
The Wahlstrom Library extends its tradi-
tional services through its state-of-the-art
digital library. It is fully committed to build-
ing a rich collection of scholarly materials
that are fully accessible anytime, anywhere
through the Internet using a single Univer-
sity sign on. Employing the Eureka! Inte-
grated search platform, students and faculty
can access tens of thousands of electronic
journals, books and reports. The library also
subscribes to more than 50 major databases.
Electronic tutorials are provided on how to
use each of library databases.

INFORMATION LITERACY
INSTRUCTION
The Wahlstrom Library supports the Uni-
versity commitment to producing an infor-
mation literate student body. Librarians are
available at the Reference Desk, as well as
staffing “drop in” sessions for individuals and
study groups. An experienced staff of
Librarians works closely with faculty to de-
velop curriculum components and assess-
ment tools. Our approach reflects a strong
commitment to standards, as well as Evi-
dence Based Practice. All Information Lit-
eracy and Instruction Librarians participate
in delivering instruction in the classroom,
online via Blackboard, Canvas and in labo-
ratory settings. In addition, librarians pro-
vide instructional workshops for faculty and
students in research and technology topics.
Office of Internationalization

Thomas J. Ward
Office of Internationalization
Carlson Hall, Room 235
Bridgeport, CT 06604
203-576-4966

Brandon LaFavor
Oversea Study
Carlson Hall, Room 208
Bridgeport, CT 06604
203-576-2450

Mission
The Office of Internationalization is committed to supporting the International focus of the University through sponsoring activities that promote international awareness. The Office informs the University community of ongoing developments related to the institution’s international mission. The Office also oversees the English Language Institute and the Office for Study Abroad. It supports initiatives such as the annual International Education Week, the International Festival and the work of the University’s Internationalization Committee.

Oversea Study
The Office of Oversea Study assists student placements and maintains ties with international partners. Participants must be students in good standing at the University and they need the approval of their advisor who is expected to review course selection with students to assure that students will still be able to graduate in a timely manner. Students are reminded that they must receive their final 30 credits at the University of Bridgeport in order to graduate with a University of Bridgeport degree. Therefore, they normally plan to study abroad in the Sophomore or Junior year.

Students interested in studying overseas are encouraged to contact Brandon LaFavor at 203-576-2450. The Office, which operates from the College of Public and International Affairs in Carlson Hall, has facilitated overseas study for UB students in a variety of venues including Brazil, Jordan, the United Kingdom, Australia, Korea, Taiwan, China, Japan and the United Arab Emirates. The Office also overseas summer study opportunities in Asia and in Latin America. The Office of Internationalization has also placed students in contact with other approved American and overseas programs for international study.

The Office provides students with written and web-based information on overseas studies. It can also assist UB domestic students in developing applications for overseas scholarship grants and teaching opportunities such as Gilman scholarship, the Boren scholarship, the Fulbright, Rotary International, the Korea Talk and the JET program.

During the November International Education Week, which is sponsored by the US Department of State and the US Department of Education, the Office operates a table in the Marina dining hall where all UB students are provided with an opportunity to learn more about overseas studies opportunities. The Office also works with the Offices of the President and the Provost in welcoming University officials from overseas and in developing collaborative efforts with such institutions.
The Martial Arts Institute

Director: Yongbom Kim
Associate Professor of Martial Arts Studies

Instruction in the Martial Arts began at the University of Bridgeport in 1997. As interest in the Martial Arts grew, a decision was made in 2002 to create a Martial Arts Institute that would promote academic research into the Martial Arts. Since its inception in 2002, the Institute, through its Director, has established ties with the World Tae Kwon Do Federation. In April 2004 the National Collegiate Tae Kwon Do Tournament was conducted at the University of Bridgeport.

Since its creation, the Martial Arts Institute has conducted annual academic trainings for Martial Artists every January and summer tournaments for Fairfield and New Haven county martial artists each summer. The Institute has also hosted a number of Professors of Martial Arts from Asian universities such as Yonsei University and Korea University in Korea.
Support Services

**Tutoring and Learning Center**
The Tutoring and Learning Center (TLC) is a cluster of services designed to provide academic support to University of Bridgeport students. Located on the fifth floor of Wahlstrom Library, the TLC provides tutoring and workshops for UB graduate and undergraduate courses.

**Academic Resource Center (ARC)**
The Academic Resource Center (ARC) is designed to provide support to undergraduate students to help them succeed in college. Located on the fifth floor of Wahlstrom Library, the ARC provides tutoring and supplemental instruction for UB undergraduate courses.

**Online Tutoring**
The Academic Resource Center participates in the online tutoring project managed by the Connecticut Distance Learning Consortium. Through this service, University of Bridgeport students have access to trained tutors from over thirty member institutions in the northeast corridor of the United States who provide over 400 additional tutoring hours per week.

**Graduate and Research Resource Center**
The Graduate and Research Resource Center (GRRC) is designed to provide support to graduate students from all divisions in writing and other graduate level classes. Additionally, workshops are provided to assist students in research and presentation skills.

The Center is designed with the growth potential to provide a variety of services including a university-wide clearinghouse for research opportunities, internship and exchange programs information, and scholarship and fellowship information.

**Student Support Services**
The Student Support Services Program (SSS) is funded by the Federal TRIO Programs and is designed to identify and provide services to a selective group of college students who meet eligibility criteria. All of our services are available at no cost with the intent of assisting students in accomplishing their goal of graduating from UB.

**Services Offered**
Academic Assistance to help students develop a plan to achieve their academic goals and to meet their individual needs.
Career Planning to work with students to recognize career options and to design a strategy for realizing their career goals.
One-on-One and Small Group Tutoring for reading, writing, study skills, mathematics, science, and other subjects.
Group Study Sessions (Supplemental Instruction) for courses that are challenging for many students.
Workshops and Seminars on topics such as note taking, time management, developing good study habits, overcoming test anxiety, and stress management, are just a few.
Financial Aid Guidance to educate students about their financial aid options, the process of applying for financial aid, and their responsibilities.

**Program Requirements**
The student must be committed to do the following:
Meet with the academic counselor and learning specialist at least three times each semester. The first meeting must take place within the first four weeks of the semester.
Attend the orientation/welcome back event at the beginning of each semester.
Attend a minimum of two SSS sponsored events/workshops each semester.
Global Learning Initiatives

Associate Vice President: Hap Aziz
Wahlstrom Library, 5th Floor
Telephone: (203) 576-2433
E-mail: ubonline@bridgeport.edu
Website: www.bridgeport.edu/online

The University of Bridgeport’s Global Learning Initiatives department supports online educational opportunities for students from around the world. With bachelor and graduate programs available entirely online, students have an opportunity to continue their education 24 hours a day, 7 days a week, from the convenience of their home or office. Students can choose from more than 100 online courses ranging from health sciences to business to global development and peace. At the core of the online courses is the individual guidance provided by the instructors and the interactive environment that allows a greater degree of class discussion and participation. Offering classes online since 1997, UB Online continues to provide students with the flexibility and convenience of learning anytime, anywhere, along with the same high quality of instruction that UB offers on the traditional campus.

Global Learning Initiatives provides:

- Faculty training and support to enhance online learning
- New technology to provide online interaction between students and faculty
- Support for the Canvas Learning Management System
- Course development by instructional designers
- Multimedia support and production
- One-on-one student advising to improve learning outcomes and student success
Schools and Professional Programs
School of Arts and Sciences

Dean: Manuyal Im
Charles Dani Hall, Room 148
169 University Avenue
Telephone: (203) 576-4271
Fax: (203) 576-4051
E-mail: artsandsciences@bridgeport.edu

Faculty: Albert, Autuori, Bibis, Buller Connolly, Engelmann, Eves, Geist, Gherasimova, Johnson, Juliusburger, Katsifis, Kraft, Krumrey, Leedom, Lehman, Linn, Maimone, Martignetti, Nawrocki, Nicholas, Oberleitner, Orapall, O'Sullivan, Petrus, Phillips, Rho, Rigia, Price, Ryan, Santiago, Singletary, Weng, Zayan

Degree Programs
Biology (B.A. and B.S.) with concentrations in:
- Environmental Biology
- Marine Biology
- Pre-Health Professional Options
- Counseling (M.S.)
English (B.A., B.S)
- Creative Writing
- Literature
Fashion Merchandising (A.A., B.S.)
General Studies (A.A., A.S.)
General Studies (B.S.) with concentrations in:
- Business Studies
- Science, Engineering and Computer-Related Studies
- Health Sciences
- Humanities
- Natural Sciences and Mathematics
- Social Sciences
Health Sciences (B.S.) with concentrations in:
- Community Health
- Exercise and Fitness
- Nutrition
Human Services (B.S.)
- Literature and Civilization (B.A.)
with concentrations in:
- Creative Writing
- English
- History
- Philosophy
Mathematics (B.A. and B.S.)
Medical Laboratory Science (B.S.)
Music (B.Mus) with concentrations in:
- Music Business
- Music Education
- Music Performance

Professional Studies (B.P.S.)
- Organizational Leadership and Change
- Health Care Administration
- Human Resource Administration
- Psychology (B.S.)

FIRST YEAR STUDIES
Academic Resource Center

Mission Statement
The mission of the School of Arts and Sciences is to provide students with education of high quality in the knowledge, skills and values that will enable them to achieve success in their professions and become meaningful contributors to society. The School is committed to an interdisciplinary approach in its curricula while offering students opportunities for experiential learning, internships, and community service.

Our programs are designed with attention to the institutions we serve. The education we offer features acquisition of fundamental knowledge in a wide range of fields and an application-oriented approach to issues that are progressively more interdisciplinary.

Vision Statement
The vision statement serves as a guide in the development of the school's programs and overall educational initiatives. The School of Arts and Sciences will provide students in its programs with:

- Competence — i.e. knowledge and skills necessary to enable them to enter the work force, or to undertake graduate study, with success.
- Critical Thinking — i.e. techniques of applied logic, categorization, and criticism which result in clear thinking, sound analysis, and balanced judgment.
- Creativity — i.e. qualities of imagination, originality, curiosity, and daring.
- Context — i.e. awareness of the historical, social, intellectual, environmental, and cultural setting appropriate to the field of study.
- Communication — i.e. ability to express themselves lucidly and to present ideas effectively and distinctively, both formally and informally, orally, visually, literately, and musically.

Candor — i.e. honest standards, consistency in implementing them, and fair evaluation of achievement.

Concern — i.e. regular support and individual attention to all students, with additional opportunities for those who excel and remedial strategies for those who need them.

Description
The Arts and Sciences housed in the School include degree programs in Biology, English, Fashion Merchandising, General Studies, Literature and Civilization (with concentrations in History, Philosophy), Health Sciences and Psychology, Mathematics, and Music. In addition, the School is responsible for those courses in composition, humanities, fine arts and natural sciences, mandated by the University's core curriculum.

The School is committed to an interdisciplinary approach that it believes best prepares students for the challenges and opportunities of the twenty-first century, and for graduate school.

The Biology Program is designed to prepare students for further study in graduate or professional schools, or for employment in education, industry, or governmental service. Students may follow a general biology curriculum or elect an option in pre-chiropractic, pre-medicine, pre-dentistry, pre-naturopathy, pre-veterinary, marine biology, or zoology.

The General Studies Program gives adult learners, as well as traditional undergraduates, greater flexibility in completing their studies by offering broad areas of disciplinary concentration in place of more traditional majors. Students use this option to pursue careers in business and social science and as a pre-professional degree.

The First Year Studies Program develops, promotes, and administers programs and services for under prepared freshmen, who are given the opportunity to demonstrate their true ability. Students remain in the program for one to four semesters depending on their level of achievement. They use the record they have compiled to transfer into their major of choice at the University.

The Health Sciences Program prepares students for entry level positions in exercise and fitness, and in nutrition, as well as for advanced study in pharmacy, physician as-
sistant, nursing, and other professional programs in the health sciences. The curriculum in this program includes basic foundation courses in biology, chemistry, mathematics, and physics as well as in required courses in philosophy and psychology.

The Human Services Program combines theoretical coursework with field work experience to prepare students for careers in human service agencies and community organizations. The program requires students to supplement their coursework in the human services and gerontology with courses in psychology, sociology, and related fields.

The Literature and Civilization Program gives students a general foundation in the liberal arts while, at the same time, examining the connections within and between them. Within this major, students may opt for a concentration in Creative Writing, English, History, Philosophy.

The Mathematics Program is designed to prepare the student for graduate work in mathematics and allied areas, industrial employment, secondary school teaching, and careers in quantitative areas of biological and social sciences.

The Medical Laboratory Science program prepares students for careers in a hospital laboratory with opportunities for growth in research or molecular diagnostics. The MLS Program may also serve as a pre-med or pre-physician assistant training program. In addition to the specific medical laboratory science, biology, and chemistry courses required for the program, students will demonstrate competency in foundation courses in biology, chemistry, and mathematics as well as in required courses in philosophy and psychology.

The Music Program offers four distinct four-year programs leading to the Bachelor and Music degree: Music Education, Performance, Jazz Studies, and Music Business. Music students are required to complete music foundation courses and one of the four concentrations. The Music Business concentration reflects the growing complexity of the commercial music scene.

The Psychology Program gives students a knowledge of the general areas of development, personality, social, cognitive, and abnormal psychology, preparing them for employment in psychology and related fields or for further study in graduate programs. The program permits ancillary study in related subject areas in the human services, the humanities, the social sciences, and biology.

The School provides courses in Physics and Chemistry in support of the University's Science and Engineering programs.

**Facilities**

The music programs are housed in the Arnold Bernhard Center which provides classroom performance, and lecture hall space. Individual students have access to spacious studio and practice areas.

The Biology and Mathematics program are located in Dana Hall. Three floors are occupied by Biology, Physics, Chemistry, and Geology laboratories.

**Internships, Co-operative Programs and Professional Opportunities**

The School offers students a variety of options dependent on their major interests. In the Humanities programs there are opportunities for internships with state and local government organizations, newspapers and broadcast media, advertising agencies, and related commercial interests. The University's proximity to New York City, the media, art, and design center of the United States and the site of many museums, foundations and research institutes, offers students an exceptional variety of intellectual, cultural, and professional experiential learning possibilities. Our students are actively participating in summer programs in Biology, and working part-time in many corporate and consulting companies locally and nationally.

**Accreditation**

All degree programs in the School of Arts and Sciences are licensed and accredited by the State of Connecticut Office of Higher Education.

**Admission Criteria and Procedures**

A student is admitted to the majors in Arts and Sciences after an evaluation of the high school transcript, counselor recommendations, and SAT/ACT scores and has demonstrated potential in analytical reasoning, comprehension, verbal expression and intellectual growth.

In addition to the standard University requirements, admission to the majors in Music may require the submission of a portfolio representing the applicant's creative work, or a tape/video-cassette representing performance skills.

Students who perform well in the Biology and Mathematics programs are generally found to have met the following criteria:

A. SAT scores of 530(R) verbal and 560(R) math; or composite ACT score of 22.

B. Grade point average of “B”, (2.5) or better.

C. Rank in the top half of the high school graduating class.

D. Four years of mathematics; two lab sciences and an additional science unit in high school.

At the discretion of the Admissions Committee, students who meet two out of the above standards can be admitted into the major.

**Admissions Criteria and Procedures for the First Year Studies Program**

Students who aspire to one of the majors at the University, but whose academic performance in high school suggests developmental needs, are considered for admission to the Program in First Year Studies based on a review of their high school record, standardized test scores, and supporting documents (special attention is paid to recommendations and the applicant's essay).

For information concerning admission procedures, please refer to the section on University Admissions.

**General Criteria for Degrees from the School of Arts and Sciences**

Degree in English, Literature and Civilization, and General Studies require a minimum of 120 semester hours of acceptable work. De-
pending on the degree and program, thirty to forty-eight semester hours may be devoted to the major, and at least half of these must be completed at the University unless this requirement is waived by the School Dean. The exact number of semester hours required for each major is listed in the section of the catalog entitled “Undergraduate Degree Programs.”

In Music, the Bachelor of Music degree requires a minimum of 126 semester hours. At the end of each semester, music majors must take an examination in their applied area before a jury of the faculty. At the close of the fourth semester, each music major is given a sophomore review. This review is a comprehensive critique of academic and applied work completed to date and determines whether the candidate continues as a music major.

In Biology and Mathematics majors the Bachelor’s degree is awarded to the student who fulfills the following minimum requirements, in addition to those listed in the chapter on Academic Regulations.

1. Participation in such departmental seminars as the faculty prescribes.
2. Earning the total semester hours required for the individual curriculum as listed in the following pages.
3. Earning a “C-” or better in every course in the major and with a cumulative average of 2.0 in the major courses.

Each department designates the courses to be included in the major and decides the procedure necessary to remove each deficiency, including any “D” in a major course. When a course is a prerequisite to another, a “C-” or better in the prerequisite course may also be a requirement. Both B.S. and B.A. degrees are available in Biology and Mathematics.

School of Arts and Sciences

First Year Studies Program

The First Year Studies Program (FYSP) is an academic unit which, utilizing a variety of support services, facilitates the transition of first-year students from high school to university life. Program advisors assist the students in the selection of appropriate courses while preparing them for admission into the major of their choice.

The FYSP team attempts to foster within their students a spirit of intellectual curiosity, personal responsibility, and commitment to academic excellence.

The FYSP is housed in the School of Arts and Sciences but is designed to prepare the under prepared student for majors in any of the Schools at the University of Bridgeport. The Program emphasizes strengthening study skills and awareness of college culture and protocol. Because these factors are essential for successful completion of a college degree, students in the FYSP must adhere to stringent academic and attendance guidelines. Support is provided in the form of intense advising, communication with the professors, and use, in some cases mandatory, of the Academic Resource Center. It is the goal of the First Year Studies Program to prepare its students for acceptance into the desired majors by the time they successfully complete their first thirty credits.
The Ernest C. Trefz School of Business

**Institutional Performance**

Formal and informal student surveys are performed each year to assess students' perception of the academic content, experience, etc. The dean of the School of Business and other key members of the faculty meet twice a year with the Industry Advisory Board to review industry practices, trends, and needs. Employer feedback from internships is also reviewed.

**Advisory Council**

The Business School Advisory Council is composed of distinguished local business leaders. It offers opportunity for exchange of perspectives and knowledge between the University and the Business Community. A variety of ways are employed to achieve this end including periodic formal meetings that expose the work of faculty and students to the Council, on-site visits of faculty and students to member facilities, provision of opportunity for co-op student employment and internship, participation by council members as speakers in appropriate classes, as well as participation by council members in the evaluation of curriculum and teaching methods.

**Graduate Assistantships**

Graduate assistantships are available on a competitive basis for outstanding full time students. Graduate assistants may earn as many as nine semester hours a semester, and their eligibility is reviewed each semester. Assistantships require the recipients to work with faculty in the College for up to 20 hours a week during each semester.

**Co-op and Internship Program**

The Ernest C. Trefz School of Business encourages all eligible students to gain practical experience before completion of their degree. The student can fulfill this requirement with outside business firms, non-profit organizations, government agencies and international organizations.

**Undergraduate Degree Programs**

- Accounting (B.S.)
- Business Administration (A.A., B.S.)
- Fashion Merchandising (A.A., B.S.)
- Finance (B.S.)
- International Business (B.S.)
- Management and Industrial Relations (B.S.)
- Marketing (B.S.)

**Undergraduate Admission Criteria and Procedures**

A student is admitted to the Ernest C. Trefz School of Business through an evaluation of the high school transcript, class rank, and SAT scores. Successful applicants will have demonstrated potential in analytical reasoning, comprehension, written expression and critical thinking.

Past experience has shown that students who perform well in the School of Business have earned a Grade Point Average (GPA) of at least 2.5 in high school, above a 1010 SAT score, ranked in the top half of their class, achieved a “B” or better in Mathematics and English, and received good recommendations from the high school counselor.

Students transferring from undergraduate majors of other colleges are expected to have earned a minimum GPA of 2.5.

**General Curriculum Policies and Requirements**

The University Core Curriculum requires passing the mathematics competency exam or taking Mathematics 105. This competency is a prerequisite for CAIS 101. Students anticipating graduate study are advised to take Calculus as a free elective.

Upper division coursework provides students with a common body of managerial knowledge, multinational business studies, study in a major field, and an internship. For Bachelor of Science students the concentration of professional courses in the last two years builds upon the broad-based analytical tools and liberal arts foundation of the first two years.

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**Mission Statement**

The Ernest C. Trefz School of Business advances the practice of business through the education of students, and the scholarly and professional contributions of the Faculty. Through high quality innovative teaching, the School enhances critical thinking in its students, provides discipline knowledge through theoretical and applied learning and develops skills that are necessary for success in business. Students drawn from local, regional and international communities learn in a supportive environment that facilitates understanding of business in a dynamic global environment.

**Accreditation**

All degree programs in the Ernest C. Trefz School of Business are licensed and accredited by the State of Connecticut Office of Higher Education.

In addition, the School of Business is professionally accredited by the Accreditation Council for Business Schools & Programs (ACBSP) to offer graduate and undergraduate degrees.

**ACBSP accreditation does not include AA degree in Business Administration.**
Graduate Degree Programs

Master of Business Administration (M.B.A.)

The M.B.A. degree is offered for full time or part time study using face-to-face and online delivery formats. Specific course requirements for the degree will provide students with a strong educational background. Students with a recent Bachelor’s degree in a business-related field and a good academic average at an accredited business college may be able to complete the M.B.A. with 30 semester hours of advanced study. Students with a Bachelor’s degree in a non-business field generally require 54 semester hours to complete the M.B.A.

Graduate Admission Criteria and Procedure

The applicant must present an appropriate baccalaureate degree from an accredited institution of higher education. Students with a GPA of 3.0 or greater in any field from an accredited university are accepted into the program. Official transcripts of all previous work must be sent to the Office of Graduate Admissions.

Students who do not meet the academic criteria may be accepted via a combination of undergraduate GPA, university ranking, and program intensity, as well as GMAT score, and work history.

No specific undergraduate curriculum is expected or preferred before entry to M.B.A. study. As a professional program the M.B.A. is designed to build upon undergraduate study in the arts, humanities, science, engineering or other curricula.

New classes are admitted each fall and spring for full time or part time study. Summer course offerings also allow new admissions for part time study. Full time students may begin in summer for any remediation study, to ease their course load during the regular semesters, and in some cases to accelerate their study program.

Applications and supporting credentials for full time students should be submitted at least two months before the desired starting time, and for part time students, at least one month.

All Applicants Should Submit to the Office of Graduate Admissions:

- An application to the MBA Program
- Official transcripts of all previous college coursework
- A personal statement giving the reason the applicant wishes to study in the program
- Two letters of recommendation
- A resume
- Graduate Management Admissions Test (GMAT) scores (if applicable)

Admission inquiries and questions should be addressed to the Admissions Department.
School of Education

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Teacher Preparation Programs
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Intern Program
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Educational Leadership Program
Ethan Margolis
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Professional Educator Development & Advance Studies
Director of Operations and Student Services
Norma Atkinson
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Faculty: Badara, Cole, Cook, Flynn, Kirschmann, Margolis, Mulcahy-Ernt, Ngoh, Noto, Richmond, Rosenberg, Prelli

Mission Statement
The Graduate School of Education (GSE) is dedicated to providing its students with the opportunity to become educated, productive, and morally concerned citizens of their city, country, and the world. To serve these ends, the GSE offers an array of professional programs designed to prepare students for careers and leadership positions in education. The GSE recognizes a specific obligation to feature training and experiences central to preparing candidates to respond effectively to the fundamental needs of the cities of Connecticut and the region.

Consistent with and supportive of the increasing national demand for better schools, the GSE has accredited programs which provide for the training of highly effective classroom teachers, and administrators options for students interested in teaching careers and incentives for successful candidates to enter the teaching profession.

In pursuit of its objectives, the Graduate School of Education considers three requirements to be basic: a broad pedagogical background, intensive study in one particular field of knowledge, and extensive field training. To plan, conduct, and evaluate its program, the GSE draws on many resources of the University.

Through professional training and field experiences, the student gains solid knowledge of educational objectives; of school curricula, organization, and activities; of the nature of the learner and the learning process; and of the evaluation outcomes.

Accreditation
All degree programs in the School of Education are licensed and accredited by the State of Connecticut Office of Higher Education. The certification programs in Education are accredited by the Connecticut State Department of Education. Effective July 1, 2003, each preparation program is evaluated to ensure it meets accreditation requirements outlined in Connecticut regulation, National Council for Accreditation of Teacher Education (NCATE).

Admission Criteria and Procedures
The General Admission policy and procedures for the University of Bridgeport are found in the chapter on Admissions. Policies and procedures for admission to the teacher certification programs are listed in the program descriptions in this catalog.

GRADUATE SCHOOL
The Graduate School of Education offers programs which lead Master of Science Degree in Elementary Education or Secondary Education, Sixth Year Certificate of Advanced Standing (CAS) degrees are offered in various teacher preparation certification areas. A 6th Year CAS degree is offered in teacher preparation and Educational Administra-
School of Education

Admission Requirements
Candidates for admission to the graduate programs of the Graduate School of Education must present the following for review:

GRADUATE SCHOOL OF EDUCATION

TEACHER PREPARATION (Masters Degrees in Elementary Education or Secondary Education)
1. Bachelor's degree from a regionally accredited institution or a recognized international institution.
2. Two letters of recommendation that speak to the candidate's.
3. A GPA of B or higher.
4. Official copies of all undergraduate and graduate academic transcripts.
5. Passage of PRAXIS I or waiver based on SAT, ACT, or GRE.

PROFESSIONAL EDUCATOR DEVELOPMENT PROGRAM (Masters Degrees in Elementary Education or Secondary Education/CAS Degrees in Elementary Education or Secondary Education)
1. Bachelor's degree from a regionally accredited institution or a recognized international institution.
2. Two letters of recommendation that speak to the candidate's.
3. A GPA of B or higher.
4. Official copies of all undergraduate and graduate academic transcripts.
5. Letter of Intent.

REMEDIAL READING AND REMEDIAL LANGUAGE ARTS (Sixth Year Certificate of Advance Studies (CAS) Elementary or Secondary Education)
1. A valid Connecticut teaching certificate (or proof of eligibility);
2. An appropriate regionally accredited Master's degree;
3. At least two letters of recommendation from persons able to testify to your suitability as a prospective teacher and your potential for graduate-level work;
4. An essay demonstrating a command of the English language and setting out the reasons for wanting to enroll in the program and emphasizing experience relevant to teaching;
5. A successful team interview with faculty;
6. Completion of at least 30 school months of successful classroom teaching experience.
7. Connecticut's essential skills testing requirements: passing scores in the PRAXIS I exams in Reading, Writing, and Mathematics or an official essential skills test waiver currently meeting this requirement.


EDUCATIONAL LEADERSHIP (Certificate of Advance Studies (CAS) in Education Leadership)
1. A completed master's degree from a regionally accredited institution.
2. Graduate cumulative grade point average 3.0.
3. Essay
   - In 2-3 pages double spaced, describe an issue or issues you think will impact leadership in the Connecticut schools. It is important that you focus on the issues, their impact on leadership and any personal experience you have had in helping to address them in your current or former position(s).
4. Two recommendation letters
   - Letters need to come from employers or professional associates, and must attest to your activities as a teacher leader and your potential as a school leader. Letters should be on letterhead with a current date and an ink signature.
5. Resume

ED.D. EDUCATIONAL LEADERSHIP DOCTOR OF EDUCATION DEGREE
1. Master’s degree from a regionally accredited institution.
2. Graduate cumulative grade point average 3.0.
3. Official Graduate transcripts from every school attended
4. GRE (General Test) or MAT scores or In place of exam scores, you may submit a one-page bulleted description of your professional and educational leadership activities over the last five years
5. Two recommendation letters
   • Provide one letter from a colleague, and one letter from a supervisor, that attests to your demonstrated leadership, potential for further leadership development and the ability to benefit from doctoral study. Letters should be on letterhead with a current date and an ink signature.
6. Personal Statement
   • In 500 words or more, detail:
     i. your reasons for wanting to undertake doctoral studies
     ii. your most significant personal and professional accomplishments
     iii. the extent to which your personal and professional responsibilities will allow you to devote the necessary time and effort to the program
     iv. a detailed description of your potential research topic
7. Writing Sample
   • Provide a sample of your writing. This may include your Masters’ Thesis, a published or submitted journal article, a scholarly paper, or a document created for your institution.
8. Resume

**Graduate Intern Program in Education**

The University offers an internship in Education. The Internship is an integration of graduate study and field experience in an elementary, or secondary school. Graduate course work is tuition-free. The following options are available to the intern:

1. Internship for those who wish to be State certified as elementary, or high school teachers
2. Internship for those already certified but who want to take advantage of the tuition-free program to pursue a Master’s degree or Sixth Year Certificate of Advanced Studies (CAS)
3. Internship for those who wish to earn a Master’s or a 6th Year Certificate of Advanced Studies (CAS) for work with young people in non-public American schools, schools in another country, or in other educational or training settings.

For more information, please contact the Director of the Intern Program at (203) 576-4219.

**Application Procedures**

The GSE Application forms are available from the Office of Graduate Admissions, Wahlstrom Library, 126 Park Avenue, Bridgeport, CT 06604 or online at http://bridgeport.edu/admissions
School of Engineering

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Mission Statement
The School of Engineering of the University of Bridgeport provides educational opportunities and serves as a knowledge resource in the sciences, engineering and technology. Our clients are students, the companies that hire them, and various other institutions in Bridgeport and the surrounding region, the United States, and all parts of the world.

Our Programs are designed with attention to the institutions we serve. The education we offer features acquisition of fundamental knowledge in a wide range of fields and an application oriented approach to issues that are progressively more interdisciplinary. Graduates of our programs possess broad knowledge, professional training, and learning skills that enable their success in an evolving global economy and allow for the betterment of the communities in which they live.

Undergraduate
The Computer Engineering program prepares graduates for the practice of engineering at the entry level and helps graduates develop the ability to pursue a course of lifelong learning. A secondary aim is to provide a foundation for those interested in and qualified to pursue graduate studies. The program emphasizes a sound broad-based interdisciplinary technical education, with the integration of the practice of engineering design throughout the curriculum. The program in Computer Science prepares students to solve theoretical and applied problems relating to programming and programming applications. Acquiring both skills and fundamental knowledge is stressed in the curriculum. An additional goal is to provide students an excellent foundation for advanced study in graduate programs.

The Electrical Engineering program prepares graduates to understand the basics of classical Electrical Engineering. They will understand the basics of classical Electrical Engineering. They will have the ability to design and analyze electronic circuit diagrams.

Graduate
The graduate offerings of the School of Engineering are intended for those who wish to enhance their expertise with an emphasis on professional applications.

Accordingly, all programs for the Master of Science degree require at least one of the following: comprehensive examination, writing a thesis based on independent research, or completion of an appropriate special project.

Accreditation
All degree programs in the School of Engineering are licensed and accredited by the State of Connecticut Office of Higher Education. The Bachelor of Science degree program in Computer Engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Admission Criteria and Procedures

UNDERGRADUATE ENGINEERING:
Students who perform well in the undergraduate programs are generally found to have met the following criteria:
A. SAT scores of 530(R) verbal and 560(R) math; or composite ACT score of 22.
B. Grade point average of “B”, (2.5) or better.
C. Rank in the top half of the high school graduating class.
D. Four years of mathematics; two lab sciences and an additional science unit in high school.

At the discretion of the Admissions Committee, students who meet two out of the above standards can be admitted into the major.

Graduating Engineering

MASTER OF SCIENCE DEGREES
Candidates for admission to Master of Science Degrees in the School of Engineering must present the following for review:
A. Bachelor of Science degree or its equivalent in Engineering or related applied Sciences from an accredited institution or recognized international institution.
B. Two letters of recommendation.
C. 2.8 recommended grade point average.
D. Demonstrated capacity for independent study and the ability to pursue graduate level work.

E. GRE Exam Required.

**PH.D. DEGREE IN COMPUTER SCIENCE AND ENGINEERING**

Students admitted to the Ph.D. program should have a master degree in computer science or engineering or related discipline with at least a 3.3 GPA. Interested students in the Ph.D. program without an M.S. degree must apply and be admitted into the M.S. program first, and then upon finishing the M.S. degree, they would be eligible to apply for the Ph.D. program.

Students admitted from non-English speaking foreign countries, having a master's degree in computer science and engineering will also be required to have a TOEFL score of at least 550. GRE's are not required for admission into the program, but are recommended.

For information concerning undergraduate and graduate admission procedures, please refer to the section on University Admissions.

**General Criteria for Degrees from the School of Engineering**

Upon recommendation of the faculty of the School of Engineering the University of Bridgeport will award the Bachelor's degree to the student of good character who fulfills the following minimum requirements, in addition to those listed in the chapter on Academic Regulations.

1. Participation in such departmental seminars as the faculty prescribes.
2. Earning the total semester hours required for the individual curriculum as listed in the following pages.
3. Earning a “C-” or better in every course in the major and with a cumulative average of 2.0 in the major courses. Each department designates the courses to be included in the major and decides the procedure necessary to remove each deficiency, including any “D” in a major course. When a course is a prerequisite to another, a “C-” or better in the prerequisite course may also be a requirement.

**Requirements for the Master of Science Degrees**

**ACADEMIC PERFORMANCE**

Students in a degree program who do not maintain a satisfactory record will be separated from the Graduate School. See Graduate Regulations on page 32.

**COURSE LEVELS**

400-499—Open to graduate students and to qualified undergraduates.
500-599—Open to graduate students only.
600-700—Open to Ph.D. students and to qualified MS students.

**TIME LIMITATION AND PROGRAM CONTINUITY**

All requirements for the degree of Master of Science must be completed within six years (twelve consecutive semesters) of the effective start of an approved graduate program of study. Once a program is initiated, the student must maintain continuous enrollment until completion.

Under certain circumstances, a student may be granted permission to interrupt his/her program by petitioning the Dean in writing, stating the underlying circumstances. Program interruption without formal permission will constitute grounds for dismissal from the Graduate School.

**DEGREE PROGRAM REQUIREMENTS**

All graduate students must have on file an approved program of study on the form provided. Programs of study are worked out between the student and his/her advisor to meet both the student's desires and the graduate faculty's philosophy of an integrated program. The program of study must carry the approval of the chair of the department awarding the degree. Changes in the approved program of study must be approved by the student's program advisor and the department Chair.

**ENGINEERING COLLOQUIUM REQUIREMENT**

All Engineering students are required to register for the Engineering Colloquia Series (ENGR 400) once during their course of study. Students are expected to register in their first semester. Students who do not pass the course are required to repeat the course in a subsequent semester.

**GENERAL THESIS REGULATIONS**

MS Students are encouraged to include a thesis investigation in their approved program of study. Accumulation of thesis semester hours and work done during a thesis investigation must be continuous up to the time of its completion. Only those students designated as regular graduate students who have satisfied the following requirements will be permitted to accumulate thesis credits. During the semester prior to that in which the student desires to initiate his/her thesis investigation, he/she must have:

1. Included a thesis investigation in his/her approved program of study;
2. Sought and obtained a member of the graduate faculty who agrees to act as his/her thesis advisor;
3. Submitted a completed thesis investigation form to the department in which the degree is to be awarded;
4. Obtained a Thesis Committee, appointed by the department chair, consisting of three members of the graduate faculty (including the advisor as committee chair).

Students should obtain a copy of “Specifications for Master’s Thesis” from the office of the department chair which describes requirements in detail.

All theses in Engineering must be presented at a faculty-graduate seminar. It is the student’s responsibility to ensure that this requirement is fulfilled, and that written notice of the presentation is distributed to all interested persons at least one week before the event.

Students who are in the process of completing a thesis are required to register for at least two semester hours of thesis in each semester, including summer, that they ac-
tively engage in that activity under faculty
guidance. Semester hours thus accumulated
that total more than the approved program
of-study requirement are not counted to-
ward the degree.

This procedure does not apply to Electrical
Engineering, where students have up to 3 semesters (not counting the summer
semester) to start and finish their project/
thesis. For every semester they are not reg-
istered for any credits, they must take ELEG
596 (seminar) for 1 credit. They do not take
ELEG 596 in the summer semester, unless it
is their last semester.

Upon successful completion of the thesis,
and acceptance by the Thesis Committee,
provided all other requirements in the pro-
gram of study are completed, the student
becomes eligible for the degree.

COMPLETION OF MASTER’S DEGREE
The Master of Science degree will be award-
ed only to those students successfully com-
pleting the following requirements:

1. A minimum of 31 semester hours, 34
   hours for Technology Management with
   a QPR of “B” or better in an approved
   program of study. The number of semes-
ter hours which may be transferred from
   another institution is an individual matter
   that will be reviewed by the major de-
   partment, but is normally no more than 6
   semester hours (8 semester hours in the
   case of laboratory courses).

2. Satisfactory completion of the state licen-
sure requirements as prescribed by the facul-
ty upon review of the student’s program
   and performance, after the student has
   made formal application for a Master’s
diploma.

When the degree is completed with a thesis,
a minimum of eight courses of three semes-
ter hours each are required for the Master of
Science degree in Electrical Engineering or
Mechanical Engineering. For the Master of
Science in Computer Science or Computer
Engineering, nine courses of three semester
hours each plus six semester hours (mini-
num) of thesis are required. For the Master
of Science degree in Technology Manage-
ment, nine courses of three semester hours
each plus six semester hours (minimum) of
thesis are required; for students holding the
Bachelor of Science in Manufacturing Engi-
neering or Industrial Engineering from an
approved program, this requirement may be
reduced to eight courses of three semester
hours each, plus six semester hours (mini-
num) of thesis.

COOPERATIVE EDUCATION PROGRAM
The School of Engineering offers an option-
al cooperative education program. See the
Cooperative Education section of this Cata-
log for further information.

Upon successful completion of the thesis,
and acceptance by the Thesis Committee,
provided all other requirements in the pro-
gram of study are completed, the student
becomes eligible for the degree.

Requirements for the Ph.D.
degree in Computer Science
and Engineering

TIME LIMITATION AND
PROGRAM CONTINUITY
All requirements for the Ph.D. degree must
be completed within seven years (fourteen
consecutive semesters) of the effective start
of an approved graduate program of study.
Once a program is initiated, the student
must maintain continuous enrollment until
completion.

COMPLETION OF PH.D. DEGREE
The Ph.D. degree in Computer Science and
Engineering will be awarded only to those
students successfully completing the follow-
ing requirements:

1. Completion of the formal requirements
   for an MS degree in computer science or
   computer engineering, including a the-
   sis.

2. An additional eight (3-credit hours)
courses, or 24 credit hours, in the disci-
pline, including no more than two inde-
pendent studies.

3. A two-semester teaching practice require-
ment (3 credit hours each), for which
students are to register with no fees. The
students will be expected to teach lower
undergraduate level classes, and/or as-
sist professors as teaching assistants (i.e.,
perform a significant teaching role), thus
giving Ph.D. graduates experience for an
academic teaching career.

4. At least 15 semester hours of dissertation
research, culminating in a dissertation
proposal defense and dissertation de-
fense.

5. Comprehensive examination: written and
oral (proposal defense).

6. Publication of at least two journal papers,
or one journal and two refereed confer-
ence papers, within the course of the
Ph.D. topic research. These publications
are not required to be single authored
by the student and they might be coau-
thored with members of the dissertation
committee.
College of Public and International Affairs

Dean: Thomas J. Ward
Carlson Hall, room 235
303 University Avenue
Telephone: (203) 576-4966
Fax: (203) 576-4967
Email: ward@bridgeport.edu

Faculty: Al-Azdee, Benjamin, Healey, Hess, Katz, Kim, Lay, Mogavero, Riggs, Rubenstein, Setton, Skott, Yu, van der Giessen, Ward, Wei

Degree Programs

CRIMINAL JUSTICE AND HUMAN SECURITY (B.A.)
CONCENTRATIONS
Comparative Justice ................................................. 12 S.H.
Criminology .......................................................... 15 S.H.
Human Security ....................................................... 15 S.H.

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY (B.A.)
CONCENTRATIONS
Asia-Pacific Studies ..................................................... 15 S.H.
Peace and Development Studies ................................. 15 S.H.
Americas Studies ...................................................... 15 S.H.
Middle East Studies .................................................. 15 S.H.

MARTIAL ARTS STUDIES (B.A.)
CONCENTRATIONS
Tae Kwon Do ............................................................. 16 S.H.
Tai Ji .......................................................................... 16 S.H.

MASS COMMUNICATIONS (B.A.)
CONCENTRATIONS
Advertising ............................................................... 15 S.H.
Communication Studies .............................................. 15 S.H.
Fashion Journalism ................................................... 15 S.H.
International Communication ................................... 15 S.H.
Journalism ............................................................... 15 S.H.
Public Relations ......................................................... 15 S.H.
Sports Journalism ...................................................... 15 S.H.

SOCIAL SCIENCES (B.A.)
CONCENTRATIONS
Criminal Justice Program .......................................... 18 S.H.
Pre-Law ................................................................. 15 S.H.
History ................................................................. 12 S.H.
International Studies ................................................. 12 S.H.
Political Science ....................................................... 18 S.H.
Psychology ............................................................. 12 S.H.

RELIGION AND POLITICS (B.A.)
CONCENTRATIONS
East Asian Religion and Society ................................ 12 S.H.
Islamic Religion and Society ..................................... 12 S.H.
Judeo-Christian Thought and Society ......................... 12 S.H.

EAST ASIAN AND PACIFIC RIM STUDIES (M.A.)
CONCENTRATIONS
Conflict analysis and Resolution
Global Communication
Global Management
International Political Economy and Development

GLOBAL MEDIA AND COMMUNICATION STUDIES (M.A.)
CONCENTRATIONS
Global Communication
New Media Communication

GLOBAL DEVELOPMENT AND PEACE (M.A.)
CONCENTRATIONS
Conflict Analysis and Resolution
Global Communication
Global Management
International Political Economy and Development

MINOR
Criminal Justice and Human Security
International Political Economy and Diplomacy
Martial Arts Studies
Mass Communications
Modern Languages
Social Science
Political Science
Religion and Politics

Background and Focus
Founded in 2000 the College of Public and International Affairs of the University of Bridgeport offers social science-based programs aimed at preparing students for careers in international public service, international business, academia, government service, environment and the media. The College offers majors in Mass Communications, International Political Economy & Diplomacy, World Religions, Martial Arts Studies, and the Social Sciences.

Mission Statement
Through the degree program and the minors it offers the College of Public and International Affairs provides skills the needed by professionals in government, business and civil society to respond to the challenges and opportunities of globalization. The College stresses the genesis and evolution of modern democratic institutions while also offering insight into other fundamental forces that have shaped the world's cultures. Recognizing the importance of a broad cultural base, synthetic and analytical skills and a working knowledge of critical world languages, the College of Public and International Affairs encourages study of the cultural underpinnings of the world's major civilizations. It encourages overseas study during the student's undergraduate study.

The program of the College of Public and International Affairs's are designed to provide students with marketable skills that will enable them to render meaningful service in their careers. It encourages the study of conflict prevention and resolution and service learning. The College provides a wide-ranging academic preparation for scholars and practitioners who are interested in playing a role in the fostering of intercultural dialogue and global cooperation in the international political economy. The diverse, international student body of UB, serves as both a “living laboratory” and a “microcosm of the global world.” It provides real life context for this type of learning experience.

Advisory Board
The College of Public and International Affairs Advisory Board consists of national leaders who have had a distinguished career in fields such as diplomacy international business, and in civil society. The Advisory Board normally meets twice each year and reviews the College’s activities, interfaces with the Colleges faculty and students and it provides recommendations and feedback on the College of Public and International Affairs's ongoing program development. Current membership of the Advisory Board includes Ambassador Phillip V. Sanchez, former US Ambassador to Colombia and to Honduras; Jim Nicholas, Executive Director of the Connecticut World Trade Association, Inc. and Executive Partner Global Business Resources USA, LLC; Clement Malin, former Vice President for International Relations Texaco; David Hornby, former Vice President of the Lyons Club of Fairfield and Export Manager of Wallach Surgical Supplies; Eileen Heaphy, Career U.S. Foreign Services
Officer; Robert Sammis, Senior Financial Service Advisor and Noel Brown, Career United Nations official and former North American Director of the United Nations Environmental Program. The Advisory Board also includes College of Public and International Affairs alumni Tamami Kawamura ’05, a graduate student at Yale University, Grace Lee ’05 and Sana Sarr ’04.

**INTERNSHIPS, COOPERATIVE EDUCATION**

All graduate students of College of Public and International Affairs and undergraduates of the Criminal Justice and Human Security program must complete an internship. All undergraduate are strongly encouraged to obtain working experience through either the cooperative education program or the internship program. To participate in either co-op or internship, students must meet the following requirements:

a. be of junior standing
b. have completed at least 18 hours of coursework in the major
c. be a student in good academic standing at the University

**Lifelong Learning**

The College of Public and International Affairs offers colloquia for adult learners and continuing education course for senior and for professionals. It has organized visits to China for adult learners and has done an extended series of colloquia on the Middle East.

**Special Areas of Interest**

The College of Public and International Affairs and UB students and faculty study and conduct programs and research on the United Nations system. The college has sponsored lectures, conferences, and seminars on the United Nations and other international organizations; the impact of regional customs unions; international human rights; and programs on sustainable development. The College provides a forum where students representing their respective nations have organized constructive public symposia on border and ethnic divides in hotspots such as Bosnia, Kosovo, Kashmir, the East and South China Sea, and the Middle East. UB students participate in the Model United Nations at the National Model United Nations where they have won awards for their position papers and delegation performances.

**College of Public and International Affairs and the Study of the United Nations**

The College of Public and International Affairs of the University of Bridgeport encourages research and studies on international organization and the UN in particular. The College especially encourages research in two areas:

1. The growing (and changing) role of non-governmental organizations vis-a-vis the United Nations and
2. The evolving nature of the relations between the United Nations and world powers, particularly the United States.

**Admissions Criteria**

A student is admitted to the majors in the College of Public and International Affairs of the University of Bridgeport after an evaluation of the high school transcript, class standing, counselor recommendations, and SAT scores. The student should demonstrate potential in analytical reasoning, comprehension, verbal expression, and a demonstrated interest in international affairs and/or world culture.

**Accreditation**

The degree programs of the College of Public and International Affairs of the University of Bridgeport are licensed and accredited by the State of Connecticut Office of Higher Education.
Shintaro Akatsu School of Design (SASD)

Director: Richard W. Yelle
Arnold Bernhard Center, room 810
84 Iranistan Avenue
Telephone: (203) 576-4222
Fax: (203) 576-4042
E-mail: ryelle@bridgeport.edu

Faculty: Larned, Matto, Munch, White, Yelle

Degree Programs
Design Management (M.P.S.)
Graphic Design (B.F.A.)
Concentration in New Media
Industrial Design (B.A.)
Interior Design (B.A.)

Mission Statement
In keeping with a 60-year history of excellence, the mission of the Shintaro Akatsu School of Design (SASD) is to offer professional education in the design fields leading to baccalaureate degrees and successful careers in design. SASD develops students’ abilities to identify, analyze, and solve design problems using culturally sensitive and environmentally sustainable methodologies and technologies. SASD is committed to advancing the use of best-practices in all areas of design.

Professional Environment
Each student has a space for in-class assignments with an adjacent computer design studio, a clean room for large-scale mock-ups and a well-equipped model shop and a photography studio. In addition to the full time faculty, practicing professional designers are invited to teach studio courses ensuring that the student receives a practical and current education.

Portfolio Focus
An important semester event is the Open House; professional designers are invited to a portfolio review in a celebration of the student’s semester work. An aggressive summer internship program for the sophomore and junior students is key to their professional success. The senior thesis reinforces this internship experience. With the combination of a professional, robust portfolio and extensive internship experience our graduates are well prepared for an exciting and fulfilling career.

Computer Emphasis
We have a strong Computer Aided Design (CAD) emphasis balanced by traditional skill development. We use powerful programs that include Vellum 3D, form•Z, Photoshop, Illustrator, IronCAD, Alias Studio, Maya, Final Cut Pro, Premiere, Flash, and Solidworks. An example of our cutting-edge use of technology is in the Junior design studio, where students use the computer to directly create prototypes using stereolithography through a local high technology company.

Local Innovation
Connecticut has a spectacular history of innovation, invention, engineering, illustration, and design. Connecticut has the highest patents per capita. Many well-established corporations and a rapidly growing array of new high technology companies are in the immediate area. Bridgeport Machines, Dictaphone, Pitney Bowes, Remington, and Sikorsky Aircraft Corporation are next door and the World Headquarters of General Electric is in the nearby town of Fairfield. Evo, Product Ventures, Group Four Design, and 9th Wave are just a sample of the consulting animation, advertising, and interior design firms a short distance from Bridgeport.

Accreditation
SASD is an accredited member of the National Association of Schools of Art and Design (NASAD).

INdUSTRIAL DESIGN LEARNING OUTCOMES

1. Demonstrate ability to identify, analyze, and solve industrial design problems. Assessment: Portfolio projects appropriately respond to project briefs, and are clear, focused, expressive, and communicative solutions to the stated problems.
2. Demonstrate mastery of design tools, techniques, and concepts in graphic design. Assessment: Projects and portfolios that evidence craftsmanship, adherence to project parameters, and appropriate selection of typefaces, images, composition, and implementation.
3. Demonstrate an understanding of the aesthetics of form development and of the history and current state of design.
4. Demonstrate proficiency in selection and use of relevant technologies in design. Abilities to use available technical and industrial processes to produce a design product, and to design and implement such a process. Assessment: Project and portfolio materials are made with the appropriate technology or software for the final application. Projects are planned to be feasiably reproducible by industrial/commercial means rather than by one-off or by hand.
5. Demonstrate an understanding of the cultural and societal connections linking graphic design trends and processes as well as a knowledge of business practices and of the market place. Assessment: Projects and portfolio solutions that are culturally- and audience-appropriate for the problem as posed by the brief for the project.
6. Demonstrate proficiency in presenting their own work as well as discussing and constructively critiquing the work of others. Assessment: Active participation in class critiques; clear, thoughtful presentation of students’ own projects, ability to give, accept, and incorporate feedback.

IDEAL DESIGN LEARNING OUTCOMES

1. Demonstrate ability to identify, analyze, and solve industrial design problems. Assessment: Portfolio projects appropriately respond to project briefs, and are clear, focused, expressive, and communicative solutions to the stated problems.
2. Demonstrate mastery of design tools, techniques, and concepts in graphic design. Assessment: Projects and portfolios that evidence craftsmanship, adherence to project parameters, and appropriate selection of typefaces, images, composition, and implementation.
3. Demonstrate an understanding of the aesthetics of form development and of the history and current state of design.
Shintaro Akatsu School of Design (SASD)

Assessment: Projects, papers, and presentations for art and design history courses; in studio courses, projects that appropriately reference historical precedents and stylistic movements in industrial design.

4. Demonstrate proficiency in selection and use of relevant technologies in design. Abilities to use available technical and industrial processes to produce a design product, and to design and implement such a process. Assessment: Project and portfolio solutions are made with the appropriate technology or software for the final application. Projects are planned to be feasibly reproducible by industrial/commercial means rather than by one-off or by hand.

5. Demonstrate an understanding of the cultural and societal connections linking industrial design trends and processes as well as a knowledge of business practices and of the market place. Assessment: Projects and portfolio solutions that are culturally- and audience-appropriate for the problem as posed by the brief for the project.

6. Demonstrate proficiency in presenting their own work as well as discussing and constructively critiquing the work of others. Assessment: Active participation in class critiques; clear, thoughtful presentation of students’ own projects, ability to give, accept, and incorporate feedback.

INTERIOR DESIGN LEARNING OUTCOMES

1. Demonstrate ability to identify, analyze, conceptualize and solve interior design problems. Assessment: Studio portfolio projects appropriately respond to project criteria, and have clear, focused, expressive and communicative solutions to the stated problems. Apply learned design principles to solve the problem. Communicate solutions through 2D and 3D drawings, color theory and proper specifications of materials.

2. Demonstrate mastery of design techniques and concepts in interior design. Assessment: Projects within portfolios that show evidence of attention to detail, adherence to project-initial concepts throughout the process, and close attention that the initially presented concept matches the outcome. Projects show appropriate selection and implementation of materials, finishes, furniture, and fabrics.

3. Demonstrate an understanding of aesthetics and scale related to interior space, and of the history and current state of design in the world. Assessment: Projects, papers and presentations for art and history course work. In studio courses, projects that appropriately reference historical precedents and stylistic movements in interior design, bringing forward current thoughts in interior design with reference to the past. Through portfolio projects show working knowledge of scale through appropriate furniture and lighting specifications.

4. Demonstrate proficiency in selection and use of relevant technologies in design and in using available technologies to produce a design presentation. Assessment: Drawings, including floor plans, elevations, sections, rendered perspectives, and models made with the appropriate technology or software for the final presentation.

5. Demonstrate an understanding of the cultural and societal connections linking interior design trends and processes as well as a knowledge of business practices and of the market place. Assessment: Project solutions that are culturally and audience appropriate for the problem as posed by the criteria for the project. Awareness of the current marketplace based on materials and mechanicals specified for studio projects, projects for Business practices course work.

6. Demonstrate proficiency in presenting their own work as well as discussing and constructively critiquing the work of others. Assessment: Presenting ones work with confidence and a working knowledge of the criteria and materials presented, active participant in class critiques; clear, thoughtful and honest ability to give, accept and incorporate feedback.
Division of Health Sciences

Mission Statement

The Division of Health Sciences includes the College of Chiropractic, the College of Naturopathic Medicine, the Acupuncture Institute, the Human Nutrition Institute, the Fones School of Dental Hygiene, and the Physician Assistant Institute. In accordance with the mission of the University, the Division of Health Sciences seeks to become a leader in the development of integrated healthcare, through education, research and clinical practice.

A variety of programs are offered at all levels throughout the Division. Undergraduate studies are currently offered in Dental Hygiene. Graduate, professional studies are offered in Acupuncture, Chiropractic, Naturopathic Medicine, Human Nutrition, Dental Hygiene and Physician Assistant Studies. The Division provides opportunities for students in different programs to interact through courses of common interest and by providing avenues for completion of multiple degrees within the Division.

Clinical services and outreach services provide care for those in the local urban area, through the University of Bridgeport clinics and off-campus clinical sites.

Recognizing the need for alternatives to traditional, on-campus study in the area of health sciences, the Division offers an online Masters program in Human Nutrition and an online Dental Hygiene degree completion program, and a graduate Dental Hygiene program.

UB Clinics

Health Sciences Center
60 Lafayette Street
Telephone: (203) 576-4349
Fax: (203) 576-4776
E-mail: ubclinics@bridgeport.edu
Website: www.ubclinics.org

In the Health Sciences Center, is where UB Clinics are located.

UB Clinics represent the clinical teaching facilities for UB’s College of Naturopathic Medicine, College of Chiropractic, Acupuncture Institute and Fones School of Dental Hygiene. Each of these specialty clinics are open to the public and offer affordable treatment options in these various disciplines at a fraction of the cost of comparable treatments with private practitioners. UB Clinics provide numerous opportunities for patients to experience medical and wellness care in one convenient location.

The University’s Naturopathic Medical Clinic is a complete outpatient medical center serving a widely diverse population where patients are treated by licensed naturopathic physicians assisted by interns.

The Acupuncture Clinic combines traditional Chinese Medicine, encompassing acupuncture, manual therapy, diet counseling, exercise and breathing techniques for such ailments as: allergies, hypertension, acute and chronic pain, migraines, back pain, rheumatoid arthritis, carpal tunnel, stomach problems, gynecological issues, and more.

The Chiropractic Clinic patients will find relief through a drugless, non-surgical approach to healthcare, including spinal adjustments, soft-tissue therapy, physiotherapeutic modalities, exercise, rehabilitation, and nutrition and lifestyle counseling.

The Fones School Dental Hygiene Clinic offers examinations, X-rays, cleanings, fluoride treatments, and sealants, in its new state-of-the-art facility.

The University of Bridgeport Health Sciences Center/UB Clinics also offers on-site radiology and laboratory services. We also have a Dispensary in which we have a verity of over-the-counter nutritional supplements, herbal medicines, homeopathic remedies and other products.
Acupuncture Institute

MS-AC
The development of the Master of Science in Acupuncture degree program integrates the medical concepts of both the East and West. The student will learn classical acupuncture and Traditional Chinese medical theory as well as up-to-date western biomedical sciences. The Master of Science in Acupuncture degree program’s goal is to provide acupuncture and Traditional Chinese medical training consistent with the developing traditions in Asia and the growing modern health care system in the United States.

Having an opportunity to work alone and in conjunction with other health care practitioners in the Health Sciences Center, the students will be able to integrate the care of patients with other health care providers. Thus, the student gains a “real world” advantage before entering private practice.

MS-TCM
The MS-TCM is a 4-year program during which the students are instructed in Chinese Herbol-ogy during three (3) of the four (4) years of training, after a first year of basic sciences, theory and diagnosis classes lay the foundation for understanding the art and science of a full range of TCM modalities. All foundational courses and clinical rotations from the MS-AC program are included in the MS-TCM.

The nearly 3400-hours of training in Traditional Chinese Medicine modalities, including excellent training in acupuncture, moxibus-tion, tui na as well as Chinese herbal studies is designed to produce graduates with exemplary clinical skills. The clinical focus of this program is evident from the very first classes and permeates all the training in the MS-TCM program.

The MS-TCM program is on not only clinical usage of Chinese herbal therapies but also on safety in the clinical setting while framing the clinical use of these herbs in the TCM tradition. The potential for issues associated with integrated care and drug-herb and nutrient-herb interactions are covered in detail within the MS-CH courses.

The nearly 900-hours of training in Chinese herbal studies will produce graduates with exemplary clinical skills. The clinical focus of this program is on not only clinical usage but also on safety in the clinical setting while framing the clinical use of these herbs in the TCM tradition. The potential for issues associated with integrated care and drug-herb and nutrient-herb interactions are covered in detail within the MS-CH courses.

Degrees
Master of Science in Acupuncture (M.S.Ac.)
Master of Science in Traditional Chinese Medicine (M.S.TCM)
Master of Science in Chinese Herbol-ogy (M.S.CH.)

The MS-Acupuncture degree program of the University of Bridgeport Acupuncture Institute is programmatically accredited by the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM), which is the recognized accrediting agency for programs preparing acupuncture and Oriental medicine practitioners. ACAOM is located at 14502 Greenview Drive, Suite 300B, Laurel, MD 20708; phone 301/313-0855; fax 301/313-0912.

The MS-TCM program of the University of Bridgeport has been admitted to Candidacy status by the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) and is in the process of seeking accreditation. ACAOM: 14502 Greenview Drive, Suite 300B, Laurel, MD 20708, Phone: (301) 313-0855.
Acupuncture Institute

Accreditation contact:
ACAOM
14502 Greenview Drive, Suite 300B
Laurel, MD 20708
Phone: (301) 313-0855
Fax: (301) 313-0912
email: info@acaom.org

Educational Mission, Objectives & Goals:

Acupuncture Institute Mission & Educational Objectives

The mission of the University of Bridgeport Acupuncture Institute is to offer a comprehensive education that prepares qualified candidates to become successful licensed acupuncturists. The University of Bridgeport Acupuncture Institute is an integrated unit of the University of Bridgeport. The program seeks to advance the discipline of Traditional Chinese Medicine through educational, clinical and scholarly activities. The program seeks to advance the discipline of oriental medical acupuncture through educational, clinical and scholarly activities. The program educates its students to be productive, caring and responsible citizens and skilled healthcare professionals. By providing an outstanding professional education, the program will produce graduates with a high level of clinical skills who have the commitment and judgment necessary to act in the service of others.

The Educational Objectives of the Acupuncture Institute are to train and educate acupuncture students who prior to graduation:

1. Demonstrate competency in utilizing the four examinations to identify Traditional Chinese Medicine (TCM) diagnoses.
2. Have the ability to formulate and skillfully implement the safe and effective clinical application of Chinese medicine modalities based upon a total assessment of the patient.
3. For MS-CH: to formulate and skillfully implement safe and effective Chinese herbal medicine, and dietary therapies.
4. Adapt diagnosis and treatment strategies as needed for diverse patient populations.
5. Value patients’ dignity and confidentiality.

University of Bridgeport Acupuncture Institute institutional goals are to:

1. Offer a comprehensive graduate-level education that trains future graduates in a broad range of TCM knowledge, competencies and skills so that we achieve our Mission and educational objectives.
2. Administer a professional and affordable treatment clinic that:
   a. Serves the local community; and
   b. Instructs student interns in the diagnosis and treatment of health conditions in a diverse population.
3. Conduct outreach clinics to:
   a. Support the profession of acupuncture through community service; and
   b. Train students in integrative care settings.
4. Preserve and further the understanding of human health and the art of Asian medicine.
5. Produce graduates who can meet state and national licensure requirements.

UBAI Vision Statement

The University of Bridgeport Acupuncture Institute (UBAI) will lead in the movement to create cross-platform approaches to medicine and health between conventional, Western biomedical concepts and Traditional Chinese medicine (TCM) training and care. UBAI will train healthcare leaders who, through evaluation of patient care from a variety of perspectives, including biomedical, pharmacological and Asian perspectives, will create opportunities for working in integrative care settings, as part of a collaborative health care team, and throughout the modern US medical infrastructure.

Tuition and Fees:

(See insert for current year’s Tuition, Fees and Other Expenses)

Deposits

All charges are payable in full by the fourth day of the semester. A nonpayment fee will be assessed. The student receives no reduction in charges for temporary absence from classes or residence hall and no refund if he or she is suspended or dismissed or leaves the University of residence hall for any cause. Students with outstanding balances will not be able to register for the following semester.

The student will not receive grades, a diploma, a certificate, or a transcript of his academic record until all financial obligations to the University have been met.

If an account becomes severely delinquent and the University is forced to submit the account to an outside agency for collection, the costs of same will be added to the student’s balance.

The tuition fee does not include the cost of textbooks and supplies. These must be purchased by the student. The student should inquire about the cost of special materials, equipment and uniforms required for special courses.

The University does not assume responsibility for the loss of personal property of students either on or off campus. It is recommended that students protect themselves against such losses by consulting with their own (or their parents’) insurance agent in regard to coverage provided by existing policies, if any, or by purchasing private property insurance through a private agent.

Curriculum MS-AC

The Master of Science in Acupuncture degree program is three years in length (36 months) and is scheduled on a semester basis. The curriculum of this major consists of seven (7) distinct areas:

1. Acupuncture Practice and Techniques:

The nine (9) acupuncture courses introduce students to the theoretical and practical information of acupuncture therapy. The student becomes proficient in the clinical applications of acupuncture, moxabu-
Acupuncture Institute

3. Western Biomedicine:
   - Cupping, electrical stimulation, and bleeding techniques. The student learns to identify acupuncture points by anatomical location, palpation, and proportional measurement. The classification, function and indications for each acupuncture point are discussed and demonstrated. In addition to the twelve bilateral channels, two midline vessels and six other extra meridians, forbidden and contraindication of points are discussed. In addition, extra points, auricular points and other categories of acupuncture points are demonstrated and treatment techniques based on these extra meridians and points are discussed and practiced.

2. Asian Medicine Theory, Diagnosis and Application:
   - The twelve (12) oriental medicine theory and diagnosis courses are designed to provide the student with an understanding of the scope, philosophy, theory and conceptual framework of oriental medicine and how acupuncture specifically affects the body within the oriental treatment paradigms. Emphasis is placed on Traditional Chinese Medicine (TCM) diagnoses and effective treatment strategies.

3. Western Biomedicine:
   - The twelve (12) western biomedical courses are designed to train the student fully about western medical terms, history taking, physical exam and diagnostic skills. The student learns how to make the appropriate referral and consultation, as well as the clinical relevance of laboratory and diagnostic tests and procedures.

4. Herbal Medicine Survey:
   - The four (4) courses in herbal medicine and dietetics give the student a basic introduction to western and Chinese botanical medicine and TCM treatment philosophies relevant to herbal medicine and clinical diet therapies. Training in botanical medicine is limited in the Acupuncture Institute to three survey courses: Botanical Medicine, Introduction to Chinese Herbal Remedies and Patent Remedies. Information is provided on indications, contraindications and drug-herb interactions. In addition, the two courses in dietetics and nutrition help the student understand the role of nutrition in patients’ health. (Note that the course in western nutrition is listed under Western Biomedicine: ANT 521 Nutrition.)

5. Movement and Respiration Studies:
   - The seven (7) movement and respiration courses are designed to enhance the student’s personal and energetic development. The student will be exposed to a wide variety of Asian movement practices that can be used to maintain their own and their patients’ health care needs. In addition to the movement studies, two courses in soft tissue treatment techniques are offered.

6. Counseling, communications and practice management:
   - The two (2) specific courses in this area enhance the students’ clinical skills, both in terms of diagnosing addressing patients’ psychological health and in the area of best business practices. In addition, the two second year seminars, cross referenced in the “TCM Theory, Diagnosis and Application” (ATD) section help students learn the fundamental skills needed for private practice, ethical and legal considerations in health care and special considerations for practice in integrated care settings.

7. Clinical Services:
   - The five (5) clinical services courses are designed to allow the student to develop clinical, interpersonal communication and decision-making skills. In addition, students learn professional conduct, efficiency and confidence in dealing with patients on a regular basis. From inception through the end of clinical training, the student has the opportunity to observe and work with advanced TCM practitioners as well as other health care professionals. This allows the student to understand how and when to make appropriate referrals. Clinical service rotations are available in the UBAI on-campus clinic as well as in community and hospital outreach clinical sites. By the end of clinical training, each student will have seen a minimum of 380 patient visits and will have completed 830 hours of clinical training.

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**ACUPUNCTURE CURRICULUM**

**SEMESTER ONE**

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>COURSE</th>
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**SEMESTER TWO:**

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- **SEMESTER THREE:** 14.5 3.5 351 17
- **SEMESTER FOUR:** 13 7.5 393 18
- **SUMMER SESSION:** 1 12 317 11
Acupuncture Institute

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**NUMBER** | **COURSE** | **LECT** | **LAB** | **SEM** | **CR**
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AMR 726 Tuina 3 | 1 | 2 | 54 | 2 |
ATD 717 Adv. Pulse/Tongue Dx | 1 | 0 | 18 | 1 |
ACS 724 Public Health | 2 | 0 | 36 | 2 |
APP 721 Practice Management | 2 | 0 | 36 | 2 |
ACS 723 Clinical Education 3 | 0 | 10 | 220 | 8 |
AHM 713 Patient Remedies | 2 | 0 | 36 | 2 |
APT 718 Pediatric Acupuncture | 1 | 0 | 18 | 1 |

**Total:** 8 | 12 | 404 | 17 

**TOTAL All Semesters:** 76.5 | 58 | 2,645 | 118

**Total:** 118 credits.

830 Clinical hours/26 credits; 1815 didactic hours/92 credits.

**CONTACT HOUR BY AREA:**

**ASIAN MEDICINE THEORY, DIAGNOSIS AND APPLICATION**

TCM History & Philosophy .............................................. 18
TCM Medical Theory ..................................................... 36
TCM Diagnosis 1 .......................................................... 36
TCM Diagnosis II ......................................................... 36
Seminar 1 ......................................................................... 18
Seminar 2 ......................................................................... 18
Seminar 3 ......................................................................... 18
Differential Dx and Pathomechanisms...36
TCM Internal Medicine ................................................... 36
Case Study 1 ................................................................. 18
Case Study Organization & Analysis ................................ 18
Acup. Gynecology ......................................................... 18
Advanced Pulse & Tongue Diagnosis ................................ 18

**ACUPUNCTURE PRACTICE AND TECHNIQUES**

Point Location 1 ......................................................... 45
Point Location 2 .......................................................... 45
Meridian Theory ............................................................ 36
Acupuncture Techniques 1 ............................................ 72
Acupuncture Techniques 2 ............................................ 72
Auricular Acupuncture ..................................................... 18
TCM Safe Practices ......................................................... 54
Japanese Acupuncture Techniques ................. 18
Pediatric Acupuncture Techniques .................. 18

**ACUPUNCTURE RELATED STUDIES**

Taijiquan 1 ................................................................. 27
Taijiquan 2 ................................................................. 27
Qi Gong 1 ................................................................. 27
Qi Gong 2 ................................................................. 27
Tuina 1 ........................................................................... 54
Tuina 2 ........................................................................... 54
Tuina 3 ........................................................................... 54

**TOTAL PROGRAM** .................................................. 2,648

Total: 118 credits. Note that each preceptorship credit corresponds with 37 clock hours; each clinic credit corresponds with 28 clock hours.

830 clinical training hours/1818 didactic training hours. Of the didactic training, 747 are in the basic sciences, 1071 in Traditional Chinese Medicine

**COUNSELING, COMMUNICATIONS, ETHICS, PRACTICE MGT** ........................................... 108

Evidence Informed Practices ........................................... 18
Medical Ethics ............................................................... 18
Psychological Assessment ............................................. 36
Practice Management .................................................... 36

**CLINICAL EDUCATION** .................................................. 830

Preceptorship 1 .......................................................... 75
Preceptorship 2 .......................................................... 75
Clinical Education 1 ..................................................... 245
Clinical Education 2 ..................................................... 215
Clinical Education 3 ..................................................... 220

**TOTAL PROGRAM** .................................................. 2,648

TCM History ................. 18
TCM Medical Theory ............. 36
TCM Diagnosis 1 ................. 36
TCM Diagnosis II ................. 36
Seminar 1 ............................ 18
Seminar 2 ............................ 18
Seminar 3 ............................ 18
Differential Dx and Pathomechanisms...36
TCM Internal Medicine .......... 36
Case Study 1 .......................... 18
Case Study Organization & Analysis ............. 18
Acup. Gynecology .................... 18
Advanced Pulse & Tongue Diagnosis ........ 18

**ACUPUNCTURE PRACTICE AND TECHNIQUES** .................................................. 378

Point Location 1 ......................................................... 45
Point Location 2 .......................................................... 45
Meridian Theory ............................................................ 36
Acupuncture Techniques 1 ............................................ 72
Acupuncture Techniques 2 ............................................ 72
Auricular Acupuncture ..................................................... 18
TCM Safe Practices ......................................................... 54
Japanese Acupuncture Techniques ................. 18
Pediatric Acupuncture Techniques .................. 18

**ACUPUNCTURE RELATED STUDIES** .................................................. 306

Taijiquan 1 ................................................................. 27
Taijiquan 2 ................................................................. 27
Qi Gong 1 ................................................................. 27
Qi Gong 2 ................................................................. 27
Tuina 1 ........................................................................... 54
Tuina 2 ........................................................................... 54
Tuina 3 ........................................................................... 54

**TOTAL OM theory, diagnosis, treatment and acupuncture related studies:** 1017

**HERBAL MEDICINE SURVEY** ................................................. 90

Botanical Medicine ....................................................... 36
Intro to Chinese Herbal Remedies .............................. 18
Patient Remedies .......................................................... 36

**WESTERN BASIC & BIOMEDICAL SCIENCES** .................................................. 612

Anatomy 1 ................................................................. 72
Anatomy 2 ................................................................. 72
Physiology 1 .............................................................. 36
Physiology 2 .............................................................. 36
Pathology 1 ............................................................... 36
Pathology 2 ............................................................... 36
Clinical Diagnosis 1 ..................................................... 90
Clinical Diagnosis 2 ..................................................... 90
Lab Diagnosis .............................................................. 36
Public Health ............................................................... 36
Pharmacology .............................................................. 18
Western Nutrition .......................................................... 36

**COUNSELING, COMMUNICATIONS, ETHICS, PRACTICE MGT** ........................................... 108

Evidence Informed Practices ........................................... 18
Medical Ethics ............................................................... 18
Psychological Assessment ............................................. 36
Practice Management .................................................... 36

**CLINICAL EDUCATION** .................................................. 830

Preceptorship 1 .......................................................... 75
Preceptorship 2 .......................................................... 75
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Clinical Education 2 ..................................................... 215
Clinical Education 3 ..................................................... 220

**TOTAL PROGRAM** .................................................. 2,648

Total: 118 credits. Note that each preceptorship credit corresponds with 37 clock hours; each clinic credit corresponds with 28 clock hours.

830 clinical training hours/1818 didactic training hours. Of the didactic training, 747 are in the basic sciences, 1071 in Traditional Chinese Medicine

**Curriculum – MS-TCM**

The Master of Science in Traditional Chinese Medicine degree program is four years in length (45 months) and is scheduled on a semester basis. The curriculum of this major consists of eight (8) distinct areas:

1. **Acupuncture Practice and Techniques (APT):**

   The nine (9) acupuncture courses introduce students to the theoretical and pragmatic information of acupuncture therapy. The student becomes proficient in the clinical applications of acupuncture, moxibustion, cupping, electrical stimulation, and bleeding techniques. The student learns to identify acupuncture points by anatomical location, palpation, and proportional measurement. The classification, function and indications for each acupuncture point are discussed and demonstrated. In addition to the twelve bilateral channels, two midline vessels and six other extra meridians, forbidden and contraindication of points are discussed. In addition, extra points, auricular points and other categories of acupuncture points are demonstrated and treatment techniques based on these extra meridians and points are discussed and practiced.

2. **Asian Medicine Theory, Diagnosis and Application (ATD):**

   The twelve (12) TCM medicine theory and diagnosis courses are designed to provide the student with an understanding of the scope, philosophy, theory and conceptual framework of TCM medicine and how acupuncture specifically affects the body within the Traditional Chinese Medicine treatment paradigms. Emphasis is placed on Traditional Chinese Medicine (TCM) diagnoses and effective treatment strategies.

3. **Western Biomedical (AWB):**

   The twelve (12) western biomedical courses are designed to train the student fully about western medical terms, history taking, physical exam and diagnostic skills. The student learns how to make the appropriate referral and consultation, as well as the clinical relevance of laboratory and diagnostic tests and procedures.

4. **Herbal Medicine Survey (AHM):**

   The five (5) courses in herbal medicine and dietetics give the student a basic introduction to Chinese pharmacy and dispensary practices, common OTC North American botanicals, the ethical consideration of utilizing sparse resources, and TCM clinical diet therapies. Information in the western botanical and pharmacy classes provides clear information regarding indications, contraindications and drug-herb interactions. The ethical and ecological impacts of TCM materia medica on the health of the individual and the world are explored.
In addition, the two courses in dietetics and nutrition help the student understand the role of nutrition in patients’ health. (Note that the course in western nutrition is listed under Western Biomedicine: ANT 521 Nutrition.)

5. Asian/Chinese Herbology (ACH):
The ten (10) courses in Chinese Herbology offer the student a thorough understanding of Chinese Materia Medica, Classical and Patent formulas and modifications, and the clinical application of Chinese herbs and formulae. The student becomes proficient in the theories pertinent to Chinese Herbal Medicine and the clinical applications of Chinese materia medica for a wide variety of clinical situations and patient populations. At the completion of the 10 course survey, students will have learned over 300 individual herbs and over 150 different classical and patent formulae.

6. Movement and Respiration Studies:
The seven (7) movement and respiration courses are designed to enhance the student’s personal and energetic development. The student will be exposed to a wide variety of Asian movement practices that can be used to maintain their own and their patients’ health care needs. In addition to the movement studies, three courses in soft tissue treatment techniques are offered.

7. Counseling, communications and practice management:
The two (2) specific courses in this area enhance the students’ clinical skills, both in terms of diagnosing addressing patients’ psychological health and in the area of best business practices. In addition, the courses of AWB 621 Medical Ethics, ACS 511 Evidence informed Clinical Practices, and ATD 618 Seminar 3 (cross listed in the ATD section) help students learn the fundamental skills needed for private practice, ethical and legal considerations in health care and special considerations for practice in integrated care settings.

8. Clinical Services:
The five (5) acupuncture clinical services courses and four (4) Chinese Herbology clinical services (for a total of nine – 9 – clinical experience courses) are designed to allow the student to develop clinical, interpersonal communication and decision-making skills. In addition, students learn professional conduct, efficiency and confidence in dealing with patients on a regular basis. From inception through the end of clinical training, the student has the opportunity to observe and work with advanced TCM practitioners as well as other health care professionals. This allows the student to understand how and when to make appropriate referrals. Clinical service rotations are available in the UBAM on-campus clinic as well as in community and hospital outreach clinical sites. By the end of clinical training, each student will have seen a minimum of 575 patient visits and will have completed 1190 hours of clinical training (830 hours in the acupuncture/general clinical care; 360 in the herbology clinic).

**CURRICULUM – MS-Traditional Chinese Medicine**

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**SEMMESTER 5**

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**SEMMESTER 6**

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**SUMMER SESSION:**

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ASSOCIATE DEGREE IN CHINESE HERB MEDICINE

The Master of Science in Chinese Herbology degree program is two years in length (22 months) and is scheduled on a semester basis. The curriculum of this major consists of four (4) distinct areas:

1. **HERBAL MEDICINE SURVEY:**
   - Botanical Medicine ....................... 36
   - TCM Diets .................................... 36
   - Dispensary Management .................. 18
   - Pharmacognosy & Pharmacology of Chinese Herbs .................. 18
   - Ethical and ecological considerations of Chinese materia medica .................. 18

   **ASIAN/CHINESE HERBOLOGY:** ............. 360
   - Chinese Herb Formulas for Pain .......... 36
   - Chinese Herb Formulas for Common Ailments .................. 36
   - Chinese Herbal Theories & Triple burner theories .................. 27
   - Chinese Herbs for Exogenous disease patterns .................. 45
   - Chinese Materia Medica .................. 36
   - Chinese Formulas .................. 36
   - Clinical Application of Herbs 1 .......... 36
   - Clinical Application of Herbs 2 .......... 36
   - Chinese Formulas Modifications 1 .......... 36
   - Chinese Formulas Modifications 2 .......... 36

   **TOTAL:** Herbal Medicine/Dietetics and related didactic studies .......... 486

2. **WESTERN BASIC & BIOMEDICAL SCIENCES:** ............. 612
   - Anatomy 1 .................................. 72
   - Anatomy 2 .................................. 72
   - Physiology 1 ................................ 36
   - Physiology 2 ................................ 36
   - Pathology 1 ................................ 36
   - Pathology 2 ................................ 54
   - Clinical Diagnosis 1 ....................... 90
   - Clinical Diagnosis 2 ....................... 90
   - Lab Diagnosis ................................ 36
   - Public Health ................................ 36
   - Pharmacology ................................ 18
   - Western Nutrition .................. 36

   **COUNSELING, COMMUNICATIONS, ETHICS, PRACTICE MGT:** ............. 121
   - Medical Ethics ................................ 18
   - Psychological Assessment .................. 36
   - Practice Management .................. 36
   - Evidence-Informed Practices .................. 18

3. **CLINICAL EDUCATION:** ............. 1190
   - Preceptorship 1 .................. 75
   - Preceptorship 2 .................. 75
   - Clinical Education 1 .................. 245
   - Clinical Education 2 .................. 215
   - Clinical Education 3 .................. 220

   **TOTAL PROGRAM:** .................. 3381

Total: 149 credits/3777 hours (1190 clinical hours/2191 didactic hours)

**MS-CH Curriculum**

The Master of Science in Chinese Herbology degree program is two years in length (22 months) and is scheduled on a semester basis. The curriculum of this major consists of four (4) distinct areas:

1. **HERBAL MEDICINE SURVEY:**
   - Botanical Medicine ....................... 36
   - TCM Diets .................................... 36
   - Dispensary Management .................. 18
   - Pharmacognosy & Pharmacology of Chinese Herbs .................. 18
   - Ethical and ecological considerations of Chinese materia medica .................. 18

   **ASIAN/CHINESE HERBOLOGY:** ............. 360
   - Chinese Herb Formulas for Pain .......... 36
   - Chinese Herb Formulas for Common Ailments .................. 36
   - Chinese Herbal Theories & Triple burner theories .................. 27
   - Chinese Herbs for Exogenous disease patterns .................. 45
   - Chinese Materia Medica .................. 36
   - Chinese Formulas .................. 36
   - Clinical Application of Herbs 1 .......... 36
   - Clinical Application of Herbs 2 .......... 36
   - Chinese Formulas Modifications 1 .......... 36
   - Chinese Formulas Modifications 2 .......... 36

   **TOTAL:** Herbal Medicine/Dietetics and related didactic studies .......... 486

2. **WESTERN BASIC & BIOMEDICAL SCIENCES:** ............. 612
   - Anatomy 1 .................................. 72
   - Anatomy 2 .................................. 72
   - Physiology 1 ................................ 36
   - Physiology 2 ................................ 36
   - Pathology 1 ................................ 36
   - Pathology 2 ................................ 54
   - Clinical Diagnosis 1 ....................... 90
   - Clinical Diagnosis 2 ....................... 90
   - Lab Diagnosis ................................ 36
   - Public Health ................................ 36
   - Pharmacology ................................ 18
   - Western Nutrition .................. 36

   **COUNSELING, COMMUNICATIONS, ETHICS, PRACTICE MGT:** ............. 121
   - Medical Ethics ................................ 18
   - Psychological Assessment .................. 36
   - Practice Management .................. 36
   - Evidence-Informed Practices .................. 18

3. **CLINICAL EDUCATION:** ............. 1190
   - Preceptorship 1 .................. 75
   - Preceptorship 2 .................. 75
   - Clinical Education 1 .................. 245
   - Clinical Education 2 .................. 215
   - Clinical Education 3 .................. 220

   **TOTAL PROGRAM:** .................. 3381

Total: 149 credits/3777 hours (1190 clinical hours/2191 didactic hours)
4. CLINICAL EDUCATION:
The four (4) Chinese Herbolology clinical services are designed to allow the student to develop clinical, interpersonal communication and decision-making skills. From inception through the end of clinical training, the student has the opportunity to observe and work with advanced TCM practitioners. Clinical service rotations are available in the UBAI on-campus clinic as well as in community outreach clinical sites. By the end of clinical training, each student will have seen a minimum of 200 patient visits and will have completed 360 hours in the herbology clinic).

CURRICULUM – MS-Chinese Herbolology

SEMESTER 1

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TOTAL PROGRAM ................. 882

ELECTIVES:

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CONTACT HOUR BY AREA:

HERBAL MEDICINE SURVEY ..................... 90
- TCM Dietetics .................................. 36
- Dispensary Management .................... 18
- Pharmacognosy/Pharmacology of Chinese Herbs ........................................ 18
- Ethical and ecological considerations of Chinese materia medica .................... 18

ASIAN/CHINESE HERBOLOGY: ............... 360
- Chinese Herb Formulae for Channel Obstructions ........................................ 36
- Chinese Herb Formulae for Common Ailments .............................................. 36
- Chinese Herbal Theories & Triple burner theories ....................................... 27
- Chinese Herbs for Exogenous disease patterns .............................................. 45
- Clinical Application of Herbs 1 ................................................................. 36
- Chinese Formulae 1 ................................................................. 36
- Clinical Application of Herbs 2 ................................................................. 36
- Clinical Application of Herbs 3 ................................................................. 36
- Chinese Formulae 2 ................................................................. 36
- Chinese Formulae 3 ................................................................. 36

RELATED AREAS: .............................. 72
- Evidence Informed Practices ................................................................. 18
- TCM Diagnosis 2 ................................................................. 36
- Medical Ethics ................................................................. 18

CLINICAL EDUCATION: ................... 360
- Chinese Herbal Clinic 1 ................................................................. 130
- Chinese Herbal Clinic 2 ................................................................. 65
- Chinese Herbal Clinic 2B ................................................................. 65
- Chinese Herbal Clinic 3 ................................................................. 100

TOTAL PROGRAM ......................... 882

GRADE QUALITY POINTS

A 4.0
B+ 3.5
B 3.0
C+ 2.5
C 2.0
D 1.0
F 0.0

The cumulative quality point ratio (QPR) is determined by dividing the number of semester hours into the number of points earned. Transfer credits are not included in this computation.

Administrative Grades

In addition to the academic grades submitted by faculty, the following Administrative Grades are also utilized.

I: The grade of Incomplete “I” is used by the faculty to indicate that a student has not completed all course requirements. A student will have one week from the first day of the next term to meet with the faculty and complete all course requirements unless other arrangements are made with either

ACR:  Clinical Services
ACH:  Chinese Herbal Therapies
ACC:  Chinese Herbal Clinic

The course numbering for the system is as follows:

500 level – courses offered in year one
600 level – courses offered in year two
700 level – courses offered in year three or four

The second digit identifies the semester the course is offered in that academic year. The third digit indicates the area.

E.g.: APT 524

APT: Acupuncture Practice and Techniques

5 – year one
2 – second semester
4 – fourth course in the area sequence

Grades earned by students are submitted to the Registrar utilizing the following designations. Grades earned are on a four (4) point scale with a grade of “A” or 4 quality points being the highest grade attained. Grades with quality points are:

GRADE QUALITY POINTS

A 4.0
B+ 3.5
B 3.0
C+ 2.5
C 2.0
D 1.0
F 0.0

The cumulative quality point ratio (QPR) is determined by dividing the number of semester hours into the number of points earned. Transfer credits are not included in this computation.

Administrative Grades

In addition to the academic grades submitted by faculty, the following Administrative Grades are also utilized.

I: The grade of Incomplete “I” is used by the faculty to indicate that a student has not completed all course requirements. A student will have one week from the first day of the next term to meet with the faculty and complete all course requirements unless other arrangements are made with either
Acupuncture Institute

the faculty member or the program Director prior to the end of the term in which the course was taken. Upon completion of the course requirements the faculty will submit the earned grade. Failure by the student to meet with the faculty and complete the requirements in one week from the first day of the next term will result in a grade of “I” being converted to a grade of “F”.

Any student with a grade of “F” or “W” will be required to register for and re-take that course in its entirety when the course is regularly scheduled. Any student with a grade of “F” or “W” will not be able to register for courses for which that course is a prerequisite.

R: Students may repeat a course at any grade level below an “A”. The first repeat will replace the first-time grade for the computation of the QPR.

TCR: This indicates transfer credit granted for equivalent work completed at another accredited institution.

W: Withdrawal grades are assigned on the following policy statements:

1. If the student officially withdraws from a course during the official change-of-registration period, that course does not appear on the student’s transcript.

2. If a student officially withdraws from a course after the end of the change-of-registration period, but before the end of the official withdrawal period, a grade of “W” is assigned and that course remains on the student’s transcript. Courses with a grade of “W” do not count toward the QPR and do not count towards “hours attempted.”

3. The names of students who have officially withdrawn from a course and receive the grade of “W” are so listed on the class roster for the balance of the semester.

4. Any exceptions to the above, including late withdrawals, must be approved by the Director and the Provost before they become official and are recorded. Poor academic performance does not constitute a valid reason for late withdrawal.

**Academic Policies**

**ATTENDANCE REQUIREMENTS:**
Each student is expected to attend all lectures, laboratories and other activities associated with the total completion of a given course.

A student who is absent from class in excess of ten percent of the total class hours may have his or her grade reduced for lack of participation as outlined in the course syllabus. A student absent in excess of twenty percent of the total class hours will receive a grade of “F.”

**Requirements for Graduation – MS-AC**
In order to be eligible for graduation from the Acupuncture Institute program, candidates must meet the following criteria:

1. Have successfully completed a minimum of 34 months of resident study in an accredited institution. The last 2 semesters (34 credits) must have been in residence at the University of Bridgeport Master of Science in Traditional Chinese Medicine degree program.

2. Have successfully completed all requirements of the educational program and have achieved a 2.75 cumulative grade point average.

3. Have been recommended for graduation by the faculty and the administration.

4. Have satisfactorily met all financial obligations to the Acupuncture Institute degree program, the Office of Financial Aid, commencement exercises and other University of Bridgeport offices.

5. Have passed the Clinical Entrance Exam with a score of no less than 75%, the Clinical Exit Exam and all practical clinical examinations with a grade of 70% or better.

**Graduation requirements MS-TCM:**

1. Have successfully completed a minimum of 46 months of resident study in an accredited institution. The last 2 semesters (34 credits) must have been in residence at the University of Bridgeport Master of Science in Traditional Chinese Medicine degree program.

2. Complete all required coursework with a grade of “C” or better

3. Complete all clinical hours

4. Complete all clinical competencies

5. Successfully pass clinical exams, including the clinical entrance exam (pass 75%), all modules of the clinical exit exam (6 modules, 70% to pass for each section), clinical practical points exam, clinical practical needling exam, clinical practical formulations exam

6. Complete an exit interview

7. Recommendation from the clinic director

8. Recommendation from the program director

9. No student will graduate from the program who has not resolved all financial obligations with the University of Bridgeport

**Graduation requirements MS-CH:**

1. Complete all required coursework with a grade of “C” or better

2. Complete all clinical hours

3. Complete all clinical competencies

4. Successfully pass clinical exams, including the clinical entrance exam (pass 75%), all modules of the clinical exit exam (3 modules, 70% to pass for each section), pass the clinical practical formulations exam

5. Complete an exit interview

6. Recommendation from the program director

7. No student will graduate from the program who has not resolved all financial obligations with the University of Bridgeport

**GOOD ACADEMIC STANDING**

Good academic standing is achieved when a student is maintaining good grades, has met all financial responsibilities to the Acupuncture Institute degree program, and is not guilty of any breach of standards governing ethical and clinical conduct.

**ACADEMIC PROBATION**

Academic probation occurs when the student’s cumulative grade point average falls below the
required grade point average of 2.50 or if a student receives one grade of "F" or two or more grades of "D" during a single semester. A student who is on academic probation is not in good academic standing and is not eligible to carry a full academic course load.

ACADEMIC REMEDIATION
A student who is on Academic Probation will be placed in a program of Academic Remedia-

tion and will be required to meet with the Director of the Institute. Academic Remedia-

tion requires a student to carry a reduced academic load. Students will be permitted to

convert grades of "D" or "F" only by retaking the course the next time it is offered by the

Acupuncture Institute.

Successful completion of a program of academic remediation requires a student to pass
each repeated course with a "C" or better and have earned a cumulative GPA (CGPA) of 2.75
or better.

A student who has not earned a CGPA of 2.75 or better upon one semester of remediation
but has shown substantial improvement in his or her course work will be allowed one more
semester of remediation in order to achieve the CGPA of 2.75. A student in a program of
academic remediation may ask the Director for a written definition of a minimum CGPA, or
range of CGPA, which would be deemed to be substantial improvement, and for a written
calculation of the semester of remediation GPA which would be necessary to achieve in order
to bring the student's CGPA into the range of substantial improvement. In such event the

student shall countersign the written statement and deliver a copy of the signed document to
the Director.

A student may not graduate with a grade of "D" on their transcript. Grades of "D" may
not remain on the student's transcript for more than one year and must be remediated by
repeating the course and receiving a grade of "C" or better. This is not a limitation for the

instructor, but rather a requirement to pass each course so that students have the appro-
riate level of proficiency to pass the NCCMT Board Exams and become licensed acupunc-
turists. Students may remediate a grade only by retaking the course before graduation. If
the student does not pass the course with a "C" or better, the student will be on Academic
Probation and will be required to speak with the Director of the Acupuncture Institute be-
fore registering for any new classes.

ACADEMIC DISMISSAL
A student who after one semester of remediation does not show substantial improvement in
his or her academic performance or after two semesters of academic remediation does not
achieve a CGPA of 2.75 will be academically dismissed from the acupuncture program.

Academic dismissal may also occur if a student's CGPA falls below 2.50, or if the student
receives one "F" or two grades of "D" in one semester on a second occasion. Upon comple-
tion of the first semester, any student not achieving at least a 2.50 GPA will be academi-
cally dismissed from the program.

DISMISSAL FROM THE
ACUPUNCTURE INSTITUTE
Academic inadequacies are not the only rea-
son for dismissal from the Master of Science in
Acupuncture degree program. The following
is a list of additional causes for dismissal:
1. Failure to meet generally accepted stand-
ards of ethical and professional conduct
and clinical practice. Such dismissal
is subject to review by a committee of
peers, faculty and administration as es-
tablished by the Director of the UBAI.
2. Pleading "Guilty" or "No Contest", or be-
ing found guilty of any crime involving
moral turpitude; in the event of a pre-
existing or new felony the Institute shall
have the right to impose sanctions, in-
ncluding but not limited to dismissal, on
a case by case basis.
3. Repeated violation of public policy, or
demonstration of behavior that creates
safety hazards and/or disrupts the order
of the institution. Dismissal of this nature
is subject to review by a committee of
peers, faculty and administration as es-
tablished by the Director of the Institute.
4. Failure to meet financial obligations or
commitments to the University of Bridge-
port Acupuncture Institute.

The Institute shall have the right to suspend
any student from any or all privileges of a stu-
dent in good standing during the pendency
of any proceeding pursuant to the foregoing
until such time as all University procedures are
terminated.

WITHDRAWAL FROM THE
PROGRAM
If a student withdraws or wishes to take a leave of absence from the University of Bridgeport
Acupuncture Institute and is in good standing he or she is eligible for readmission. A student
who withdraws when not in good academic standing or, who leaves without officially
withdrawing seriously jeopardizes his or her chances of future readmission or admission to
other acupuncture Institutes.

A student who is on Academic Probation will
be placed in a program of Academic Remedia-
tion and will be required to meet with the
Director. If a student withdraws or takes a leave of ab-

sent with plans to reenter at a later date, he or she should make this clear at the time of
withdrawal.

Please note: All requirements for the master's degree in Acupuncture (MS-Acup) must be
completed within five (5) years from the first matriculation to graduation. All requirements
for the master's degree in Traditional Chinese Medicine (MS-TCM) must be completed within
seven (7) calendar years from the first matriculation to graduation. If a student withdraws
one or more times from the program, the cumulative absences must not exceed two years.

Former University of Bridgeport Naturopathic
and Chiropractic students who started acu-

puncture training as a combined-degree stu-
dent during their professional training who
then took a leave of absence or withdrew from the acupuncture institute must demon-
strate competency through examination for all work completed prior to withdrawal from the
program, with the exception of the basic science ("AWB"-designated) courses, upon read-
mission to the program. All such previously completed coursework will then be treated as
transfer credit and the time frame for comple-
tion of the MS-Acup degree will be 4 years
(48 months) from the date of re-entry into the
UBAI program; and the time frame for com-
pletion of the MS-TCM degree will be 5 years
(60 months) from the date of re-entry into the
UBAI program.

If a student wishes to withdraw or take a leave of absence from the University of Bridgeport
Acupuncture Institute, he or she must submit a letter to the Director stating the reason for
withdrawal. The student must also complete all required paperwork from the Registrar's of-

fice. In addition, the student should also note if he/she plans to re-enter the program and the
term (Fall/Spring year) of such re-matric-
ulation.

READMISSION TO THE PROGRAM
To be considered for readmission to the pro-

gram,
Acupuncture Institute

Program after withdrawal or leave of absence, write to the Assistant Director of the Institute requesting readmission and indicate the date of re-entry desired. It is important to do this well in advance of the proposed date of readmission.

Minimum Requirements for Admission MS-AC

Students applying to the Master of Science in Acupuncture degree program should submit a completed application, an application fee, and official transcripts for undergraduate course work to the Office of Acupuncture Admissions. Admission requirements for the acupuncture program include a bachelor’s degree or its equivalent (such as 120 completed semester credits).

The following courses must be included: 6 hours/semester credits of English skills, 3 hours/semester credits psychology, 3 hours/semester credits of social science, 6 hours/semester credits of biology and 6 hours semester credits of chemistry. Biology and chemistry courses must include a laboratory, must be passed with a grade of C or better, and must be a course offered for science majors. A minimum grade point average of 2.25 is required in the science prerequisites.

All science prerequisites (biology and chemistry) must:
1. Be suitable for students majoring in the sciences
2. Have a related laboratory
3. Be passed with a grade of “C” (2.50 on a 4.00 scale) or better

Applicants must understand that possession of minimum requirements does not constitute a guarantee of acceptance.

The University of Bridgeport does not discriminate on the basis of sex, age, color, creed, ethnic origin or handicap in the administration of its education programs or on admission.

Minimum Requirements for Admission MS-TCM

Students applying to the Master of Science in Traditional Chinese Medicine degree program should submit a completed application, an application fee, and official transcripts for undergraduate course work to the Office of Acupuncture Admissions. Admission requirements for the MS-TCM program include a bachelor’s degree or its equivalent (such as 120 completed semester credits). The following courses must be included: 6 hours of English skills, 3 hours psychology, 3 hours of social science, 6 hours of biology and 6 hours of chemistry. Biology and chemistry courses must include a laboratory, must be passed with a grade of C or better, and must be a course offered for science majors. A minimum grade point average of 2.25 is required in the science prerequisites.

Minimum Requirements for Admission MS-CH

Admission requirements for the MS-CH program include a bachelor’s degree or its equivalent (such as 120 completed semester credits). In addition, all applicants must be currently licensed or registered healthcare professionals whose scope of practice includes the use of Chinese herbs and formulae. There are also a number of bioscience and TCM prerequisites for this program:

All those seeking the MS-CH must be health care professionals for whom Chinese materia medica and formulae are part of their currently licensed/registered scope of practice.

Prerequisites - Biomedicine

- Human Anatomy – 4 semester credits
- Human Physiology – 4 semester credits
- Pharmacology – 1 semester credit
- Clinical Diagnosis (human) – 4 semester credits
- Pathology (human) – 4 semester credits

Prerequisites - TCM

- TCM Medical Theory - 36 hours, 2 semester credits
- TCM Diagnosis 1 (TCM substances, 5-elements and zang-fu) – 36 hours, 2 semester credits
- Meridian Theory/Meridian Diagnosis - 36 hours, 2 semester credits

Application Procedures

Application for admission must include:
1. A properly completed Application for Admission form
2. A NON-REFUNDABLE application fee of $50.00
3. Official transcripts of all college records
4. Two letters of recommendation

International Applicants

International applicants must complete an Application for International Students as well as an Application to the Master of Science in Acupuncture degree program. Applicants who have completed their undergraduate pre-professional study in any foreign country must submit official copies of the records of such study as well as certified translations. These records must be evaluated by an appropriate professional agency. Any fees charged by such an agency are the responsibility of the student. Following submission of these documents the Master of Science in Acupuncture degree program, the Director of Health Sciences Admissions will make contact with the prospective student.

All applicants whose native language is not English (including US citizens) must demonstrate proficiency in English at a level appropriate for advanced scientific study. At a minimum, proficiency can be demonstrated in one of the ways listed below:
1. Achieving a score of at least 61 on the Test of English as a Foreign Language (TOEFL) internet based test (iBT) which also requires a minimum speaking exam score of 26 and a minimum writing exam score of 22, or a level 6 on the International English Language Testing System (IELTS). Information on the TOEFL/IELTS can be obtained from TOEFL, P.O. Box 6151, Princeton, NJ 08541-6151, USA. (Or http://www.ets.org)
2. Or successfully graduate from the University of Bridgeport ELI program.

Application Deadlines

Applications must be received prior to July 1. Applications will be accepted each year until the class has been filled.

Notification of Acceptance

Applicants will be notified in writing of the decision.
Acupuncture Institute

cision of the Admissions Committee as soon as a decision is made.

Transfer Credit Policy

Students may apply to have some of the training required by the Acupuncture Institute for graduation transferred from another acupuncture degree-granting program, or an accredited school of post-graduate medical training. Transfer credit will be assessed by the Institute Director and is only awarded for courses similar in content and length, and with instructors similarly qualified as those given by the Acupuncture Institute. Students requesting transfer credit must provide an official course transcript, a school catalog and, if requested, a course syllabus for any course for which transfer credit is requested. Documentation of the transfer of credit awarded, and the institution from which transfer credit was awarded are kept in the student files. No less than 20 clinical credits and 14 didactic class credits must be completed at the Acupuncture Institute for the student to be eligible for graduation and the granting of the MS-Acupuncture and MS-Traditional Chinese Medicine degrees. All students, including transfer students, must complete the Clinical Entrance Exam with a score of no less than 70%, the Clinical Exit Exam and all practical clinical examinations with a grade of 70% or better to be eligible for graduation.

An applicant's credits from another Institute may be considered for transfer only under the following conditions:

1. The applicant must meet current prerequisites in force at the University of Bridgeport Acupuncture Institute at the time the student originally enrolled at the health profession institution from which the transfer is being made, regardless of having been accepted to the institution from which they are transferring. In many cases, University of Bridgeport Acupuncture Institute’s requirements are higher than those for other acupuncture related professional schools.

2. Be courses for a student majoring in the medical sciences, acupuncture or TCM medicine

3. The institution from which the student is transferring must be acceptable to the Admissions Committee of the University of Bridgeport Acupuncture Institute, such as another acupuncture degree-granting program, or an accredited school of post-graduate medical training.

4. The credits being transferred must be equivalent in credit hours content and quality to that of the University of Bridgeport Acupuncture Institute. If the University of Bridgeport Acupuncture Institute course contains a laboratory so must the course being considered for transfer. In order to verify equivalence, students may be required to provide a course description or course syllabus for comparison.

5. Only credits with a grade of “C” (2.00 on a 4.00 scale) or better are considered for transfer. Transfer credit is credit only; the transferred grade will not affect the QPR.

6. In order to obtain transfer credit the student must have graduated or have been granted an honorable withdrawal from the professional or graduate school attended.

7. To receive transfer credit for any courses taken 3 or more years prior to entering the University of Bridgeport Acupuncture Institute, and for any course completed during an apprenticeship or other non-traditional or non-accredited learning environment, the student must demonstrate competency through examination. The passing grade for such exams is 75%.

8. Credits used to satisfy the minimum prerequisites for admission must not be used for advanced placement credit.

9. All international transcripts and course descriptions must be evaluated by an approved foreign credential evaluation service.

Advanced Standing

Students who are accepted as transfer students may receive advanced standing if a substantial number of semester hours have been accepted by University of Bridgeport Acupuncture Institute. This may enable the student to complete either the MS-ACUP program in less than six semesters, or the MS-TCM degree in less than eight semesters. Transfer credit may be granted either with or without advanced standing. If advanced standing is granted:

No more than 84 credits may transfer from another institution of acupuncture or TCM medicine for the MS-ACUP degree. No more than 110 credits may transfer from another institution of acupuncture or TCM medicine for the MS-TCM degree. No less than 20 clinical credits and 14 didactic class credits must be completed at the Acupuncture Institute for a student to be eligible for graduation and the granting of the MS-Acupuncture or MS-Traditional Chinese Medicine degree. All students, including transfer students, must complete the Clinical Entrance Exam with a score of no less than 75%, the Clinical Exit Exam and all practical clinical examinations with a grade of 70% or better to be eligible for graduation.

Advanced standing in the Acupuncture Institute requires evaluation of official transcripts and course descriptions from the institution of higher learning where the student received his or her training as described in Transfer Credit above. Foreign students must have their transcripts evaluated by a foreign transcript evaluating services, such as World Educational Services (WES). A special curriculum schedule will be made up for the student based on semester hours transferred and course availability.

Tuition will be calculated based on the number of credits being taken per semester multiplied by the single credit fee at the time of the student’s attendance. If the total number of credits exceeds 13 in any one semester, the student will be responsible for paying the full time tuition rate.

If advanced standing is not granted, but some semester hours are transferable, the student will be admitted to the first semester and will be exempt from courses for which transfer credit was granted.

Former University of Bridgeport students in the other graduate-level health sciences programs who started acupuncture training as a combined-degree student during their professional training who then took a leave-of-absence or withdrew from the Acupuncture Institute must demonstrate competency through examination for all work completed prior to withdrawal from the program, with the exception of the basic science (“AWB”-designated) courses, upon readmission to the program. All such previously completed coursework will then be treated as transfer credit and the time frame for completion of the MS-Acupuncture degree program will be four (4) years (48 months) from the date of re-entry into the UBAI program; and the time frame
for completion of the MS-Traditional Chinese Medicine degree program will be five (5) years (60 months) from the date of re-entry into the UBAI program.

Evaluation of advanced standing is completed by the Director of the Acupuncture Institute. Upon request, a letter is sent to the student, with a copy available in the student file, of all coursework which is acceptable for transfer credit. The transfer credit grades will not appear on official transcripts from the University of Bridgeport and the grades from those classes will not affect a student’s GPA.

Course prerequisites must be completed by all students, including those taking courses as auditors, before admission to a course will be granted. Exceptions may be made by permission of the Director under the following special circumstances:

1. A student has skills equivalent to completion of the pre-requisites from non-traditional training or experience (i.e.: in an apprenticeship). Students may request a waiver from completing the pre-requisites before taking more advanced courses. Students will have to complete all such courses or demonstrate competency through examination before graduation from the Acupuncture Institute.

2. A University of Bridgeport Health Sciences graduate student requires special skills for an outreach clinic setting (e.g.: clean needle technique and auricular acupuncture for NADA-style detox treatments).

Transfer of Credit for Foreign Health Profession Institutions

To be eligible for transfer of credits, applicants from foreign acupuncture, medical, chiropractic, osteopathic or dental institutions located in countries that do not have an accreditation system equivalent to those of the United States, must submit evidence of proficiency in all work submitted for advance standing credit. Credits from foreign Institutes and universities must have transcript evaluation performed by a reputable transcript evaluation service.

To receive advanced-standing for courses taken 3 or more years prior to entering the University of Bridgeport Acupuncture Institute, and for any course completed during an apprenticeship or other non-traditional or non-accredited learning environment, the student must demonstrate competency through examination. The passing grade for such exams is 75%.
College of Chiropractic

Interim Dean: Paul Sherman
Elenore Dana Hall
30 Hazel Street
Telephone: (203) 576-4278
Fax: (203) 576-4483
E-mail: psherman@bridgeport.edu

Coordinator, Academic Affairs:
Paul Sherman
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Director of Admissions: Leanne Proctor
Telephone: (203) 576-1348

Faculty: Azizi, Cantito, Ebbets, Funk, Good, Hughes, Kelliher, Lehman, Lisi, Muhs, Onorato, Perle, Perrault, Saporito, Sawitzke, Shelton, Sherman, Synkowicz, Terry, Zolli

Chiropractic is the philosophy, art, and science which concerns itself with the relationship between structure and function of the human body, as that relationship may affect the restoration and preservation of health. The College of Chiropractic prepares students to be primary health care providers. Each student is educated to diagnose, to care for the human body, to understand and relate fundamental scientific information, and to consult with, or refer to other health care providers.

The University of Bridgeport College of Chiropractic is a non-profit, coeducational professional institution which grants the Doctor of Chiropractic (D.C.) degree to graduates who successfully complete four academic years of study including a clinical internship. The program is offered on a full-time basis with no students admitted to a part-time course of study. There are no correspondence courses offered.

All requirements for the D.C. degree must be completed within seven years from the dated of matriculation.

Degree
Doctor of Chiropractic (D.C.)

Accreditation & Membership
The doctor of chiropractic degree program of the University of Bridgeport College of Chiropractic is accredited by the Commission on Accreditation of the Council on Chiropractic Education, 8049 N. 85th Way, Scottsdale, AZ 85258, 480-443-8877. The College of Chiropractic is also a member of the Association of Chiropractic Colleges.

Mission Statement
Provide a comprehensive, full-time education that prepares qualified candidates to become doctors of chiropractic.

To adhere to a curriculum that emphasizes:
- The body is an integrated unit;
- The body has intrinsic self-regulating and healing mechanisms;
- Structure and function are interrelated;
- The neuromusculoskeletal system can affect the functioning of other body systems and, in turn, can be affected by these systems.

Produce graduates who will be competent to practice as portal of entry chiropractic physicians, providing diagnostic services, health services, humanistic care and conservative methods of therapeutics to assist patients in achieving health and wellness.

Advance chiropractic and its knowledge base through scholarship and research.

Provide opportunities for faculty, students and staff to engage in activities which service the needs of the chiropractic profession and the public.

Provide for continuous improvement and quality of our programs through assessment, and by fostering an atmosphere of knowledge, growth and open discussions.

Curriculum
A Doctor of Chiropractic is a physician whose purpose is to meet the health needs of the public as a member of the healing arts. He/she gives particular attention to the relationship of structural and neurological aspects of the body and is educated in the basic and clinical sciences as well as in related health subjects. Chiropractic science concerns itself with the relationship between structure (primarily the spine), and function (primarily coordinated by the nervous system) of the human body as that relationship may affect the restoration and preservation of health.

“The DCP of the University of Bridgeport incorporates the understanding of chiropractic as a profession practicing primary health care, provides curricular and clinical evidence of that through outcome measures, and consists of education and training to prepare graduates to:

A. Practice direct contact health care as a portal-of-entry provider for patients of all ages and genders;

B. Assess the patient’s general health status, complaints and problems leading to a diagnosis. Specific elements of patient assessment minimally include complete health history; review of systems; physical, biomechanical and neurological examination; the analysis of vertebral and extra-vertebral subluxation; and, when clinically indicated, diagnostic imaging, clinical laboratory, and/or specialized diagnostic procedures;

C. Develop a goal-oriented case management plan that addresses any subluxations or other neurobiomechanical problems, and that may include rehabilitation and/or other therapeutic modalities;

D. Develop appropriate doctor/patient relationships with continuity in the chiropractic management of health problems, and coordination of care with other health-care providers; and

E. Promote wellness by assessing health risk and providing problem-related, general and public health information, and lifestyle counseling.

The purpose of chiropractic professional education is to provide the student with a core of knowledge in the basic and clinical sciences and related health subjects sufficient
to perform the professional obligations of a doctor of chiropractic.

A doctor of chiropractic is a primary care physician whose purpose as a practitioner of the healing arts, is to help meet the health needs of individual patients and of the public, giving particular attention to the structural and neurological aspects of the body.

The application of science in chiropractic concerns itself with the relationship between structure, primarily the spine, and function, primarily coordinated by the nervous system of the human body, as that relationship may affect the restoration and preservation of health.

Further, this application of science in chiropractic focuses on the inherent ability of the body to heal without the use of drugs or surgery.

As a gatekeeper for direct access to the health delivery system, the doctor of chiropractic’s responsibilities as a primary care physician include wellness promotion, health promotion, health assessment, diagnosis and the chiropractic management of the patient’s health care needs. When indicated, the doctor of chiropractic consults with, co-manages, or refers to other health care providers.” (From the Council on Chiropractic Education Standards for Doctor of Chiropractic Programs, January 2007)

It is the purpose of the University of Bridgeport College of Chiropractic program to offer as a minimum those courses and objectives as suggested in the CCE standards. It is also the purpose of the UBCC program to offer a broad-based educational experience. In many cases, the educational program presented will go beyond the course offerings suggested by CCE and will also go beyond individual state laws and scope of practice.

The University of Bridgeport College of Chiropractic curriculum is divided into three phases: Basic Sciences, Clinical Sciences, and Clinical Services.

Basic Sciences
The basic science curriculum instructs students in Anatomy, Physiology, Biochemistry, Microbiology, Public Health, and Pathology. These courses are offered primarily during the first two years of a student’s education. It is the purpose of this aspect of the program for students to develop an understanding of both normal and abnormal structure and function, homeostatic mechanisms, and to gain a foundation upon which the clinical sciences will be built.

Clinical Sciences
Students from their first semester onward are instructed in the Clinical Sciences. Course offerings include: Chiropractic History, Chiropractic Principles and Practice, Diagnosis, Radiology, Technique Procedures, Nutrition, and Physiological Therapeutics and Rehabilitation Procedures. Students are given in-depth training in the diagnosis and treatment of patients. Practical hands-on training is included beginning in Semester I and continuing to graduation. Information from the basic science curriculum is integrated into the clinical science course offerings and is a foundation upon which the clinical science courses build. Many of the clinical science courses have as a prerequisite successful completion of the basic science courses.

Clinical Services
The Clinical Services phase of the curriculum is the last and most important aspect of the UBCC program. Interns at the College’s Chiropractic Health Center care for patients under the supervision and direction of licensed doctors of chiropractic. To be eligible for this part of the curriculum, students must be in good academic standing, successfully completed all courses in Semesters I thru V, and successfully completed the clinical services entrance examination. During the Clinical Services portion of the program students will continue to receive training in the clinical sciences. They will also continue to be evaluated during their internship in order to remain eligible for clinical services. To continue in Clinical Services, students must remain in good academic standing. Towards the completion of the Clinical Services program students will be administered a clinical competency examination which must be successfully completed prior to graduation.

Because each course is integrated with other course offerings, students should be aware of the prerequisite and corequisite requirements. Throughout the curriculum every effort is made to insure the relevance of information to chiropractic principles and practice. The following is a breakdown, by subject, of the time devoted to each area of study within the curriculum.

Licensure Requirements and Career Opportunities

LICENSURE REQUIREMENTS

The Doctor of Chiropractic degree program offered by the University of Bridgeport College of Chiropractic is accredited by the Council on Chiropractic Education. As indicated in a previous section, the college meets or exceeds the minimum educational requirements suggested by the CCE. Students who receive the Doctor of Chiropractic degree from UBCC are eligible for licensure in all states, Washington, D.C., Puerto Rico, the Canadian Provinces and other foreign countries as regulated by local laws and regulations without restrictions. Licensure in many states require students to complete Parts I, II, III, and Physiotherapy examination as offered by the National Board of Chiropractic Examiners (NBCE). Additionally, states also require that students pass the Part IV Practical Examination offered by the NBCE. Students should contact the NBCE or the Federation of Chiropractic Licensing Boards (FCLB) for additional information pertaining to licensure where they wish to practice. The College maintains a directory published by FCLB in the library as well as within various offices located in the College of Chiropractic. The directory contains information pertaining to licensure and to scope of practice within each state.

CAREER OPPORTUNITIES

Approximately ninety (90%) percent of the students who have entered the UBCC have completed the requirements for graduation as outlined in this catalog. Most graduates of UBCC go directly into a private practice of their own. Other graduates work as an associate with an experienced doctor or they may rent space within an existing practice.

COMPLAINT PROCEDURES

Any complaint regarding the Doctor of Chiropractic Program and its compliance with the CCE Standards may be addressed to the
The Council on Chiropractic Education
8049 N. 85th Way
Scottsdale, AZ 85258-4321
Telephone: (480) 443-8877
Fax: (480) 483-7333
Website: www.cce-usa.org

Semester Based Curriculum
(18 WEEK PROGRAM PER SEMESTER)

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<td>TE 716L</td>
<td>Technique Procedures IV: Intermediate Full Spine and Lower Extremity Technique Lab</td>
</tr>
<tr>
<td>DI 714</td>
<td>Diagnostic Imaging IV: Arthritis and Trauma</td>
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<tr>
<td>PT 711</td>
<td>Physiological Therapeutics I: Modalities</td>
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<tr>
<td>DD 711</td>
<td>Differential Diagnosis I: Internal Disorders</td>
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<tr>
<td>CN 712</td>
<td>Clinical Nutrition: Treatment and Management</td>
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<tr>
<td>PH 713</td>
<td>Toxicology &amp; Pharmacology</td>
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<tr>
<td>TE 717</td>
<td>Technique Procedures V: Soft Tissue II</td>
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<td>ER 711</td>
<td>Emergency Procedures</td>
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<tr>
<td>RS 711</td>
<td>Evidence Based Practice I</td>
</tr>
<tr>
<td>PS 711</td>
<td>Clinical Psychology</td>
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<tr>
<td>PP 715</td>
<td>Principles and Practice V: Ethics</td>
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<tr>
<td>DI 725</td>
<td>Diagnostic Imaging V: Chest and Abdomen</td>
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<tr>
<td>TE 728</td>
<td>Technique Procedures VI: Advanced Chiropractic Technique I</td>
</tr>
<tr>
<td>TE 728L</td>
<td>Technique Procedures VI: Advanced Chiropractic Technique I Lab</td>
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<tr>
<td>DI 726</td>
<td>Diagnostic Imaging V: Positioning and Physics</td>
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<tr>
<td>DD 722</td>
<td>Differential Diagnosis II: Neuromusculoskeletal</td>
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<td>Course Identification</td>
<td>Semester</td>
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<tr>
<td>RS 824</td>
<td>SEMESTER SEVEN</td>
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</tbody>
</table>

**Clinical Sciences**

- Principles, Practice and Philosophy: 144 hours
- Chiropractic History: 36 hours
- Evidence Based Chiropractic: 36 hours
- Contemporary Chiropractic: 36 hours
- Research: 36 hours
- Imaging I: 72 hours
- Imaging II: 54 hours
- Bone Pathology: 72 hours
- Arthritis: 72 hours
- Chest: 54 hours
- Positioning and Physics: 72 hours
- X-Ray Review: 36 hours
- Research: 0 hours
- Thesis I, II, III, IV: 0 hours
- Physiological Therapeutics: 126 hours
- Physiological Therapeutics I: 54 hours
- Physiological Therapeutics II: 72 hours
- Rehabilitation: 72 hours

**Differential Diagnosis**

- Differential Diagnosis I: Internal: 216 hours
- Disorders: 108 hours
- Differential Diagnosis II: NMS: 72 hours
- Psychology: 36 hours
- Chiropractic Skills and Technique: 756 hours
- Technique Skills I: Spine: 90 hours
- Technique Skills II: Extremities: 72 hours
- Technique Procedures I: 72 hours
- Technique Procedures II: 108 hours
- Technique Procedures III: 72 hours
- Technique Procedures IV: 108 hours
- Technique Procedures V: 36 hours
- Technique Procedures VI: 90 hours

**Basic Sciences**

- Anatomy: 504 hours
- Cellular Anatomy and Physiology: 54 hours
- Functional Anatomy I: Spine: 108 hours
- General Anatomy I: Visceral: 108 hours
- General Anatomy II: Head & Neck: 108 hours
- Functional Anatomy II: Extremities: 108 hours
- Clinical Embryology: 18 hours
- Physiology: 180 hours
- Organ Systems Physiology I & II: 144 hours
- Toxicology: Pharmacology: 36 hours

**CLINICAL SCIENCES**

- BP Business Procedures: CH Chiropractic Exam Skills
- CN Clinical Nutrition: DD Differential Diagnosis
- DI Diagnostic Imaging: DX Clinical Diagnosis
- RS Emergency Procedures: PP Principles and Practice
- PS Clinical Psychology: PT Physiological Therapeutics
- RS Research Skills: TE Technique Procedures

**Clinical Services**

- Clinic I: Student Clinic: 108 hours
- Clinic II: 450 hours
- Clinic III: 450 hours
- Clinic IV: 150 hours

**Total Hours**

- 4578 hours

**Course Identification for the Semester Curriculum**

- 700 level - courses offered in year three
- 600 level - courses offered in year two
- 500 level - courses offered in year one

The course numbering system is as follows:

- 500 level - courses offered in year one
- 600 level - courses offered in year two
- 700 level - courses offered in year three
College of Chiropractic

800 level - courses offered in year four
The next digit identifies the semester the course is given in that academic year. The third digit indicates the sequence within that discipline.

- e.g. AN 511
  AN - Anatomy
  5- year one
  1- semester one
  1 - first course in discipline sequence

Grades earned by students are submitted to the Registrar utilizing the following designations. Grades earned are on a four (4) point scale with an “A” or 4 quality points being the highest grade attained. Grades with quality points are:

<table>
<thead>
<tr>
<th>GRADE QUALITY POINTS</th>
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<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
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<tr>
<td>F</td>
<td>0.0</td>
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<tr>
<td>W</td>
<td>0.0</td>
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</table>

The cumulative quality point ratio (QPR) is determined by dividing the number of semester hours into the number of points earned. A grade of “D” is not an acceptable passing grade. Transfer credits are not included in this computation.

In addition to the Academic Grades submitted by faculty, the following Administrative Grades are also utilized.

**Administrative Grades**

1. The grade of Incomplete “I”, is used by the faculty to indicate that a student has not completed all course requirements. A student will have one week from the last day of the term to meet with the faculty and complete all course requirements. Upon completion of the course requirements the faculty will submit the earned grade. Failure by the student to meet with the faculty and complete the requirements in one week from the last day of the term will result in the grade of “I” being converted to a grade of “F.”

Any student with a grade of “F” or “W” will be required to register and retake that course in its entirety when the course is regularly scheduled. Any student with a grade of “F” or “W” will not be eligible to register for courses for which that course is a prerequisite.

R  Students may repeat a course at any grade level below “A”. The first repeat will replace the first-time grade for the computation of the QPR.

TCR  This indicates transfer credit granted for equivalent work completed at another accredited institution.

W  Withdrawal grades are assigned based on the following policy statements:

1. If the student officially withdraws from a course during the official change-of-registration period, that course does not appear on the student’s transcript.
2. If a student officially withdraws from a course after the end of the change-of-registration period, but before the end of the official withdrawal period, a grade of “W” is assigned and that course remains on the student’s transcript. Courses with a grade of “W” do not count toward the QPR and do not count toward “hours attempted.”
3. The names of students who have officially withdrawn from a course and receive the grade of “W” are so listed on the class roster for the balance of the semester.
4. Any exceptions to the above, including late withdrawals, must be approved by the Dean and the Provost before they become official and are recorded. Poor academic performance does not constitute a valid reason for late withdrawal.

Academic policies used to manage and direct the academic program are:

1. Attendance Requirements
2. Requirements for Graduation
3. Good Academic Standing
4. Academic Warning, Probation and Dismissal
5. Dismissal from the College (Non-Academic)
6. Withdrawal from the Program
7. Readmission to the Program

**Attendance Requirements**

Each student is expected to attend all lectures and laboratories and other activities associated with the total completion of a given course.

A student who is absent from class in excess of ten percent of the total class hours may have his or her grade reduced for lack of participation as outlined in the course syllabus. A student absent in excess of twenty present of the total class hours will receive a grade of “F.”

**Requirements for Graduation**

In order to be eligible for graduation from the College, candidates must meet the following criteria:

1. Have successfully completed a minimum of four academic years of resident study in an accredited institution granting a first professional degree. The last 3 semesters must have been in residence at the University of Bridgeport College of Chiropractic. A student must complete at least 25% of the program to qualify for a UBCC degree and have completed all requirements within 7 years of matriculations.
2. Have successfully completed all requirements of the educational program and have achieved a 2.50 cumulative grade point average.
3. Have successfully passed parts I and II of the National Board of Chiropractic Examiners.
4. Have been recommended for graduation by the College Faculty and Administration.
5. Have satisfactorily met all financial obligations to the College, Office of Financial Aid, publication of the class yearbook and commencement exercises.

**Satisfactory Academic Progress**

Students enrolled in the UBCC Doctor of Chiropractic degree program are in good academic standing and are making satisfactory academic progress, if they have successfully achieved the following criteria upon completion of their most recent semester of course work:

1. Did not receive a grade of “F” or “D” in any course, and
2. Maintain a cumulative grade point average of 2.50 or better.
A student who has not achieved the above criteria is not making satisfactory academic progress and will be required to follow the criteria as outlined in the catalog regarding Academic Probation and Dismissal.

**Good Academic Standing**

Good academic standing is achieved when a student is maintaining good grades, has met all financial responsibilities to the College and is not guilty of any breach of the standards governing ethical and clinical conduct.

**ACADEMIC WARNING, PROBATION AND DISMISSAL**

Safeguards have been built into the system to protect students who are not performing well academically from suffering academic failure. During the semester, the faculty reports to the Dean on a regular basis, concerning the grades of all students in their courses. If it is noted that particular students are doing poorly, these students will be contacted to set up an interview. The interview will consist of a discussion of the causes for the student’s poor performance and ways in which he or she might improve a grade.

**ACADEMIC WARNING**

Academic warning will result when the following is taking place:

1. The most recent semester quality point ratio falls below a 2.00.

**ACADEMIC PROBATION**

Academic Probation occurs when the student’s QPR falls below 2.50 or if a student receives a grade of “F or D” in one or more courses. A student on academic probation is not eligible to carry a full academic course load.

**ACADEMIC REMEDIATION**

A student on academic probation will be placed in a program of Academic Remediation. The student is required to meet with the Associate Dean of the College to determine what courses will be retaken to satisfy the requirements of Remediation. In general, academic Remediation requires a student to repeat all grades of “F or D”, carry a reduced academic load.

**ACADEMIC DISMISSAL**

A student who does not show substantial academic improvement after one semester of Remediation, or who is unable to achieve a QPR of 2.50 after two semester of Remediation will be dismissed from the College of Chiropractic.

Academic dismissal may also occur if a student’s QPR falls below a 2.50 on a second occasion. Any student not achieving a QPR of at least 1.75 upon completion of the first semester of study will be academically dismissed from the College of Chiropractic.

**DISMISSAL FROM THE COLLEGE**

Academic inadequacies are not the only reasons for dismissal from the College or University. The following is a list of additional causes for dismissal:

1. Failure to meet the generally accepted standards of ethical conduct and clinical practice. Dismissal of this nature is subject to review by a committee of peers, faculty and administration.
2. Pleading guilty or “nolo contendere,” or being found guilty of any crime involving moral turpitude or being felonious in nature.
3. Repeated violation of public policy, or the demonstration of behavior that creates safety hazards and/or disrupts the order of the institution. Dismissal of this nature is subject to review by a committee of peers, faculty and administration.
4. Failure to meet financial obligations or commitments to the College or University.

**WITHDRAWAL FROM THE PROGRAM**

If a student withdraws from University of Bridgeport College of Chiropractic in good standing he or she is eligible for readmission. A student who withdraws when not in good academic standing or, who leaves without officially withdrawing, seriously jeopardizes his or her chances of future re-admission.

If a student withdraws with plans to re-enter at a later date, he or she should make this clear at the time of withdrawal.

All requirements for the doctoral degree must be completed within seven years from the first matriculation to graduation. If a student withdraws one or more times from the program, the cumulative absences must not exceed three and one half years.

**READMISSION TO THE PROGRAM**

To be readmitted to the program after withdrawal, a student must write to the Associate Dean for Academic Affairs requesting readmission and indicate the date of re-entry desired. It is important to do this well in advance of such a date.

**Minimum Requirements for Admission**

The University of Bridgeport College of Chiropractic does not discriminate on the basis of sex, age, color, creed, ethnic origin or handicap in the administration of its education programs or on admissions.

All candidates for admission must furnish proof of having acquired three years (90 acceptable semester hours or more) of study, creditable towards a baccalaureate degree, taken in accredited, degree-granting institutions. Pre-professional education acquired must have been completed with a minimum cumulative Quality Point Ratio of 2.50 on a 4.00 scale. A baccalaureate degree is recommended.

All candidates must have completed the following specific courses as part of their pre-professional preparation:

- Communication/Language Skills 6 Semester Hours
- Psychology 3 Semester Hours
- Chemistry: General and Organic (w/ Lab) 12 Semester Hours
  - General: 3 semester hours minimum
  - Organic: 9 semester hours minimum
- Electives (Social Sciences/Humanities) 15 Semester Hours
- General Bio/Anat & Phys (w/ Lab) 8 Semester Hours (2 consecutive courses)
- General Physics (w/ Lab) and related Studies 8 Semester Hours
College of Chiropractic

All bio/anat & phys, chemistry and physics courses must:

• Be courses suitable for students majoring in sciences.
• Consist of a first semester and second semester course in each subject.
• Be passed with a grade of “C” (2.00 on a 4.00 scale) or better. Cumulative science quality point ratio must be 2.25 or better.
• Have a related laboratory.

For Admission beginning with the fall 2003, all matriculants must furnish proof of having earned a minimum of 30 semester hours in upper division credits.

A personal interview is required. Under extenuating circumstances a telephone interview will be granted.

Applicants must understand that possession of minimum entrance requirements does not constitute a guarantee of acceptance. Each entering class is selected from a large pool of eligible candidates, a majority of whom have completed four-year degrees. Those students selected for acceptance usually have obtained grades which are substantially higher than the minimum requirement.

Physical Qualifications for Admissions

The following physical qualifications are required for participation in the doctoral degree program at the UB College of Chiropractic. These qualifications are essential for the preparation of the Doctor of Chiropractic. Students at the College must be able to perform at a high level of competency in all phases of classroom, clinic, and laboratory activities as they will ultimately use the knowledge attained as Doctors of Chiropractic.

The qualifications are as follows:

1. The student must possess the coordination and use of both upper limbs as their use is required for, among other skills, the performance of the chiropractic adjustment, the primary skill of a practicing Doctor of Chiropractic.
2. The student must possess manual dexterity so that he/she may perform in the various clinical, chiropractic, and basic science laboratories without posing a threat to him/herself, patients, or his/her fellow students’ safety and well-being.
3. The student must have the ability to stand not only in the performance of manipulative procedures but others as well.
4. The student must have hearing and visual senses, appropriately assisted if needed, acute enough to individually record patient histories, to provide routine safety instructions, and perform stethoscopic and other auscultatory examinations, to read all forms of diagnostic imaging, and to perform microscopy examinations so that he/she can adequately interpret normal, abnormal, and pathological changes.

Handicapped persons will not be summarily denied admission, nor will higher scholastic requirements be demanded of them. They, like all other students, must carry out classroom, laboratory, and clinical assignments, including microscopic work, x-ray interpretation and techniques, or the equivalent, pass written, oral, and practical examinations and meet all the requirements of the College.

Cancellation of Admission or Registration

The college reserves the right to cancel the admission or registration of individuals whose attendance at the college, in the opinion of the appropriate administrative officers and dean, is not mutually beneficial to that person and to the institution.

Individuals who have registered at other educational institutions may not disregard such records and make application on the basis of high school and selected college transcripts.

Applicants who gain admission to the college on the basis of incomplete or fraudulent credentials or misrepresentations in their written application for admission may have their:

• admission and registration canceled without refund of any fees; and
• total credits rescinded that have been earned following such admissions; and
• future registration at the college prohibited.

Pre-Professional Requirements for Licensure

It is most important that all candidates for admission thoroughly investigate the specific requirements of each state in which they plan to practice. In some cases, pre-professional requirements must be completed prior to entrance into a chiropractic program in order to be qualified to apply for a state licensing examination.

International Applicants

International Applicants must complete an Application for International Students as well as an Application to the College of Chiropractic.

Applicants who have done pre-professional study in foreign countries must submit official copies of the records of such study as well as translations if the original records are not in English. Usually, these records must be evaluated by an appropriate professional agency. Any fees charged by such an agency are the responsibility of the student. Following submission of these documents to UBCC, the Director of Admissions will make contact with the prospective student.

If the applicant is a native of a foreign country, he or she must demonstrate proficiency in English at a level appropriate for advanced study. At a minimum proficiency can be demonstrated in one of the ways listed below:

1. A score of 550 or better on the Test of English as a Foreign Language (TOEFL) and a score of 50 or better on the Test of Spoken English (TSE). Information on the TOEFL/TSE can be obtained from TOEFL, P.O. Box 6151, Princeton, NJ 08541-6151, USA or;
2. Receipt of a grade “C” or better in one semester of English at an accredited U.S. college or university or;
3. A letter showing successful completion of the University of Bridgeport’s English Language Institute.

Application Procedures

Application for admission must include:

1. A properly completed Application for Admission form.
2. Application Fee.

The applicant must provide the following to the Director of Admissions:
College of Chiropractic

1. Official transcripts of all college records.
2. Three letters of recommendation, one must be from a health care professional.

Selection of Candidates
The University of Bridgeport College of Chiropractic is coeducational and does not discriminate against any applicant on the basis of sex, race, creed, color or national origin. (Title VI, Civil Rights Act 1964)

All eligible finalists are invited for a personal interview before any action is taken upon their application.

Among the qualities typical of most successful candidates for admission, the following are especially important:
1. Superior communication skills, both oral and written.
2. Evidence of strong motivation to becoming a helping professional and, more specifically, a chiropractor.
3. Initiative and honesty as evidenced in the candidates’ transactions within the application process and in all information submitted in support of the application.
4. Academic achievement which compares favorably with that of successful students at the University of Bridgeport College of Chiropractic.

Application Deadlines
Applications for admission may be submitted at any time.

NOTIFICATION OF ACCEPTANCE
Applicants will be notified in writing of the decision of the Admissions Committee as soon as a decision is made.

Transfer Students
Transfer Credit
The University of Bridgeport College of Chiropractic may grant transfer credit for courses taken in accredited professional and graduate schools. In doing so, the following requirements must be met:

1. The courses taken must have content equivalent to courses given at UBCC. If the UBCC course contains a laboratory, so must the course being considered for transfer.
2. A course being considered for transfer must have credits and hours equivalent to or greater than the same course at UBCC.
3. Any course to be transferred must have been passed with a grade of C or better. (2.0 on a 4.00 scale.)
4. A transferred course carries credit equal to the UBCC course for which credit is granted. The original grade earned is not transferred and does not affect the student’s QPR at UBCC.
5. In order to obtain transfer credit the student must have been granted an honorable withdrawal from the professional or graduate school attended. An overall Grade Point Average (GPA) of a 2.50 (on a 4.0 scale) or higher must be achieved in order to be considered for transfer status or advanced standing.

It is important to note that all transfer students must meet the entry level prerequisite requirements for first semester students regardless of having been accepted to the institution from which they are transferring. In many cases, UBCC’s requirements are higher than those for other chiropractic and professional schools.

Prospective transfer students should note that an admissions application to UBCC is needed in order to begin a review for transfer credit. Students wishing to transfer must provide the Admissions Committee with an official transcript and a catalog from the chiropractic, professional or graduate school/s from which they are transferring, as well as a syllabus from each course for which the student is requesting transfer credit.

Advanced Standing
Students who are accepted as transfer students may receive advanced standing if a substantial number of semester hours have been accepted by UBCC. This could possibly enable the student to complete the D.C. program in less than 8 semesters. Transfer credit may be granted either with or without advanced standing, Effective Fall 2005, The University of Bridgeport College of Chiropractic will grant no more than a maximum of 20% of advanced standing credit/hours towards our curriculum. A transfer student is eligible to receive no more than 42 transfer credits. Potential transfer students should be aware that in most cases they would have to complete approximately, 3 to 3 1/2 years at UBCC if accepted. If advanced standing is granted:

1. A special curriculum schedule will be made up for the student based on semester hours transferred and course availability.
2. Tuition will be calculated based on the number of credits being taken per semester multiplied by the single credit fee (if less than 14 credits per semester) at the time of the student’s attendance.

If advanced standing is not granted, but some semester hours are transferable, the student will be admitted to the first semester and will be exempt from courses for which transfer credit was granted.
College of Naturopathic Medicine

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Naturopathic medicine is a distinct profession of primary health care that emphasizes prevention and treatment of disease, and promotion of optimal health and wellness through the use of natural therapies that enhance the inherent healing wisdom of nature, the vis medicatrix naturae. Rooted in tradition, naturopathic physicians utilize clinical nutrition, botanical medicine, homeopathy, physical medicine, and other natural modalities to help patients thrive. Most naturopathic physicians are in private practice, though opportunities in group and integrative practice settings, research, and education are rapidly growing. The University of Bridgeport, College of Naturopathic Medicine (UBNMC) trains students to a broad scope of practice, to prepare students to practice across North America. Students are responsible for being informed of licensure requirements and scope of practice in the legal jurisdiction in which they plan to practice.

Degree
Doctor of Naturopathic Medicine (N.D.)

Recognition and Memberships
UBCNM is approved to offer the degree of Doctor of Naturopathic Medicine by the Connecticut State Office of Higher Education. The College of Naturopathic Medicine program is accredited by the Council on Naturopathic Medical Education (CNME). Their contact information is P.O. Box 178, Great Barrington, MA 01230, telephone: 413-528-8877, and email: staff@cnme.org. The University of Bridgeport is accredited by the Council on Institutions of Higher Education (CIHE) of the New England Association of Schools and Colleges (NEASC). UBCNM is an institutional member of the Association of Accredited Naturopathic Medical Colleges (AANMC).

College of Naturopathic Medicine Mission Statement
The Mission of UBCNM is to prepare individuals to become physicians who are leaders in patient-centered, collaborative, and sustainable healthcare settings and are guided by a commitment to the philosophy, principles and traditions of naturopathic healing and medicine.

Program Competencies
Prior to graduation from the College of Naturopathic Medicine students are required to meet the standards of knowledge, behaviors and practices associated with competency development in naturopathic medicine. These competencies have been established to confirm that graduates from the UBCNM possess the knowledge, values, technical ability, clinical reasoning and communication skills needed to practice medicine safely and effectively. Additionally, it is expected that as medical professionals our graduates will integrate reflection, research and professional development into their medical practices. Competencies include:

1. Patient Care
   • Gather complete, relevant patient information
   • Document encounters including reporting of information and development of an assessment and plan efficiently and accurately.
   • Apply clinical reasoning to patient management
   • Utilize principles of Naturopathic Medicine in assessment and treatment
   • Adhere to the therapeutic order in the context of patient management
   • Apply universal precautions accurately and effectively

2. Communication
   • Maintain cultural awareness and sensitivity
   • Articulate clearly and responsibly in verbal, non-verbal and written forms
   • Employ active listening
   • Choose effective communication tools and techniques including communication technologies to facilitate discussion and enhanced team function

3. Interpersonal Skills
   • Interact effectively and collaboratively within patient care, public and professional settings
   • Respond appropriately to verbal and non-verbal cues
   • Use respectful language in all interactions, including challenging situations and conflicts

4. Medical Knowledge
   • Demonstrate an understanding of established and evolving knowledge of the biomedical and clinical sciences
   • Apply comprehensive understanding of medical knowledge to patient care
   • Employ principles of public health, prevention, and wellness in case management
   • Demonstrate curiosity, objectivity and the use of clinical reasoning in the acquisition of knowledge

5. Professionalism
   • Form doctor-patient relationships that are patient-centered
   • Demonstrate commitment to the profession in a variety of settings, including but not limited to clinical, educational and public environments

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College of Naturopathic Medicine

- Practice ethical behavior that is honest, moral, and responsible
- Adhere to institutional and professional standards for personal, patient, and public safety

6. Values
- Display a commitment to naturopathic principles and philosophy
- Demonstrate reflective practice that incorporates self-care
- Respond to needs of patients and society while

Naturopathic Principles and Practice
The American Association of Naturopathic Physicians has adopted the following official definition of Naturopathic Medicine, its principles and practice:

Naturopathic medicine is a distinct system of primary healthcare — an art, science, philosophy and practice of diagnosis, treatment and prevention of illness. Naturopathic medicine is distinguished by the principles upon which its practice is based. The principles are continually reexamined in the light of scientific advances. The techniques of naturopathic medicine include modern and traditional, scientific and empirical methods. The following principles are the foundation of naturopathic medical practice:

The Healing Power of Nature (Vis Medicatrix Naturae): Naturopathic medicine recognizes an inherent self-healing process in the person which is ordered and intelligent. Naturopathic physicians act to identify and remove obstacles to healing and recovery, and to facilitate and augment this inherent self-healing process.

Identify and Treat the Causes (Tolle Causam): The naturopathic physician seeks to identify and remove the underlying causes of illness, rather than to merely eliminate or suppress symptoms.

First Do No Harm (Primum Non Nocere): Naturopathic physicians follow three guidelines to avoid harming a patient:
- Utilize methods and medicinal substances which minimize the risk of harmful side effects, using the least force necessary to diagnose and treat;
- Avoid when possible the harmful suppression of symptoms;
- Acknowledge, respect and work with the individual's self-healing process.

Doctor As Teacher (Docere): Naturopathic physicians educate their patients and empower them to take responsibility for their health. They also recognize and employ the therapeutic potential of the doctor-patient relationship.

Treat the Whole Person: Naturopathic physicians treat each patient by taking into account individual physical, mental, emotional, genetic, environmental, social, and other factors. Since total health also includes spiritual health, naturopathic physicians encourage individuals to pursue their personal spiritual development.

Prevention: Naturopathic physicians emphasize the prevention of disease — assessing risk factors, heredity and susceptibility to disease and making appropriate interventions in partnership with their patients to prevent illness. Naturopathic medicine is committed to the creation of a healthy world in which humanity may thrive.

PRACTICE
Naturopathic Methods: Naturopathic medicine is defined by its principles. Diagnostic methods, treatments and modalities are selected and applied based upon these principles in relationship to the unique individual needs of each patient.

Naturopathic Practice: Naturopathic practice includes the following diagnostic and therapeutic modalities: clinical nutrition; botanical medicine; naturopathic physical medicine including naturopathic manipulative therapy; public health measures and hygiene; health counseling; minor surgery; homeopathy; acupuncture; naturopathic obstetrics (natural childbirth); and laboratory assessment, diagnostic imaging, and clinical diagnosis.

Curriculum
The academic and clinical curriculum at UBC-NM is an intensive four-year, full-time, that provides students with a foundation in the knowledge and skills essential to the practice of naturopathic medicine. This doctoral degree prepares students for the Naturopathic Physicians Licensing Exam (NPLEX), required for state and provincial licensing exams, and for the general practice of naturopathic medicine.

The curriculum, instruction and clinical experiences are designed to prepare graduates to be competent physicians offering comprehensive healthcare, using traditional and up-to-date methods and modalities in accordance with the principles of Naturopathic Medicine. The first year of the program is devoted to biomedical sciences and naturopathic philosophy. The second year of training is focused on clinical sciences and the beginning of coursework in therapeutic modalities. The last two years focus on naturopathic case management related to organ systems, special populations (e.g., pediatrics and geriatrics), in addition to advanced study of therapeutic modalities.

Clinical training begins during the second year of study, through observation of patient care. During the 3rd year of training, students provide a supportive role in patient care at the on-campus UB Clinics and off-site community clinics in the surrounding area, under the supervision and direction of naturopathic physicians and other licensed physicians. To be eligible for clinical education training and credit, students must be in good academic standing, successfully complete required courses in Semesters I through IV, pass the Clinic Entrance Exam, as well as have current CPR certification.

The course of study consists of four academic years each consisting of two 18-week semesters, as well as some summer and holiday clinic shifts.

COURSE IDENTIFICATION
All CNM courses are identified with the letter "N" as the first letter in the course description, e.g., NBS511 Anatomy I.

Course identification is as follows:

- NBS Basic Sciences
- NBM Botanical Medicine
- NNT Clinical Nutrition
- NCS Clinical Services
- NHLM Homeopathic Medicine
- NOB Naturopathic Obstetrics
- NNP Naturopathic Practice/Organ System
- NPP Naturopathic Principles and Practice
- TCM Traditional Chinese Medicine
- NPM Physical Medicine
College of Naturopathic Medicine
NPS
NRS
NCE

YEAR 2____________________________________

Psychology
Research
Clinical Education

SEMESTER III
NUMBER

COURSE

YEAR 1____________________________________

NBM 611
NCE 631
NCS 611
NCS 612
		
NCS 612L
NCS 613L
NCS 614B
NCS 619
NNT 611
NPM 621
NCS 616
NCS 617
		

Botanical Medicine I
2
Clinical Practicum I
0
Intro to Pathology
3
Clinical, Physical and
Lab Diag. I
6
Physical Examination Lab I 0
Laboratory Diagnosis Lab I 0
Public Health & Micro II
2
Diagnostic Imaging
2
Nutrition I
2
Orthopedic Assessment
1
Immunology
2
Medical Genetics
1
Total
21

SEMESTER I

SEMESTER IV

The course numbering system is as follows:
500
600
700
800

level — courses offered in year one
level — courses offered in year two
level — courses offered in year three
level — courses offered in year four

The second digit identifies the semester the
course is given in that academic year. The
third digit indicates the number of the course
in that sequence, e.g., BS 525 = BS - Basic
Science, and 5 - year one.

Semester Based Curriculum

NUMBER

COURSE

LECT LAB

NBM 521
NBS 511
NBS 511L
NBS 512
NBS 513
NBS 514
NBS 515
TCM 511
TCM 521
NPP 512
NPS 501
NBS 529
NBM 511
		

Phytopharmacognosy
1.5
Anatomy I
4
Anatomy Lab I
0
Histology
2
Embryology
1
Biochemistry I
2
Physiology I
3
TCM Theory
2
TCM Diagnosis I
2
Philosophy of Nat Med I
1
Counseling Skills I
1
Biomedical Integration Lab I 0
Botanical Pharmacy Lab
0
Total
19.5

0
0
3
0
0
0
0
0
0
0
1
4
1
9

CR. SEM.

1.5
4
1.5
2
1
2
3
2
2
1
1.5
2
0.5
24

27
72
54
36
18
36
54
36
36
18
36
72
18
513

SEMESTER II
NUMBER

COURSE

NBS 521
NBS 511L
NBS 524
NBS 525
NBS 526
NCS 524A
NPM 522
NPM 523
NPP 511
		
NPS 511
NRS 521
NBM 511
NCE 511
		
NBS 530
		
		

Anatomy II
4 0
Anatomy Lab II
0 3
Biochemistry II
2 0
Physiology II
3 0
Neuroscience
2 0
Public Health & Micro I
2 1
Living Anatomy: Palpation 0 1.5
Hydrotherapy
1 1.5
History of Naturopathic
Medicine
1.5 0
Physician Heal Thyself
0 1
Research
1 0
Botanical Pharmacy Lab
0 1
Exploring Primary Care
Medicine
1 0
Biomedical Integration
Lab II
0 4
Total
17.5 13

LECT LAB

CR. SEM.

4
1.5
2
3
2
2.5
0.75
1.75

72
54
36
54
36
54
27
45

1.5
0.5
2
1

27
18
36
18

1 18

LECT LAB

NUMBER

COURSE

NBM 621
NCE 641
NCS 621
NCS 622
		
NCS 622L
NCS 623L
NHM 621
NNT 621
NPM 612
NPP 621
		
NOM 511
NPS 621
		

Botanical Medicine II
Clinical Practicum II
Pathology and Dx Imaging
Clinical, Physical and
Lab Diag. II
Physical Examination Lab II
Laboratory Diagnosis Lab II
Homeopathy I
Nutrition II
Physiological Therapeutics
Intro to Biochemical
Individuality
TCM
Psychological Assessment
Total

CR. SEM.

0
2 36
1 0.5 16
2
4 90
0
6
2
1
1 0.75
1 2.5
0
2
0
2
1 1.5
0
2
0
1
8 25.25

LECT LAB

108
36
18
54
36
36
36
36
18
520

CR. SEM.

2
0
4

0
2 36
1 0.5 16
1 4.5 90

6
0
0
2
2
1

0
6 108
2
1 36
1 0.75 18
0
2 36
0
2 36
2
2 54

1
2
2
22

0
1
0
2
0
2
7 25.25

18
36
36
520

YEAR 3____________________________________
SEMESTER V
NUMBER

COURSE

		
NBM 711
NPS 711
NHM 711
NNP 725
NNT 711
NPM 711
NCS 714
NNP 713
NPP 711
NRS 711
Total

* Clinic Education
0 12
6 198
Botanical Medicine III
2 0
2 36
Counseling Skills II
1 1 1.5 36
Homeopathy II
2 0
2 36
Gynecology
2 0
2 36
Nutrition III
2 0
2 36
Naturopathic Manipulation I 1 4
3 90
Clinical Forum I
0 2
1 36
Gastroenterology
2 0
2 36
Practice Management I
1.5 0 1.5 27
Thesis I
1 0
1 18
14.5 19 24 585

LECT LAB

2 72
25.5 567

82

CR. SEM.

SEMESTER VI
NUMBER

COURSE

		
NCS 812
NCS 723
NCS 724
NHM 721
NNT 721
NPM 721
NNP 725L
NCS 721
NNP 722
NNP 721
NPP 722
Total

* Clinic Education
0 12
6 198
Environmental Medicine 1.5 0 1.5 27
Clinical Forum II
0 2
1 36
Emergency Procedures
1 0
1 18
Homeopathy III
2 0
2 36
Nutrition IV
2 0
2 36
Naturopathic Manipulation II 1 4
3 90
Gynecology Lab
0 1 0.5 18
Pharmacology I
2 0
2 36
Cardiology
2 0
2 36
Pediatrics
2 0
2 36
Philosophy of Nat Med II
1 0
1 18
14.5 19 24 585

LECT LAB

CR. SEM.

YEAR 4____________________________________
SEMESTER VII
NUMBER

COURSE

		
NHM 821
NNP 814
NCS 811
NPP 822
NNP 811
NNP 824
NNP 812
NPM 821
		
NOB 811
NRS 811
		

* Clinic Education
Homeopathy IV
Urology/Proctology
Pharmacology II
Practice Management II
EENT
Dermatology
Endocrinology
Therapeutic Ex/Sports
Medicine
Obstetrics
Thesis II
Total

LECT LAB

CR. SEM.

0 20 10 330
2 0
2 36
1 0
1 18
2 0
2 36
1.5 0 1.5 27
1 0.5 1.25 27
1.5 0 1.5 27
2 0
2 36
2 0
2
2 0
2
1 0
1
16 20.5 26.25

36
36
18
627

SEMESTER VIII
NUMBER

COURSE

		
NNP 821
NNP 826
NNP 823
NNP 825
NPP 821
NNP 813
NPS 713
		

* Clinic Education
Geriatrics
Rheumatology
Oncology
Minor Surgery
Jurisprudence/Ethics
Neurology
Mind-Body Medicine
Total

LECT LAB

CR. SEM.

0 20 10 330
1 0
1 18
1 0
1 18
1.5 0 1.5 27
1 1 1.5 36
1.5 0 1.5 27
1.5 0 1.5 27
2 0
2 36
9.5 21 20 519

134.5 52.5 162.25 3380
Academic		
Clinical Education
0 64 32 1056^
GRAND TOTALS
134.5 116.5 194.25 4436
*Please see Clinical Education section for specific clinical rotations offered.
^Does not include Grand Rounds, Dispensary, Preceptorship, or
Community Service hours.


Elective Courses
Elective courses are offered to allow specialization and/or certification in various areas of naturopathic practice. Some, but not all, licensing jurisdictions require a specific minimum number of didactic hours for the practice of these specialties. Currently, the following courses are offered as electives by the college:

NLP 712 Generative Medicine I
NLP 828 Generative Medicine II
NCE 821 IV Therapeutics

Grades earned by students are submitted to the Registrar utilizing the following designations. Grades earned are on a four (4)-point scale with an “A” or 4 quality points being the highest grade attained.

The cumulative quality point ratio (QPR) is determined by dividing the number of semester hours into the number of points earned. Transfer credits are not included in this computation. Clinic Grades are: Satisfactory (S) or Failure (F).

Refer to the UBCNM Student Handbook for policies regarding a grade of “F”.

Administrative Grades
In addition to the Academic Grades submitted by faculty, the following Administrative Grades are also utilized: I (Incomplete), TCR (Transfer Credit), and W (Withdrawal).

I: The grade of Incomplete (I) may be requested by a student and is used by the faculty, with the prior approval of the Associate Dean, to indicate that a student has not completed all course requirements for approved reasons. These include documented medical emergencies of the student or immediate family member.

To be eligible for an Incomplete, a student must have attended a minimum of 75% of the course hours. The faculty member and the Associate Dean may approve the student’s request for an Incomplete. Upon approval, the faculty member and Associate Dean will determine the time granted to complete the course requirements. Once the student has completed course requirements within the approved time frame, the faculty member will submit the earned grade. If the requirements are not completed within the approved time frame, the course grade will be converted from an “I” to an “F”.

Any student with a grade of “F” or “W” will not be eligible to register for courses for which that course is a prerequisite without approval by the Associate Dean of Academic Affairs.

TCR: Transfer credit granted for equivalent graduate work completed at another accredited institution.

W: Withdrawal grades are assigned on the following policy statements:

- If a student officially withdraws from a course during the official change-of-registration period, that course does not appear on the student’s transcript.
- If a student officially withdraws from a course after the end of the change-of-registration period, but before the end of the official withdrawal period, a grade of “W” is assigned and that course remains on the student’s transcript. Courses with a grade of “W” do not count toward the QPR.
- The names of students who have officially withdrawn from a course and receive the grade of “W” are so listed on the class roster for the balance of the semester.
- Any exceptions must be approved by the Associate Dean of Academic Affairs.

ATTENDANCE REQUIREMENTS
Each student is expected to attend all lectures and laboratories and other activities associated with the total completion of a given course. Certain courses are offered on evenings and weekends.

A detailed description of the attendance policy can be found in each course syllabus.

REQUIREMENTS FOR GRADUATION
In order to be eligible for graduation from UBCNM, candidates must:

1. Complete all requirements of the educational program with a minimum 2.50 cumulative grade point average.
2. Receive a recommendation for graduation by the UBCNM Faculty and Administration.
3. Fulfill financial obligations to the College and University Office of Financial Aid.
4. Complete, at a minimum, the last three semesters in residence at the UBCNM, by transfer and/or advanced-standing students.

All requirements for the doctoral degree must be completed within seven years from the first matriculation to graduation.

SATISFACTORY ACADEMIC PROGRESS
A student is considered to be meeting satisfactory academic progress by maintaining a QPR of 2.5 or greater with no outstanding grade of “F”. Good academic standing is achieved when a student maintains a GPA of 2.5, has met all financial responsibilities to the College, and is free of any breach of the standards governing ethical and clinical conduct.

Academic Probation, Remediation, and Dismissal

ACADEMIC PROBATION
Academic probation occurs when the student’s GPA or QPR falls below 2.50, or student has a grade of “F” in one or more courses. A student who is on Academic Probation is not in good academic standing, and may not be allowed to carry a full academic course load. In addition, a student on Academic Probation may not participate in the UBCNM clinic, outreach clinic sites, preceptorships, or any activities associated with clinical education.
A student on Academic Probation must meet with the Associate Dean of Academic Affairs to create a plan for successful completion of the program.

ACADEMIC DISMISSAL
A student, who, after one semester of Academic Probation, does not show substantial improvement in his or her academic performance, may be subject to dismissal from the program. Additionally, Academic Dismissal may occur if a student is placed on Academic Probation for a second time, for any reason. A student whose GPA falls below 2.0 at any time may be subject to dismissal from the program. Any student who is subject to dismissal may appeal to the Dean (see Appeals and Disciplinary Action).

NON-ACADEMIC DISMISSAL FROM THE COLLEGE
Naturopathic medical students are expected to demonstrate ethical and professional behavior at all times. The following incidents may be cause for dismissal from the program:

1. Failure to meet the generally accepted standards of professional conduct and clinical practice. Dismissal of this nature is subject to a review of a committee of peers, faculty and administration.
2. Pleading guilty or “no contest,” or being found guilty of any crime involving moral turpitude or being felonious in nature.
3. Repeated violation of public policy, or the demonstration of behavior that created safety hazards and/or disrupts the order of the institution.
4. Failure to meet financial obligations or commitments to the College.

See the College Student Handbook for a complete description of policies and procedures for Non-Academic Dismissal.

LEAVE OF ABSENCE AND WITHDRAWAL FROM THE PROGRAM
If a student requests a Leave of Absence from UBCNM, and is in good academic and financial standing with the College, s/he is eligible for readmission for up to one year from the date the leave begins. After one year, the Leave of Absence expires and the student must reapply for admission to the College through the Admissions Office.

A Medical Leave requires medical documentation from a physician that states that the student must take leave to recover from illness or injury. Before returning to the program the student must provide medical clearance that allows full participation in academic and clinical activities. After one year, the student must reapply for admission to the College through the University Admissions Office.

A student who withdraws from the University must reapply for admission to the College in order to be readmitted to the program. If a student fails to register for a semester without taking a Leave of Absence at any time before completion of the naturopathic program, s/he is considered to have withdrawn from the program.

If a student takes a leave one or more times from the program, the cumulative absences must not exceed three years.

A Leave of Absence or Withdrawal requires the student to complete all required paperwork from the University's Registrar's and Financial Aid Office.

READEMISSION TO THE PROGRAM
A student on Leave of Absence must notify the Dean, and reapply for admission through the University’s Admissions Office in writing that s/he is intending to return to the program at least one month before the beginning of the semester of anticipated return.

Minimum Requirements for Admission
The admission requirements for the Doctor of Naturopathic Medicine degree program at the University of Bridgeport are:

Candidates for admission to the naturopathic medical degree program must:

- Have a baccalaureate degree from an accredited, degree-granting institution.
- GPA of 3.0 or greater for both the overall and science-based prerequisites GPA.
- Completed the following prerequisite courses:
  - General Biology (with labs) 6 semester hours
  - General Chemistry (with labs) 6 semester hours
  - Organic Chemistry (with labs) 6 semester hours
  - General Physics (with lab) 3 semester hours
  - Communication/Language Skills 6 semester hours
  - Psychology 3 semester hours
  - Social Science/Humanities 15 semester hours

All courses must have been taken within the past seven years. The following courses are strongly recommended for entry into the naturopathic program: Biochemistry, Microbiology, Anatomy, Physiology, Genetics, Statistics, Botany, Developmental Psychology, Expository Writing and Medical Terminology.

Application Procedures and Admissions
The UBCNM is coeducational and does not discriminate against individuals on the basis of race, color, sex, sexual orientation, gender identity, religion, disability, age, genetic information, veteran status, marital status, ancestry, or national or ethnic origin.

Application for admission includes:
- Completed Application for Admission
- Application fee
- Official transcripts from each college attended
- Three letters of recommendation, one of which is from a health care professional
- A 500-750 word personal statement

Upon receipt of required documentation, the applicant may be invited for an interview with college representatives. A background check is required for all accepted students prior to matriculation.

Applications may be submitted at any time. Only advanced placement and/or transfer students may be accepted for the Spring term.

Among the qualities typical of most successful candidates for admission, the following are especially important:

1. Strong communication skills, both oral and written.
2. Passionate about naturopathic medical career.
3. Initiative and integrity.
College of Naturopathic Medicine

Required Skills and Abilities
Applicants to UBCNM must possess the intellectual, physical, and emotional means required to independently undertake the full curriculum, meet the levels of competency established by the faculty, and embark on a successful career in naturopathic medicine.

All candidates must be able to demonstrate and perform the following skills and abilities independently. Admitted students with specific needs have access to the Coordinator of Disability Service, who collaborates with administrative staff and faculty to provide reasonable accommodations for courses and examinations.

Observation: The candidate must be able to observe demonstrations and experiments in the basic sciences, and to observe a patient accurately at a distance and close at hand.

Communication: A candidate must be able to speak, to hear, and to observe patients in order to elicit information, describe changes in mood, activity, and posture, and perceive nonverbal communications. A candidate must be able to demonstrate effective and sensitive communication with patients, as well as effective and efficient oral and written English with all members of the health care team.

Motor: Candidates should have sufficient motor function to elicit information from patients by palpation, auscultation, percussion, and other diagnostic maneuvers. A candidate should be able to perform basic laboratory tests, re-position a patient, and conduct diagnostic and therapeutic procedures required for providing general patient care.

Intellectual-Conceptual, Integrative, and Quantitative Abilities: A candidate must demonstrate critical thinking, sound judgment, analysis, reasoning, and synthesis, essential to the problem-solving skills demanded of physicians. In addition, the candidate should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures.

Behavioral and Social Attributes: A candidate must possess the emotional maturity and stability required for full utilization of her/his intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive, and effective relationships with patients, instructors, and peers. A candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in the clinical problems of many patients. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that are assessed during the admissions and educational processes.

Adapted from American Association of Medical Colleges guidelines.

International Applicants
International applicants must complete an Application for International Students. Applicants who have done pre-professional study in foreign countries must submit official copies of course-by-course evaluated transcripts from a service (i.e., WES or ECE)... Any fees charged by such an agency are the responsibility of the student.

English as a Second Language
A candidate whose native language is not English will be required to demonstrate adequate proficiency in both oral and written English sufficient to succeed in the classroom and clinical settings.

- Official TOEFL exam results of 213 on the computer-based test or 550 on the paper-based test or 79 on the Internet-based test(iBT) score. www.ets.org/toefl
- TSE (test of spoken English) with a score of 50 or greater. (Only students with paper-based or computer-based TOEFL exam scores will be required to complete this test). www.ets.org.tse
- Official IELTS exam results of 6.5 or higher. www.ielts.org
- Completion of a baccalaureate degree taught in English from an accredited US college or university may replace other language proficiency requirements.

Admitted students whose first language is not English may also be required to take additional elective credits and/or training to improve their language skills.

Transfer Credit
Students wishing to transfer must provide the Admissions Committee with official transcripts from all undergraduate and graduate schools attended, as well as from the naturopathic, professional or graduate school from which they are transferring. Catalogs and syllabi may be requested as needed to review the materials. The Admission Committee may request a letter from the Dean of the College indicating the student is leaving in good academic standing. Note that all transfer students must meet the entry-level prerequisites for first semester students regardless of having been accepted to the institution from which they are transferring.

UBCNM may grant transfer credit for courses taken in accredited professional and graduate schools, with the following requirements:

1. Courses must have content equivalent to courses given at UBCNM, including laboratory work.
2. A course must have credits and hours equivalent to or greater than the same course at UBCNM.
3. Any course must have been passed with a grade of “B” or better (3.00 on a 4.00 scale.)

The original grade earned is not transferred and does not affect the student’s QPR at UBCNM.

Advanced Standing
Candidates for the College of Naturopathic Medicine who have a substantial amount of doctoral level health sciences credit may be eligible for advanced standing. This will generally be limited to allopathic, chiropractic, or osteopathic physicians, or to students transferring from the allopathic, chiropractic, naturopathic or osteopathic programs. Candidates for advanced standing must meet the same admission requirements as entering first year students, must have left their previous program in good academic standing, and must be in good standing in their profession (if applicable). The records of these candidates will be evaluated for transfer credit according to the guidelines listed above and a preliminary plan for completing the program will be presented at the time of acceptance.

Students accepted with advanced standing must complete all of the course requirements for the naturopathic medical degree, either through transfer, or completion of the cours-
es. Advanced standing students are required to be in residence at UBCNM for a minimum of three semesters, and complete the majority of clinical education requirements at the UBCNM. Each incoming advanced-standing students will be evaluated individually for transfer credit and course requirements.

Students with advanced standing are responsible for all UBCNM graduation requirements, including successful completion of NPLEX Part I.

**Computer Literacy**

A candidate for admission to the College should have access to a reliable computer and be proficient with computer use. The UBCNM Clinic utilizes an electronic medical record system, which requires all student clinicians and supervising physicians to document patient chart notes electronically.

**Cancellation of Admission or Registration**

The College reserves the right to cancel the admission or registration of individuals whose attendance at the College, in the opinion of the University administration, is not mutually beneficial to that person and to the institution. Applicants who gain admission to the College on the basis of incomplete or fraudulent credentials or misrepresentations in their application for admission may have their:

- Admission and registration cancelled without refund of any fees.
- Total credits rescinded that have been earned following such admissions.
- Future registration at the College prohibited.

Licensing and Professional Societies

Doctors of Naturopathic Medicine are presently licensed in 16 states: Alaska, Arizona, California, Connecticut, Colorado, Hawaii, Kansas, Maine, Minnesota, Montana, New Hampshire, Oregon, Utah, Vermont and Washington; in addition to the District of Columbia, the U.S. Territories of Puerto Rico and the U.S. Virgin Islands, and 5 Canadian Provinces. Graduates of accredited naturopathic colleges must pass both parts of NPLEX to be eligible for licensure.

For specific professional requirements for licensing, candidates should contact the appropriate licensing authority in the jurisdiction in which they wish to practice. Most states and provinces have a professional naturopathic association. The American Association of Naturopathic Physicians (AANP), found at www.naturopathic.org, is the national professional association for naturopathic medicine in the United States. The national professional association in Canada is the Canadian Association of Naturopathic Doctors (CAND), found at www.naturopathicassoc.ca).

**Information Subject to Change**

UBCNM provides the foregoing information for the purpose of providing students, applicants, and the public with information about the educational programs and policies of the College. This information does not constitute a contract. The College reserves the right to make changes in the program, policies, tuition, fees, schedules, and any other content at any time without prior notice.

**JOINT DEGREE PROGRAMS**

Joint degree programs in association with the College of Naturopathic Medicine have been established to allow students to pursue degrees in other areas while working toward the Doctor of Naturopathic Medicine degree. The joint degree programs are: ND/MS in Acupuncture; ND/MS in Nutrition.

**JOINT ND/MS ACUPUNCTURE 5-YEAR OUTLINE:**

**SEMESTER THREE**

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<td>511 TCM Philosophy</td>
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<td>APT</td>
<td>511 Point Location I</td>
<td>2</td>
</tr>
<tr>
<td>AMR</td>
<td>511 Tai Ji Chuan I</td>
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<td>APT</td>
<td>512 Meridian Theory</td>
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**SEMESTER FOUR**

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<tr>
<td>APT</td>
<td>523 Point Location II</td>
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<td>521 Clean Needle Technique</td>
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<tr>
<td>AHM</td>
<td>511 TCM Pharmacognosy</td>
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**SEMESTER FIVE**

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<td>AMR</td>
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**SEMESTER SIX**

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**SEMESTER SEVEN**

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<td>AMR</td>
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<td>621 Auricular Acupuncture</td>
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**SEMESTER EIGHT**

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<tr>
<td>AWB</td>
<td>521 TCM Bot Med I</td>
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<tr>
<td>ATD</td>
<td>711 East-West Path</td>
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**SUMMER SESSION**

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**SEMESTER NINE**

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<td>ACS</td>
<td>711 Preceptorship I</td>
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College of Naturopathic Medicine

SEMESTER TEN

ATD 715 TCM Internal Medicine 2
ACS 723 Clinic Internship III 8
ACS 722 Preceptorship II 2

JOINT ND/MS NUTRITION

Students who have completed the fifth semester of naturopathic studies with a 3.0 G.P.A. (QPR), and no outstanding grade of “F”, may be considered for recommendation by the Dean of the College of Naturopathic Medicine for entry into the Master’s program at an advanced level. They will enter the third semester of the Nutrition Program. They will be required to complete a total of 13 semester hours of nutrition courses (560F-560M) and WILL receive 3 credits from the Botanical Medicine courses taken in the Naturopathic Program. Required courses can be completed within the four years of study toward the naturopathic degree. Coursework in the Nutrition program will cost the student additional fees. For further details contact the University of Bridgeport, Nutrition Institute.

Students in the naturopathic medical degree program will be granted transfer credits for the following nutrition courses:

<table>
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<tr>
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<tbody>
<tr>
<td>560A</td>
<td>Pathophysiologic Basis of Metabolic Diseases</td>
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<tr>
<td>560B</td>
<td>Biochemistry of Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>560C</td>
<td>Vitamins and Minerals</td>
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<tr>
<td>560D</td>
<td>Clinical Biochemistry</td>
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<tr>
<td>560E*</td>
<td>Assessment of Nutritional Status</td>
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Total Nutrition Credits Granted 18

*Course is waived. Botanical Medicine taken in the ND Program will replace 560E

Required Nutrition Courses to complete the MS in Nutrition for Naturopathic students:

<table>
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<tr>
<th>NUMBER</th>
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<tr>
<td>560H</td>
<td>Developmental Nutrition</td>
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<tr>
<td>560F</td>
<td>Nutritional Therapeutics</td>
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<tr>
<td>560M</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>560J</td>
<td>Research in Nutrition</td>
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</table>

Total Nutrition Credits Granted 13
Fones School of Dental Hygiene

Dean: Dr. Marcia Lorentzen
Health Sciences Center
60 Lafayette Street
Telephone: (203) 576-4138
Fax: (203) 576-4220
E-mail: marcia@bridgeport.edu

Director of Clinical Education: Laura Greco
Health Sciences Center
Telephone: (203) 576-4838
E-mail: marcia@bridgeport.edu

Online Coordinator: Dr. Wendy Garcia
Health Sciences Center
Telephone: (203) 576-4141
E-mail: wendyg@bridgeport.edu

Faculty: Cianciola, Garcia, Greco, Kennedy, Lorentzen, Minihan-Anderson, Paulis, Risom, Stramoski, Williams

Degree Programs
Dental Hygiene (A.S., B.S., B.S. Degree Completion, M.S.D.H.)

Description
The Fones School of Dental Hygiene, established in 1949 at the University of Bridgeport, was named for Dr. Alfred Civilion Fones, the dentist who was instrumental in creating the profession of dental hygiene in 1913. Accredited since the American Dental Association publication of September, 1953, the Fones program is in full accord with the principles established by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Post-Secondary Accreditation and the United States Department of Education. The graduate is eligible for National, Regional, and State examinations in each of the fifty United States, and students earning the Associate's degree may apply their credits towards a Bachelor's degree.

Accreditation
The A.S., B.S., and M.S.D.H. degree programs in Dental Hygiene are both licensed and accredited by the State of Connecticut Office of Higher Education.

Qualifications for Admissions
The following physical qualifications are required for participation in the Associate degree program at the UB Fones School of Dental Hygiene. These qualifications are essential for the preparation of A.S Degree in Dental Hygiene. Students at the School must be able to perform at a high level of competency in all phases of classroom, clinic, and laboratory activities as they will ultimately use the knowledge attained as dental hygienists.

Applications for admittance to the A.S. and B.S. degree programs are received on individual merit. Applicants who show potential for the dental hygiene program, but do not meet criteria may be offered entrance into pre-dental hygiene. All admitted students are subject to a background check. This procedure is conducted by the outside agency Verified Credentials, Inc. All information is maintained confidentially.

The applicant student must process:
1. Critical thinking ability sufficient for judgment during clinical activities.
2. Communication abilities for effective interaction verbally and in written form with patients and other members of the health care team.
3. Coordination and use of both upper and lower limbs as required for, among other skills, the performance of dental hygiene clinical procedures and emergency skills such as cardiopulmonary resuscitation.
4. Manual dexterity necessary for performance in the various clinical, dental laboratory, and basic science laboratories without posing a threat to her/himself patients, or her/his fellow students' safety and well-being.
5. Hearing and visual abilities, appropriately assisted, acute enough to allow the individual recordation of patient histories, to provide routine safety instructions, and perform stethoscopic and other auscultatory examinations, and to read all forms of diagnostic imaging so that she/he can adequately interpret normal, abnormal, and pathologic changes.
6. Freedom from communicable diseases sufficient for rendering safe and effective dental hygiene care.
7. Ability to obtain a dental hygiene license as some states deny licenses for certain prior felony convictions.

Applicants with disabilities will neither be summarily denied admission, nor will higher scholastic requirements be demanded of them. All persons to be eligible for acceptance to the School must be capable of demonstrating upon request their ability to perform classroom, laboratory, and clinical assignments, including microscopic work, x-ray interpretation and techniques, or the equivalent, pass written, oral, and practical examinations and meet all of the requirements of the School as they evolve.

It is the responsibility of the applicant/student to assess compliance with these requirements. By submitting an application to the University of Bridgeport, Fones School of Dental Hygiene, the applicant is confirming their ability to meet qualifications for entrance into the Fones School of Dental Hygiene program.

General Criteria for the A.S. and the B.S. Degree in Dental Hygiene

The two year basic core curriculum of the Fones School combines courses from the College of Arts and Sciences and the Fones School of Dental Hygiene to provide a broad educational preparation. In addition to basic and dental science theory, the program provides education in preventive service and dental health education.

During the second year, the students receive clinical education at the Fones Dental Health Center on campus, and through assignments to the clinical and educational facilities of school dental health programs, hospitals and community agencies. These assignments are directly supervised by Fones faculty. Students are responsible for providing their own transportation to community agencies.

A student who earns a grade of C- or below in a course in the major field, must obtain a written statement from the School Director specifying the procedure necessary to remedy the deficiency and remain in the major.

Enrollment in the second year is contingent on completing all first year requirements and achieving a QPR of 2.0.

Education at the baccalaureate level enhances the dental hygienists' opportunities, abilities, background and values. The pro-
Fones School of Dental Hygiene

Professional dental hygiene curriculum is combined with a liberal arts education. Upon satisfactory completion of 122-125 credits in the areas of study specified, the student will be recommended for the degree of Bachelor of Science in Dental Hygiene.

Students in the Bachelor of Science degree (B.S.) may integrate the Bachelor's courses with the clinical aspect of the Dental Hygiene curriculum or pursue a Baccalaureate degree (B.S.) after completing clinical preparation at the Associate in Science Certificate Level. This Baccalaureate degree completion approach is available to Fones' students and graduates of a Dental Hygiene program that is accredited by a specialized accrediting agency recognized by the Council on Post Secondary Accreditation and the United States Department of Education.

All courses listed in the major program section of the catalog for the Associate in Science and/or Bachelor of Science degree are required for graduation. The majority of Dental Hygiene courses may be taken during the regular academic year.

Dental Hygiene Bachelor of Science Degree Online Program

The online B.S. in Dental Hygiene from The Fones School of Dental Hygiene at the University of Bridgeport offers an opportunity for dental hygienists to further their education beyond the A.S. degree. Dental hygienists traditionally begin their professional work following completion of the A.S. degree. The University of Bridgeport's B.S. in Dental Hygiene online degree program makes it possible for dental hygienists to work toward a degree at any time, from anywhere in the world. The program is perfectly suited to adult learners who have the discipline for part-time, self-directed study under the guidance of qualified faculty in their field. The BSDH Online Program is identical to the on-campus degree completion program and is designed to be completed entirely online.

Students who hold an A.S. or certificate in Dental Hygiene from an institution accredited by the American Dental Association Commission on Dental Accreditation are eligible for admission. A maximum of 73 credits from accredited two-year colleges and 90 credits from accredited four-year institutions. The program consists of 122 credit hours which include applicable transfer credits (60-90 credit hours), general education courses (40 credit hours), dental hygiene courses (24 credit hours), and elective courses (12 credit hours). The last 30 credit hours must be completed through the University of Bridgeport. The general education courses include University Core Requirements in English, Math, Fine Arts, Integrated Studies, Humanities, Natural Science, Social Science, and Capstone Seminar.

Students who are graduates of the Fones School of Dental Hygiene, need not re-apply for admission. A re-admittance form, available on the website, needs to be completed and forwarded to the Office of Distance Education.

Students may take 2 online courses per 8-week session, which is equivalent to 12 credits per semester. As a new online student, a one-week New Student Orientation course is offered prior to the start of each 8-week session at no charge. Financial aid is available for qualified students taking at least 6 credits per semester.

Please visit http://www.bridgeport.edu/academics/undergraduate/dentalhbs/options for additional information and an Application Form to download. You will be directed to request Official Transcripts from all schools attended – these are required in order to consider your acceptance into the program, as well as to evaluate courses taken previously and apply transfer credits to the course of study for the Bachelor's Degree in Dental Hygiene.

INSTRUCTIONAL FORMAT

The online B.S. in Dental Hygiene is offered in a format that makes classes available 24 hours and day, 7 days a week. Courses are designed for working professionals and can be completed entirely online, from home or at work. Our online instructors are practicing professionals or UB faculty members — experienced educators who are your partners in a dynamic and interactive educational environment. The online interaction is designed to encourage thoughtful and well-prepared discussions based on both students’ command of the coursework and their personal experiences.

To participate in UB’s distance education program, you must own or have regular access to a computer with an Internet connection and an e-mail account. You should be comfortable with using e-mail, sending and receiving attachments, and Web browsing.

MINIMUM COURSE REQUIREMENTS

- A PC or Macintosh system
- Windows 7 or newer, 10.6 and newer, Linux-Chrome 05
- Word processor, printer, CD-ROM
- Reliable Internet access, minimum 512kbps
- E-mail
- web camera and microphone

ONLINE ORIENTATION

All students participate in an online orientation prior to beginning the program. During the orientation, students are given instructions on how to navigate the Canvas course management system, strategies for being a successful online student, and access to other University resources, including the Wahlstrom Library’s electronic databases. Successful completion of the orientation is required of all new students in the online program.

PROGRAM REQUIREMENTS

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<td>DHRG 303 Advanced Clinical Concepts</td>
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<td>DHRG 305 Dental Hygiene Research I</td>
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<td>DHRG 306 Dental Hygiene Research II</td>
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<td>DHRG 315 Statistical Reasoning</td>
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<td>MKTG 305 Principles of Marketing</td>
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<td>HUM 100 Humanities Core</td>
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<td>FA 100 Fine Arts Core</td>
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<td>CAPS C390 Capstone Seminar</td>
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<td>Electives</td>
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</table>

for more information, see page 90
Fones School of Dental Hygiene

Dental Hygiene Master of Science Degree

Purpose and Objectives

The main purpose of the Master’s Degree in Dental Hygiene is to prepare registered dental hygienists for leadership roles in the areas of education, administration, public health and dental hygiene practice. This commitment is met within a multidisciplinary framework that inter-relates theory, research, and practical experience. The program seeks to educate its students to develop and conduct research that adds to the body of knowledge that advances the mission of dental hygiene. By providing a high level of professional education, the program will produce graduates with critical thinking and commitment to the service of others. Through academic courses, independent study, research and practical experience, graduate candidates are prepared to meet the present demand for dental hygiene leaders, practitioners, educators, oral health promoters, administrators/managers and researchers.

The objectives of the proposed Master’s degree program are to:

• Build a foundation for future doctoral education.

Through completion of the MSDH program, graduates will achieve the following outcomes:

• Utilize scientific inquiry, critical thinking, and research methodology in developing contemporary theory and best practice.

• Cultivate the incorporation of existing and emerging health informatics and technology within one profession.

• Contribute to and facilitate development of programs based on population need, diversity, and social and cultural sensitivity.

• Promote inter-professional collaboration within an integrated delivery system of health care.

• Forge the pathway toward expanding the professional landscape of dental hygiene.

• Instill the desire to pursue doctoral level education.

Admissions Policies

To qualify for admission, the applicant must possess a certificate or associate degree from an accredited dental hygiene program and a baccalaureate degree in dental hygiene or related field. The applicant must have an overall quality point average of at least 3.0 on a 4 point scale in undergraduate education. Dental Hygiene National Board Examination Score, completed recommendation forms from a previous clinical supervisor and dental hygiene program director, two recommendations from academic sources, a statement of career goals, and official transcripts of all college work must also be submitted.

Dental Hygiene Education: This specialization provides a theoretical and practical approach to instructional strategies and their application to dental hygiene education. Emphasis is on higher education, instructional technology, instructional development, implementation and evaluation, and the role and responsibilities of faculty within an accredited, professional program affected by internal and external constituencies.

Dental Public Health: This area of specialization provides a focused study of interdisciplinary oral healthcare in diverse community health settings. Emphasis is placed on the leadership roles of the dental hygienist in promoting health through the assessment of community oral health needs and the planning, implementing, and evaluating of population-based health programs.

Awarding of the degree is contingent on completion of the Dental Hygiene Capstone.

All admitted students are subject to a background check. This procedure is conducted by the outside agency Verified Credentials, Inc. All information is maintained confidentially.

Curriculum

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<td>DHYG 502  Evidence Based Research</td>
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<td>DHYG 507  Dental Health Services Administration</td>
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<td>DHYG 510  Foundations of Health Care Management</td>
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<td>DHYG 513  Seminar in Contemporary Dental Hygiene Issues</td>
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<td>DHYG 515  Statistical Reasoning</td>
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<td>DHYG 516  Concentrated Practicum</td>
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<td>DHYG 520  Dental Hygiene Capstone</td>
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And one of the following specializations:

**DENTAL HYGIENE EDUCATION**

| DHYG 503  Clinical and Didactic Educational Concepts | 3 |
| DHYG 504  Student Teaching in Dental Hygiene        | 3 |
| DHYG 508  Curriculum Development and Management      | 3 |

**DENTAL PUBLIC HEALTH**

| DHYG 509  Dental Public Health                      | 3 |
| DHYG 511  Epidemiology                              | 3 |
| NUTR 560H Developmental Nutrition                  | 3 |
Fones School of Dental Hygiene

SUGGESTED CURRICULUM SEQUENCE

FIRST YEAR

Summer:
DHYG 500  Leadership
DHYG 507  Dental Health Services Administration

Fall:
DHYG 502  Evidence-based Research
DHYG 510  Foundations of Healthcare Management

Spring:
DHYG 515  Statistical Reasoning
DHYG 508  Curriculum Development and Management (Education Track)
DHYG 509  Dental Public Health (Public Health Track)

SECOND YEAR

Summer:
DHYG 516  Concentrated Practicum
DHYG 503  Clinical and Didactic Educational Concepts (Education Track)
DHYG 511  Epidemiology (Public Health Track)

Fall:
DHYG 513  Seminar in Contemporary Dental Hygiene Issues
DHYG 504  Student Teaching in Dental Hygiene (Education Track)
NUTR 560H  Developmental Nutrition (Public Health Track)

Spring:
DHYG 501  Grant and Contract Writing
DHYG 520  Dental Hygiene Capstone

After completing the two years of course work the Master’s Degree Candidate will continuously register for DHYG 521 Dental Hygiene Capstone Extension (1 credit) until the thesis or professional project has been successfully written and defended. Upon successful completion of all course work, the masters student will then apply for graduation.

FOR MORE INFORMATION

Office of Admissions
Leanne Proctor
Director of Graduate Admissions
Telephone: (203) 576-4108
Email: lproctor@bridgeport.edu

Office of Distance Education
126 Park Avenue, Bridgeport, CT 06604
Phone: 1 (800) 470-7307
Email: ubonline@bridgeport.edu
Website: www.bridgeport.edu/academics/undergraduate/dentalbs/options
Nutrition Institute

**Director:** Dr. David M. Brady
Eleanor Dana Hall, Room 113
30 Hazel Street
Telephone: (203) 576-4667
Fax: (203) 576-4591
E-mail: nutrition@bridgeport.edu

**Assistant Director:** Karen Siclare, MS
Eleanor Dana Hall, Room 113A
Telephone: (203) 576-2379
E-mail: ksisclare@bridgeport.edu

**Program Coordinator:** Terri Roma
Eleanor Dana Hall, Room 113B
Telephone: (203) 576-4667
E-mail: terrir@bridgeport.edu

**Faculty:** Kendler

**Degree Program**
Human Nutrition (M.S.)

**Mission Statement**
The mission of the human nutrition program is to prepare graduates to positively influence and support specific health challenges and promote overall well-being by integrating biochemical and physiological science knowledge with evidence-based strategies that link to integrative and preventative nutrition-based interventions.

**Program Objectives**
The Human Nutrition Institute:

1. **Provides** access to a well-known, respected, comprehensive graduate degree program in nutrition by offering weekend and online programs that avoid interrupting work schedules
2. **Cultivates** awareness of nutritional science and clinical intervention practices that enhance student learning and advance the principles of the profession
3. **Fosters** collaborative relationships within the division of health sciences, university and community that provide opportunities to integrate the benefits of nutrition
4. **Supports** alumni with resources and opportunities for lifelong learning and career enhancement
5. **Facilitates** competency development through new innovations in curriculum delivery and expanded content

**Accreditation**
The Human Nutrition Program is licensed and accredited by the State of Connecticut Office of Higher Education.

**Learning Outcomes**
The UB Human Nutrition Institute graduates will:

1. Promote and support awareness of the benefits of optimal nutrition to health and overall well-being
2. Integrate biochemical and physiological science knowledge with nutritional evidence-based interventions and competent decision-making to prevent, positively influence and support various health challenges
3. Exhibit professional behavior that is ethical, collaborative, and culturally sensitive
4. Exhibit professional behavior that is ethical, collaborative, and culturally sensitive

**ADMISSIONS REQUIREMENTS**
Applicants should have a baccalaureate degree from an accredited college or university with a GPA of 3.0 or above and course work in human anatomy and physiology (6 credits minimum), introductory biochemistry (4 credits minimum), and basic nutrition (2 credit minimum). This coursework must be from a US Dept of Education regionally accredited college or university. If an applicant has completed a minimum of 8 credits of organic chemistry with laboratory, the biochemistry pre-requisite requirement may be waived at the discretion of the program director. Please note that transfer credit for the core pre-requisite courses listed above that have been taken longer than 10 years ago will only be accepted at the discretion of the program director. Acceptance will be determined by academic performance history and demonstration of application of course-specific content through continued professional or academic experience. Core pre-requisite classes taken longer than ten years previous to application will not automatically be transferable. The baccalaureate requirement may be waived for certain licensed health practitioners holding doctoral degrees from accredited professional programs. The deadline for an applicant to have a completed folder for guaranteed admissions consideration is:

- November 1st for January admission
- June 15th for September admission

A complete folder consists of a completed application, official transcripts from all colleges and universities attended, 2 letters of recommendation, and a detailed personal statement addressing why you are seeking this degree.

**Accelerated Entry into the Master’s Degree Program**

MDs, DCs, DOs, NDs, DDSs, etc. may qualify for advanced standing for several classes in the masters programs at the discretion of the program director following review of medical school transcripts. Advanced standing students will begin the program in either fall, spring or summer dependent upon their first required course.

**Registration Requirements**
Campus students are required to register with the Nutrition Institute on or before the first day of classes. Distance Learning students can register for courses through the distance learning website.

**Degree Requirements**
Degree candidates must complete the courses listed in the 41 credit curriculum with a minimum grade point average of 3.0 (B average). All students are required to pass a comprehensive examination at the completion of all coursework in order to graduate. All degree requirements are to be completed within a five year period from start date of their first masters course. A research project (thesis) is an elective option.
Nutrition Institute

Pre-Requisite Courses for Human Nutrition Program

Undergraduate course work is required in human anatomy and physiology (6 credits minimum), introductory biochemistry (4 credits minimum), and basic nutrition (2 credit minimum). The University offers the prerequisites, Anatomy and Physiology (6 cr, Nutr121) Introduction to Biochemistry (4 cr, Nutr122), and Basic Nutrition, (2 cr, Nutr123) twice annually both on-campus and on-line, commencing in April and August. A minimum grade of B is required in each pre-requisite course in order to receive credit for entry into the Master’s degree program.

Joint Programs

Joint programs with the UB Colleges of Chiropractic and Naturopathic Medicine have been established to allow students to pursue the M.S. degree in Human Nutrition while working on the D.C. or N.D. degree. Students who have completed the fifth semester of chiropractic or naturopathic studies, with a 3.0 GPA or above, may be recommended by their respective deans for entry into the Master’s program at an advanced level. UB also offers a joint campus program with the Acupuncture Institute.

Joint DC/MS Program

Students from the UB College of Chiropractic will enter the second semester of the Nutrition Program. They will be required to complete a total of 24 semester hours of required nutrition courses as specified in their admission letter.

Joint ND/MS Program

Students from the UB College of Naturopathic Medicine will enter the third semester of the Nutrition Program. They will be required to complete a total of 16 semester hours of required nutrition courses as specified in their admission letter.

Prerequisite Human Nutrition Curriculum

NUTR 121 Anatomy and Physiology 6
NUTR 122 Introduction to Organic and Biochemistry 4
NUTR 123 Nutrition Seminar 2

Master of Science Curriculum

NUTR 560A Pathophysiologic Basis of Metabolic Disease 4
NUTR 560B Biochemistry of Nutrition 4
NUTR 560C Vitamins and Minerals 3
NUTR 560E Nutrition Assessment 3
NUTR 560D Clinical Biochemistry 3
NUTR 560G Lifelong Healing with Food 4
NUTR 560H Developmental Nutrition 3
NUTR 560I Functional Medicine Nutrition 3
NUTR 560F Nutritional Therapeutics 4
NUTR 560M Evidence Based Nutrition 3
NUTR 560P Botanical Medicine 3
NUTR 560K Virtual Clinic 4

Elective Courses-non required except for dual degree students

NUTR 560L Nutrition and Exercise 3
NUTR 560T Nutrition and Autism 3
NUTR 560Q Nutrition and Cancer 3
NUTR 560J Research in Nutrition Project/Thesis 3

MS NUTRITION INSTITUTE

PROGRAM POLICY AND GUIDELINES 08-30-13

THE PROGRAM

The Human Nutrition Program at the University of Bridgeport is accessible to students with busy schedules. Classes are held online via the interactive Canvas system or via weekend only campus classes. The program is designed to be completed in 28 consecutive months if two classes are taken per cycle. Graduation is contingent upon completing the program and passing the comprehensive exam within 5 years from program start date. Students must remain in the program they enrolled in (online or on campus). UB does require some courses to be taken online by all students.

ATTENDANCE CAMPUS WEEKEND FORMAT

Each class period represents 20% of a four credit course or 25% of a three-credit course. Class attendance and participation are indispensable parts of the educational process that are required throughout the program. Since classes only meet 4 or 5 times, depending on whether the course is 3 or 4 credits, it is imperative that students attend class. In the event of absence due to illness or family emergency, please notify the Assistant Director and the instructor immediately. If more than one class is missed during the semester for either a 3 or 4 credit course you will receive a failing grade for the class and will have to repeat it. This includes absences for illness. Make-up examinations due to absence will not be permitted without an approved legitimate excuse with full documentation (see makeup policies) and will result in a grade of zero for that exam. Students are NOT PERMITTED to leave class prior to 5pm unless prior authorization is received from the Assistant Director and this would require the same guidelines for approval as an absence. Prior approval must be sought during normal administration business hours Monday – Friday. Those who leave class early without prior approval or subsequent documentation of illness or emergency that meet the guidelines specified under makeup policies below will be penalized with a 20% grade deduction on their course grade.

MAKE-UP POLICIES WEEKEND CAMPUS AND ONLINE FORMAT

Make-up examinations and assignments will not be permitted without a legitimate excuse or prior approval from the instructor and assistant director and will result in a grade of zero. An acceptable excuse for prolonged illness, or family emergency, entitling a student to a make-up examination, requires a legitimate detailed doctor’s note (with diagnosis) by a U.S. licensed physician or official documentation of family emergency, which must be submitted to the Program Assistant Director and approved. Please note that only one make-up examination is allowed per course regardless of instructor approval. Missed exams must be taken before the next scheduled examination and may be modified and made more difficult by the instructor. Make-ups will not be granted for reasons of personal convenience, such as traveling, weddings and vacations.

GRADING POLICY

Online exams are timed. Your syllabus should define for you the time limit on the
exam as well as when you log onto Canvas to complete it. Your are permitted to log onto the exam only ONCE and complete it in the required time frame. Students cannot log in and out of exams. Once submitted, the exam cannot be accessed again. Time limits set by the professors must be adhered to. Students who exceed the time limit on the exam, (this is reported to the instructor automatically) will receive a grading penalty equal to the percentage of excess time they took. For example, if an exam was scheduled for 60 minutes and the student took 66 minutes to complete it, they would have exceeded the exam time by 10%. Therefore their exam grade would be penalized 10% of the total possible points for the exam. If exam was 100 points, then 10% would equal a 10 point deduction. Repeated violations of exam time may result in further grading penalties and will be reported to the program assistant director for review.

FRAGRANCE FREE POLICY ON CAMPUS

Many individuals are sensitive to perfumes and other scents (such as scented oils, scented laundry soaps, scented deodorants, etc.) and have adverse health reactions upon exposure. In order to maintain an environment that is conducive to health and learning for all students and faculty members in the classroom, the Nutrition Institute has a “fragrance free” policy. The use of products that produce a noticeable odor and/or cause an adverse health reaction in other individuals is prohibited. The use of such fragrances while attending class will be considered as a Violation of the Rules of Conduct.

PLAGIARISM POLICY

Plagiarism is taken very seriously in the program. The UB policy on plagiarism can be found in the student handbook, Ch 2 at: http://www.bridgeport.edu/life/services/forstudents/key.aspx

Students are also highly encouraged to take the on-line tutorial in avoiding unintentional plagiarism at http://www.indiana.edu/~istd/

Please be advised that UB faculty have access to “Turn It In” software which scans electronically for plagiarism from any published source and your assignments and discussion board posting may be screened using this tool.

Ethics Statement of Confidentiality

Students enrolled in the program are expected to honor confidentiality as it pertains to student disclosure. Shared information, comments, or opinions expressed by another student or the faculty member during the course of classroom discussion should never be used in a manner which is intended to humiliate, embarrass, harass, damage, or otherwise injure other students in their personal, public, or business lives. In addition, confidentiality must be upheld by not disclosing any information that would identify any particular individual.

WITHDRAWAL FROM A COURSE

Withdrawal from a course should be made after consultation with the course professor and the Assistant Program Director. A request to withdraw from a course must be made in writing. Only an official withdrawal will result in a grade of W, instead of F, for the course and prorated refund of tuition based on published UB policy. A student who stops attending a course without withdrawing will earn a grade of “F” for the course and will be ineligible for tuition refund.

Withdrawal and Tuition Refund Schedule

All University fees are non-refundable.

NUTRITION ONLINE FORMAT AND ON CAMPUS FORMAT:

The percentages listed below are what is due to the University based on when the student withdraws from a course.

<table>
<thead>
<tr>
<th>Event</th>
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<tbody>
<tr>
<td>Before 1st Day of Class</td>
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<td>After 4th Session</td>
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Verbal notification will NOT be accepted as an official withdrawal from class. Written verification must be forward to the Nutrition Institute and also the University of Bridgeport, Registrar’s Office, 126 Park Avenue, Bridgeport, CT 06604. Withdrawals may also be completed online at www.bridgeport.edu/webadvisor.

FINANCIAL AID

The Human Nutrition Program is considered full-time for financial aid and loan deferment purposes. Subsidized and unsubsidized Federal Stafford Loans are available for qualified students who register for a minimum of six credits each semester. The Free Application for Federal Student Aid (FAFSA) and a University of Bridgeport Financial Aid Application must be completed. Many employers offer scholarships and/or tuition reimbursement programs. Contact the Financial Aid Office at (203) 576-4568 or sfs@bridgeport.edu for more information.

EVALUATION AND GRADING

The GPA is determined based on the following scale.

- A = 4.00, A- = 3.67, B+ = 3.33, B = 3.00
- B- = 2.67, C+ = 2.33, C = 2.00, C- = 1.67
- D+ = 1.33, D = 1.00, I = Incomplete
- W = Withdrawal, R = Research in progress.

Any course with a grade of C- or a numerical grade of 73 or less must be repeated to earn graduate credit. Other courses may be repeated if the student needs to raise the GPA. When a course is repeated, only the second grade will used to calculate the GPA. Tuition must be paid again for all classes that are required to be re-taken (no exceptions). Evaluation and grading are the responsibility and province of the professor. All students in a course will be graded consistently or equivalently. Students may be penalized for late or missed work. Questions regarding grades should be addressed to the course professor.

GRADE DISPUTES

A disputed grade may be appealed in writing as follows:

First Appeal: Directly to the instructor within 30 days of receipt of grade

Second Appeal: To Assistant Director of Nutrition Institute

Third Appeal: To Director of Nutrition Institute/Vice Provost of Health Sciences

Final Appeal: To the Provost
TRANSFER CREDITS
The Program Director, with the Dean’s approval, may allow up to six semester hours (eight hours in the case of laboratory courses) of graduate transfer credits from a regionally accredited college or university. The courses being considered for transfer must have been completed within the past seven years, with a grade of “B” or better, and be comparable to the University of Bridgeport’s graduate courses. Physicians (i.e.: medical, osteopathic, chiropractic, naturopathic, etc.) may request advanced standing for 560A and 560B. However, many choose to take 560B (Biochemistry) if they have not had the course in many years, as a review and preparation for course 560D (Clinical Biochemistry). Advanced transfer credit for physicians will only be granted for courses where a grade of “B” or better was achieved.

INCOMPLETE COURSEWORK
An “I” (Incomplete) designates incomplete work at the time of grading for reasons beyond the control of the student, fully documented, and corresponding to UB makeup policies as stated above, and determined to be bona-fide by the instructor and the Assistant Program Director. If approved by the assistant director and the instructor, incomplete coursework must be completed by the end of the semester immediately following the one in which the incomplete was granted. If the work has not been completed and no grade has been submitted as indicated, the grade automatically becomes F.

STUDENTS WHO ARE FAILING A COURSE ARE NOT PERMITTED TO TAKE AN INCOMPLETE AND REPEAT THE COURSE TO ATTAIN A NEW GRADE. A GRADE OF “F” WILL BE ISSUED AND THE COURSE WILL HAVE TO BE REPEATED BY RE-REGISTERING FOR THE COURSE.

GOOD ACADEMIC STANDING
Probation and Separation
Good academic standing is achieved when a student maintains a 3.0 GPA. If the GPA drops below 3.0, the student will be placed on academic probation. A student, who receives a second grade of “D” or “F” in any course, or is placed on probation in two different semesters, will be separated from the program. In cases of academic probation, the student should consult with the Program Assistant Director for advice and planning to raise the GPA. In cases of separation from the program, a student may make a written appeal to the Director within ten days of the notification of separation. If an appeal is granted, the student will remain on academic probation and his progress will be monitored periodically during the semester.

RESEARCH IN NUTRITION – COURSE 560J
The research project can be taken as an elective, and is not required, as part of the Human Nutrition Program. The project can be a literature-based study or an original research project. Students have one semester to complete the project before incurring a fee. If thesis completion exceeds the one semester limit, the student must maintain continuous matriculation by registering for ADMIN 600, each semester, until the thesis has been completed.

Graduation Requirements
The minimum number of credits required for graduation is 41; the minimum GPA required is 3.0. Students are expected to complete class work for the degree within five years of initial enrollment in the program.

Successful completion of ALL sections of the comprehensive competency examination is required for graduation. This examination and all required re-takes are given on-site on the UB campus on a Saturday (exact dates published several months prior to each examination) and will not be given by proctor at other sites or on alternate days of the week (no exceptions). If you cannot take examinations on a Saturday for any reason please consider the above policy before entering the program. Study guides and sample questions will be available to all students eligible to sit the examination by the distance learning department. Any sections that are not successfully completed must be re-taken on the UB campus at assigned dates. Only two attempts will be allowed without remediation, as assigned by the program director.
Physician Assistant Institute

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Faculty: D. Cervonka, S. Kunkel, C. McCann, J. Ralabate, M. Tsobiladze, M. Tafael, B. McCambley, P. Possenti, I. Broderson

The University of Bridgeport Physician Assistant Institute is committed to the development of highly qualified physician assistants who will serve as tomorrow’s leaders in the delivery of patient centered health care, educational and professional service. An understanding of the importance of integrated medicine and an appreciation of global health issues will be woven into all phases of our curriculum.

Degree
Master of Science: Physician Assistant

Accreditation
The University of Bridgeport Physician Assistant Institute Accreditation Continued status until 2020 by the Accreditation Review Committee for Physician Assistant Education. All students graduating from an accredited program are eligible to sit for the national certification examination.

Mission Statement
The mission of the University of Bridgeport Physician Assistant Institute is to develop clinicians with dedication to patients; commitment to life-long education; respect for the profession; a global perspective on health care; volunteerism as a professional core value and an integrative approach to practice for the benefit of all patients. This mission to educate the physician assistant is reflected in our motto: Adiuvare, Mederi, Communiter; TO HELP, TO HEAL, TOGETHER.

Program Objectives
In the design of the curriculum and clinical experiences it is the goal of the Physician Assistant Institute:

To develop self motivated and high quality graduates committed to self discovery and self assessment through the application and evaluation of clinical practice obtained through critical evaluation of the medical literature.

To develop highly competent Physician Assistants evidenced by the ability to transfer knowledge from the classroom and clerkship experience to graduate clinical performance through:

- Successfully passing the National Certifying examination
- Acquisition and application of the basic and clinical sciences
- Understanding the diversity amongst patients, ideas, perceptions of care, and culture while respecting the values associated with their ethnicity, sexual orientation and background.
- Developing an appreciation for patient preferences and the diversity of the treatments and healers they seek.
- The ability to implement effective communication skills to colleagues, patients and families they encounter to improve patient care and outcome.

To develop a solid professional value system, committed to life-long learning, professional development and advocacy for the profession.

It is the intention of the University of Bridgeport, Faculty of Health Science and the Physician Assistant Institute to endeavor to communicate these goals through our teaching, role modeling and clinical practice.
Physician Assistant Institute

Competencies for the Physician Assistant Profession

Preamble
In 2003, the National Commission on Certification of Physician Assistants (NCCPA) initiated an effort to define PA competencies in response to similar efforts being conducted within other health care professions and growing demand for accountability and assessment in clinical practice. The following year, representatives from three other national PA organizations, each bringing a unique perspective and valuable insights, joined NCCPA in that effort. Those organizations were the Accreditation Review Commission for Education of the Physician Assistant (ARC-PA), the body that accredits PA educational programs; the Association of Physician Assistant Programs (APAP), the membership association for PA educators and program directors; and the American Academy of Physician Assistants (AAPA), the only national membership association representing all PAs. The resultant document, Competencies for the Physician Assistant Profession, is a foundation from which each of those four organizations, other physician assistant organizations and individual physician assistants themselves can chart a course for advancing the competencies of the PA profession.

Introduction
The purpose of this document is to communicate to the PA profession and the public a set of competencies that all physician assistants regardless of specialty or setting are expected to acquire and maintain throughout their careers. This document serves as a map for the individual PA, the physician-PA team and organizations that are committed to promoting the development and maintenance of these professional competencies among physician assistants. The clinical role of PAs includes primary and specialty care in medical and surgical practice settings. Professional competencies for physician assistants include the effective and appropriate application of medical knowledge, interpersonal and communication skills, patient care, professionalism, practice-based learning and improvement, systems-based practice, as well as an unwavering commitment to continual learning, professional growth and the physician-PA team, for the benefit of patients and the larger community being served. These competencies demonstrate the effectiveness of a practice, whether medical or surgical, for each individual physician assistant and as that scope is defined by the supervising physician and appropriate to the practice setting.

In 1999, the Accreditation Council for Graduation Medical Education (ACGME) endorsed a list of general competencies for medical residents. NCCPA’s Eligibility Committee, with substantial input from representatives of AAPA, APAP and ARC-PA, has modified the ACGME’s list for physician assistant practice, drawing from several other resources, including the work of Drs. Epstein and Hunder; research conducted by AAPA’s EVP/CEO, Dr. Steve Crane; and NCCPA’s own examination content blueprint.

The PA profession defines the specific knowledge, skills, and attitudes required and provides educational experiences as needed in order for physician assistants to acquire and demonstrate these competencies.

MEDICAL KNOWLEDGE
Medical knowledge includes an understanding of pathophysiology, patient presentation, differential diagnosis, patient management, surgical principles, health promotion and disease prevention. Physician assistants must demonstrate core knowledge about established and evolving biomedical and clinical sciences and the application of this knowledge to patient care in their area of practice. In addition, physician assistants are expected to demonstrate an investigatory and analytic thinking approach to clinical situations. Physician assistants are expected to:

• identify the appropriate site of care for presenting conditions, including cases and those requiring referral or admission
• identify appropriate interventions for prevention of conditions
• identify the appropriate methods to detect conditions in an asymptomatic individual
• differentiate between the normal and the abnormal in anatomic, physiological, laboratory findings and other diagnostic data
• appropriately use history and physical findings and diagnostic studies to formulate a differential diagnosis
• provide appropriate care to patients with chronic conditions

INTERPERSONAL & COMMUNICATION SKILLS
Interpersonal and communication skills encompass verbal, nonverbal and written exchange of information. Physician assistants must demonstrate interpersonal and communication skills that result in effective information exchange with patients, their patients’ families, physicians, professional associates, and the health care system. Physician assistants are expected to:

• create and sustain a therapeutic and ethically sound relationship with patients
• use effective listening, nonverbal, explanatory, questioning, and writing skills to elicit and provide information
• appropriately adapt communication style and messages to the context of the individual patient interaction
• work effectively with physicians and other health care professionals as a member or leader of a health care team or other professional group
• apply an understanding of human behavior
• demonstrate emotional resilience and stability, adaptability, flexibility and tolerance of ambiguity and anxiety
• accurately and adequately document and record information regarding the care process for medical, legal, quality and financial purposes

PATIENT CARE
Patient care includes age-appropriate assessment, evaluation and management. Physi-
Physician assistants must demonstrate care that is effective, patient-centered, timely, efficient and equitable for the treatment of health problems and the promotion of wellness. Physician assistants are expected to:

- work effectively with physicians and other health care professionals to provide patient-centered care
- demonstrate caring and respectful behaviors when interacting with patients and their families
- gather essential and accurate information about their patients
- make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- develop and carry out patient management plans
- counsel and educate patients and their families
- competently perform medical and surgical procedures considered essential in the area of practice
- provide health care services and education aimed at preventing health problems or maintaining health

PROFESSIONALISM

Professionalism is the expression of positive values and ideals as care is delivered. Foremost, it involves prioritizing the interests of those being served above one’s own. Physician assistants must know their professional and personal limitations. Professionalism also requires that PAs practice without impairment from substance abuse, cognitive deficiency or mental illness. Physician assistants must demonstrate a high level of responsibility, ethical practice, sensitivity to a diverse patient population and adherence to legal and regulatory requirements. Physician assistants are expected to demonstrate:

- understanding of legal and regulatory requirements, as well as the appropriate role of the physician assistant
- professional relationships with physician supervisors and other health care providers
- respect, compassion, and integrity
- responsiveness to the needs of patients and society
- accountability to patients, society, and the profession
- commitment to excellence and on-going professional development
- commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- sensitivity and responsiveness to patients’ culture, age, gender, and disabilities
- self-reflection, critical curiosity and initiative

PRACTICE-BASED LEARNING AND IMPROVEMENT

Practice-based learning and improvement includes the processes through which clinicians engage in critical analysis of their own practice experience, medical literature and other information resources for the purpose of self-improvement. Physician assistants must be able to assess, evaluate and improve their patient care practices. Physician assistants are expected to:

- analyze practice experience and perform practice-based improvement activities using a systematic methodology in concert with other members of the health care delivery team
- locate, appraise, and integrate evidence from scientific studies related to their patients’ health problems
- obtain and apply information about their own population of patients and the larger population from which their patients are drawn
- apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- apply information technology to manage information, access on-line medical information, and support their own education
- facilitate the learning of students and/or other health care professionals
- recognize and appropriately address gender, cultural, cognitive, emotional and other biases; gaps in medical knowledge; and physical limitations in themselves and others

SYSTEMS-BASED PRACTICE

Systems-based practice encompasses the societal, organizational and economic environments in which health care is delivered. Physician assistants must demonstrate an awareness of and responsiveness to the larger system of health care to provide patient care that is of optimal value. PAs should work to improve the larger health care system of which their practices are a part. Physician assistants are expected to:

- use information technology to support patient care decisions and patient education
- effectively interact with different types of medical practice and delivery systems
- understand the funding sources and payment systems that provide coverage for patient care
- practice cost-effective health care and resource allocation that does not compromise quality of care
- advocate for quality patient care and assist patients in dealing with system complexities
- partner with supervising physicians, health care managers and other health care providers to assess, coordinate, and improve the delivery of health care and patient outcomes
- accept responsibility for promoting a safe environment for patient care and recognizing and correcting systems-based factors that negatively impact patient care
- apply medical information and clinical data systems to provide more effective, efficient patient care
- use the systems responsible for the appropriate payment of services
### Semester Based Curriculum

#### TERM I

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**Term Total Credits:** 27

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<td>MSPA 64</td>
<td>Medical Seminar</td>
<td>2</td>
</tr>
<tr>
<td>MSPA 69</td>
<td>Capstone Project</td>
<td>2</td>
</tr>
</tbody>
</table>

**Term Total Credits:** 12

*CORE SUPERVISED CLINICAL CLERKSHIPS

All students are required to complete all of the seven core supervised clinical clerkships. The clinical clerkship sequence will be individually assigned to students by the Director of Clinical Education.

**Emergency Medicine** - The Emergency Medicine clerkship gives the physician assistant student direct involvement and experience in a hospital Emergency Department setting. This will provide the student with practical clinical experience in the diagnosis, evaluation, and management of a wide range of emergent medical, orthopedic, traumatic, and surgical conditions. Students will participate in the care of pediatric and adult patients in all triage acuity classifications. This experience consists of a six week supervised clinical experience in an affiliated hospital emergency department designed to further develop the concepts of diagnosis and management acquired during the pre-clinical course-work and to develop decision-making and cognitive skills related to patient care in an emergency room. This course will also provide the student a chance to develop additional clinical psychomotor skills by performing routine basic procedures in a supervised setting. By the completion of the rotation, the student will have gained an appreciation for the delivery of emergency medical care as well as an understanding of the role of the PA in the Emergency Department setting.

**Family Medicine** - This six week clinical clerkship is designed to expose the student to a variety of common ambulatory care situations. Settings vary, but experiences are centered around primary care, general medicine, and family practice. Students are responsible for eliciting chief complaints, gathering pertinent historical data, and performing relevant physical examinations. Students are also expected to develop problem lists, diagnostic impressions and therapeutic plans. These are to be presented to the preceptor in an organized, thoughtful manner. Students are expected to attend conferences on primary care problems when offered and participate in other assigned activities.

**Internal Medicine** - This 6 week clerkship is designed to provide an opportunity for the student to build on previous didactic experience and begin to develop competence in clinical medicine. The student is exposed to patients with a wide group of acute and chronic medical conditions. This clerkship will emphasize skills in gathering historical data, examination of patients, and provide the opportunity to perform a variety of diagnostic and therapeutic procedures. Students will interpret laboratory, EKG, and a variety of radiology studies. Students will formulate treatment plans; participate in discharge planning and patient education.

**Obstetrics and Gynecology** - This six week clerkship is designed to provide the student with exposure to common prenatal and gynecological problems. Hospital and clinic settings offer the student a wide range of outpatient and/or inpatient experience. The student will become confident with the routine gynecological evaluation and patient education. The student may have the opportunity to participate in labor and delivery. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, follow up care and the provision of health education and counseling.

**Pediatrics** - This six week clerkship is designed to provide the student with exposure to common ambulatory care situations. Settings vary, but experiences are centered around primary care, general medicine, and family practice. Students are responsible for eliciting chief complaints, gathering pertinent historical data, and performing relevant physical examinations. Students are also expected to develop problem lists, diagnostic impressions and therapeutic plans. These are to be presented to the preceptor in an organized, thoughtful manner. Students are expected to attend conferences on primary care problems when offered and participate in other assigned activities.
volved on the pediatric inpatient setting also. 

Psychiatry/Behavioral Medicine - This six week clerkship provides students experience in working with patients who have psychiatric, behavioral or substance abuse problems. Emphasis is placed on the recognition and management of these problems. The student will learn how to do a mental status exam and medically assess the patient to screen for non psychiatric causes of the patient’s clinical presentation. The student will be involved in treating patients with psychiatric as well as co-occurring disorders with alcohol, benzodiazepine or opiate dependence.

Surgery - This is a six week clerkship on an inpatient surgical service with hospital operating room experiences. The student is exposed to the concepts and principles which characterize the practice of medicine in general surgery, while participating in the pre- and post-operative evaluation and care of surgical patients. The role of the physician assistant student on the general surgical service includes performing the admission history and physical examination, monitoring and recording patient progress on daily rounds, performing and/or assisting with diagnostic and therapeutic procedures, assisting the surgeon in the operating room; participating in the post-operative care and management of patients, in addition to providing patient/family education and support.

GRADING
The Physician Assistant Institute letter grade system for courses is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>B+</td>
<td>3.50</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>C+</td>
<td>2.50</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>D</td>
<td>1.00 — Considered Failing</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
<tr>
<td>P/F</td>
<td>Courses in this grading category are not calculated in the GPA</td>
</tr>
<tr>
<td>I</td>
<td>For Incomplete coursework</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal from Course</td>
</tr>
</tbody>
</table>

Clerkship grades will use the same scale as the didactic courses.

Administrative Grades

1. The grade of Incomplete “I”, is used by the faculty to indicate that a student has not completed all course requirements. A student will have one week from the last day of the term to meet with the faculty and complete all course requirements. Upon completion of the course requirements the faculty will submit the earned grade. Failure by the student to meet with the faculty and complete the requirements in one week from the last day of the term will result in the grade of “I” being converted to a grade of “F.”

2. Any student with a grade of “F” or “W” will be required to register and retake that course in its entirety when the course is regularly scheduled. Any student with a grade of “F” or “W” will not be eligible to register for courses for which that course is a prerequisite. Withdrawal grades are assigned based on the following policy statements:

   1. If the student officially withdraws from a course during the official change-of-registration period, that course does not appear on the student’s transcript. Courses with a grade of “W” do not count toward the QPR and do not count toward “hours attempted.”

   2. If a student officially withdraws from a course after the end of the change-of-registration period, but before the end of the official withdrawal period, a grade of “W” is assigned and that course remains on the student’s transcript. Courses with a grade of “W” do not count toward the QPR.

3. The names of students who have officially withdrawn from a course and receive the grade of “W” are so listed on the class roster for the balance of the semester.

4. Any exceptions to the above, including late withdrawals, must be approved by the Director and the Vice Provost for Health Sciences before they become official and are recorded. Poor academic performance does not constitute a valid reason for late withdrawal.

Since courses in the Physician Assistant Program are sequential a withdrawal would prohibit the student from continuing.

Academic policies

Academic policies used to manage and direct the academic program are:

1. Attendance Requirements
2. Requirements for Graduation
3. Good Academic Standing
4. Academic Warning, Probation and Dismissal
5. Dismissal from the College
   (Non-Academic)
6. Withdrawal from the Program
7. Readmission to the Program

DIDACTIC APPEALS PROCESS

A student may appeal a grade, first to the instructor and then to the Director of Academic Affairs and finally the Director. If after appeal to the Director, a student remains unsatisfied, then an appeal may be presented to the Progress and Promotions committee. In this latter instance, the appeal must be based on substantive academic grounds.

Clinical Clerkship Appeals Process: A student may appeal a grade, first to the Director of Clinical Education and finally the Director. If after appeal to the Director, a student remains unsatisfied, then an appeal may be presented to the Progress and Promotions committee. In this latter instance, the appeal must be based on substantive academic grounds.

ATTENDANCE REQUIREMENTS

In the Physician Assistant Program, it is expected that all students will assume responsibility for meeting all academic and clinical obligations with punctuality. Student attendance is expected in all classes and represents a component of professionalism. Students remain responsible for all of the work in the courses in which they are registered.

Students must arrive at all educational and clinical sessions with the necessary lab instruments, texts, attire, and other materials as designated by the instructor, or may otherwise be excluded from participation in the activity. Students not properly prepared for competencies will not be evaluated. Make up competencies for lack of preparation will not be offered.

Acceptance into the Physician Assistant Institute at the University of Bridgeport requires
a full-time commitment. It is an intense and rigorous program that is demanding. The program strongly discourages students from holding an outside job during the didactic and clinical years.

**Academic Progress**

**STUDENT STATUS IN GOOD STANDING**

To maintain full graduate status, the student must achieve a minimum GPA of 3.00 (based on 4.000) in his or her graduate study. Students whose GPA drops below a 3.00 while in the program will be placed on academic probation.

**SATISFACTORY ACADEMIC PROGRESS**

Students enrolled in the Physician Assistant Institute Master of Science degree program are in good academic standing and are making satisfactory academic progress; if they have successfully achieved the following criteria upon completion of their most recent semester of course work:

1. Did not receive a grade of “F or D” in any course, and
2. Maintain a cumulative grade point average of 3.0 or better.

A student who has not achieved the above criteria is not making satisfactory academic progress will be evaluated by the Director and the Progress and Promotion committee and will be required to follow the criteria as outlined in the catalog regarding Academic Probation and Dismissal.

**PROGRESS AND PROMOTIONS**

Each student will be presented by the faculty to the progress and promotions committee. The committee meets toward the end of the didactic period and once again prior to graduation. The committee is charged with the responsibility to assure that students are maintaining progress. If a student is not progressing as expected the committee may make recommendations for remediation or dismissal.

**ACADEMIC ADVISING**

Students will be assigned an academic advisor upon admission to the program. Students will meet with their advisor at least once per term to discuss progress and any problems they may be experiencing.

**REMEDINATION**

Student progress will be monitored with enough frequency to ensure that deficiencies in students’ knowledge, skills and professionalism are identified in a timely fashion. Once identified, students with deficiencies will be required to enter the program’s remediation process. Students will meet with course directors and their faculty advisors to identify the nature and underlying causes of the problems. Opportunities for remediation will be identified and the program will work with students to their fullest ability. Remedial actions may include referral for tutoring, time management, study skills enhancement, test taking strategies, and/or personal counseling. Faculty advisors will meet regularly with students for documentation and follow-up. For further details please refer to the full policy in Appendix A of the Physician Assistant Institute student handbook.

**ACADEMIC PROBATION**

Graduate students must have a 3.000 cumulative GPA to be eligible to graduate. Graduate students whose cumulative GPA falls below a 3.000 will be placed on academic probation and will receive written notification of this status. At this point it is the student’s responsibility to meet with his or her advisor. In order to be removed from academic probation, the student will need to achieve a cumulative GPA of 3.000 within his or her next term of study. Failure to do so may subject the student to immediate dismissal from the program at the discretion of the Program Director.

**PROGRAM WITHDRAWAL**

Any student wishing to withdraw from the PA program must submit this in writing to the Program Director detailing the reason for withdrawal and expected plans if any, to return. A student who withdraws in “good standing” academically, will be allowed to reapply to the program after an interview with the program administration without going through the full admissions process. An exit interview with the Program Director will be required. A student in this category will be required to interview once again with program administration before readmission is approved.

Students who are withdrawing due to issues of an academic nature will be required to exit interview with Program Director and the Director of Academic Affairs to delineate a plan, detailing requirements for readmission. A student in this category will be required to interview once again with program administration before readmission is approved.

**DISMISSAL**

At any time a student can be dismissed from the program for academic or professional behavioral reasons. Any student in jeopardy of dismissal from the program will be notified in writing and have the option to respond. If necessary, an AD HOC Progress and Promotions committee will be convened and the issue presented. All recommendations of the committee will be presented to the Program Director for final action.

**DISMISSAL FROM THE COLLEGE**

Academic inadequacies are not the only reasons for dismissal from the College. The following is a list of additional causes for dismissal:

1. Failure to meet the generally accepted standards of ethical conduct and clinical practice. Dismissal of this nature is subject to review by a committee of peers, faculty and administration.
2. Pleading guilty or “nolo contendere,” or being found guilty of any crime involving moral turpitude or being felonious in nature.
3. Repeated violation of public policy, or the demonstration of behavior that creates safety hazards and/or disrupts the order of the institution. Dismissal of this nature is subject to review by a committee of peers, faculty and administration.
4. Failure to meet financial obligations or commitments to the College.

**GRADUATION REQUIREMENTS**

Candidates for the degree of Master of Science from the Physician Assistant Institute must, in addition to completing all course and other degree requirements, have a minimum GPA of 3.00 and receive a C or higher in all courses. Each Student must successfully complete the summative evaluation prior to graduation. Each student must complete and submit the graduate research requirement. No student will be graduated who has not completed the above outlines require-
emments and resolved all financial obligations with the University.

Admissions Requirements

- Bachelor's degree from an accredited institution
- Cumulative GPA of 3.0 or higher preferred
- Required coursework:
  - Taken within the last ten years with a grade of 'C' or better from an accredited school.
  - General Biology I with lab
  - Anatomy and Physiology I and II with labs
  - 2 semesters of Chemistry with labs
  - 1 semester of English
  - 1 semester of Psychology
  - 1 semester of Statistics
- Minimum of 500 hours of direct patient care experience
- Recommended coursework:
  - Microbiology with lab
  - Genetics with lab
  - Biochemistry with lab
- Minimum of 500 hours of direct patient care experience

Required Materials CASPA

- Application completed through CASPA
  - https://portal.caspaonline.org/
- Official transcripts from all schools attended
- Three letters of recommendation
  - One must be from a healthcare provider and another from the supervisor of the clinical experience. The third can be a professor, employer, or another individual who has known you on a professional level for a year or more.

*All transcripts and letters of recommendation must be sent directly to CASPA. These materials will not be accepted by the University of Bridgeport.

Required Supplemental Essay

Please send to paadmit@bridgeport.edu.

- University of Bridgeport Essay – 500 words sent directly to the University of Bridgeport addressing:
  - Why have you chosen to apply to the University of Bridgeport?
  - What aspects of our program or curriculum resonate with you and why?
  - How would the University of Bridgeport's program help you reach your career goals?

*Applicants must complete the Healthcare Experience section on the CASPA application to document the 500+ hours of patient care experience. Please note applications are not considered complete until the supplemental essay has been processed by the University of Bridgeport. Application completed through CASPA-Deadline is August 1.

Application Procedures

DOMESTIC APPLICANTS

Domestic applicants must include:

1. A properly completed application for admission
2. A NON-REFUNDABLE application fee of $40*
3. Official transcripts of all college records
4. Statement of Purpose (500-750 words) addressing your desire for medicine as a career and your perception of your role as a Physician Assistant.
5. Three letters of recommendation of which one should be from:
   a) A Physician, Physician Assistant, Nurse Practitioner or Clinical Supervisor.
   b) A supervisor speaking to your required healthcare experience.
   c) General letter of recommendation attesting to character.
6. A completed application and supporting documents must be sent to the Office of Admissions by August 15. Applications are reviewed as they become complete and interviews are offered to the most qualified applicants.

INTERNATIONAL APPLICANTS

International applicants must complete an application for international students as well as an application to the Physician Assistant program. Applicants who have engaged in pre-professional study in foreign countries must submit official copies of all records, as well as certified translations if the original records are not in English. All transcripts/mark-sheets must be evaluated by a recognized credential evaluation organization, such as World Education Services (WES). Fees charged by such an agency are the responsibility of the student. Additionally, graduation from a physician assistant program does not guarantee employment in the United States or abroad. Please check with your education advisor prior to application to the program.

All non-native English language speakers must demonstrate English language competency at a level appropriate for advanced scientific study. At a minimum, proficiency can be demonstrated in one of the ways listed below:

1. Minimum score of 80 from the Test of English as a Foreign Language (TOEFL) or the Test of Spoken English (TSE), taken within the past two years. Information on the TOEFL/TSE can be obtained from TOEFL, P.O. Box 6151, Princeton, NJ 08541-6151, U.S.A. or www.ets.org.
2. Receipt of a grade of “B” or better in one semester of English at an accredited U.S. college or university.
3. Successful completion of intensive English Language study at the UB's English Language Institute.

Technical Standards

University of Bridgeport
Physician Assistant Institute

Technical Standards

Completion of a degree at the University of Bridgeport signifies the graduate is prepared for practice in their prospective field by meeting the technical standard requirements. Technical standards, as distinguished from academic standards, refer to the physical, cognitive, and behavioral abilities required for satisfactory completion of curriculum. The essential required abilities include
motor, sensory, communicative, intellectual, behavioral and social criteria. These standards are required by ARC-PA (A3.07) and are common to all programs. All candidates must possess the necessary intellectual ability and skills in observation, communication, motor, and behavior to enter and successfully complete the program. (Adopted from: The Report of the Special Advisory Panel, on Technical Standards for Medical School Admissions, AAMC 1979; Key Foundations for Developing Educationally Effective and Legally Sound Access and Diversity Policies AAMC Professional Development Conference for Medical School Admissions Officers June 22, 2007.)

**Observation**
- Candidates must be able to observe visual presentations in the classroom and laboratory and at the patient bedside.
- Candidates must be able to observe patients closely and at a distance to observe the patient's condition and complete a patient exam.
- Candidates must be able to immediately comprehend and respond to auditory instructions or requests.

**Communication**
- Candidates must be able to speak, hear and observe patients to obtain pertinent information.
- Candidates must be able to communicate in a clear and effective manner with patients and their families both orally and in writing, using appropriate grammar, spelling, and vocabulary.
- Candidates must possess the skills of sensitivity and confidentiality in patient communication. They must abide by the HIPAA policy.
- Candidates must be able to communicate with the health care team effectively and efficiently.

**Motor Skills**
- Candidates must be able to elicit information on patient exam by palpation, auscultation, and percussion as well as carry out diagnostic maneuvers.
- Candidates must be able to examine and treat patients with coordination of muscular movements, equilibrium, and sensation.
- Candidates must be able to manipulate equipment and instruments for basic laboratory tests and procedures such as airway management, suturing, needle placement & IV, stethoscope & ophthalmoscope, tongue blades, gynecologic speculum and scalpel.
- Candidates must be able to transport themselves from room to room and location to location in an efficient manner to see patients.
- Candidates must have the physical stamina to complete both the didactic and clinical portions of the training program which includes sitting, standing, and moving from classroom to laboratory to hospital.

**Intellectual Ability**
- Candidates must possess problem solving ability, a skill demanded of physician assistants.
- Candidates must be able to collect, measure, organize, prioritize, analyze and assimilate data in a limited time frame. Information presented in lecture must be successfully applied in the clinical setting by the candidate.
- Candidates must be able to read and understand the medical literature and use this knowledge in problem solving and patient care.
- Candidates must be able to interpret x-rays and EKG readings.

**Behavior**
- Candidates must be able to use their intellectual ability and exercise good judgment in completing their responsibilities for the diagnosis and treatment of patients.
- Candidates must have the capacity to respond to emergencies in a calm and reasoned manner.
- Candidates must be able to develop rapport with patients and their families and their colleagues.
- Candidates must be able to handle the physical, mental and emotional stress while functioning effectively.
- Candidates must demonstrate compassion, motivation, integrity, flexibility and a consciousness of social values.
- Candidates must be able to interact with a diverse population.

**Selection of Candidates**

The University of Bridgeport Physician Assistant Institute is coeducational and does not discriminate against any applicant on the basis of gender, race, religious orientation, sexual orientation or national origin. (Title VI, Civil Rights Act 1964)

All eligible finalists are invited for a personal interview before any action is taken upon their application. Among the qualities typical of most successful candidates for admission, the following are especially important:

1. Superior communication skills, both oral and written.
2. Evidence of strong motivation to become a Physician Assistant.
3. Initiative and honesty as evidenced in the candidates’ transactions within the application process and in all information submitted in support of the application.
4. Academic achievement and motivation toward the curriculum offered at the Institute.

**NOTIFICATION OF ACCEPTANCE**

Applicants will be notified in writing of the decision of the Admissions Committee as soon as a decision is made.
School of Continuing and Professional Studies

Dean: Michael Giampaoli
Wahlstrom Library, Garden Level
126 Park Avenue
Telephone: (203) 576-4168
Fax: (203) 576-4537
E-mail: scpsinfo@bridgeport.edu
Website: www.bridgeport.edu/scps

The School of Continuing and Professional Studies (SCPS) serves the public by facilitating access to the University's knowledge and resources through credit and non-credit courses and alternative methods of teaching and learning, and by aiding adult lifelong learners and organizations to become more competitive, improve their earning power, and enrich their lives.

THE IDEAL DEGREE COMPLETION PROGRAM

Associate Dean and Director of Advising: Yvrose Romulus
Director of Admissions: Mary Jane Dubner
Wahlstrom Library, Garden Level
Telephone: (203) 576-4800
E-mail: idealinfo@bridgeport.edu

The Innovative Degree Excellence in Accelerated Learning (IDEAL) program was an early pioneer in accelerated degree-completion programs for adult learners, beginning in 1988 and expanding into three locations throughout the state: Bridgeport, Stamford and Waterbury.

The IDEAL Program gives adults age 23 or over the opportunity to complete a bachelor's degree at a convenient time and place. Courses are mostly offered in five- and eight-week terms – one meeting per week – nine sessions per year in various formats; evening, weekend and online. All faculty who teach in the IDEAL program hold graduate degrees in their teaching discipline and possess relevant and current professional experience. They deliver quality instruction to the adult learner utilizing one's knowledge and experience by fostering innovation in the classroom and a valuable learning environment that will enhance the students' career.

Programs of Study
The degree completion program offers degrees in:
- A.A. in Business Administration
- A.A. in General Studies
- B.S. in Business Administration
- B.S. in General Studies Business concentration
- B.S. in General Studies Social Science concentration
- B.S. in General Studies Online Social Science concentration
- B.S. in Human Services
- B.S. in Human Services & Psychology (Double Major)
- B.S. in Professional Studies
- B.S. in Professional Studies with a concentration in Healthcare Administration
- B.S. in Professional Studies with a concentration in Human Resources Administration
- B.S. in Professional Studies with a concentration in Organizational Leadership
- B.S. in Psychology
- Certificate in Human Resource Management

STAMFORD CENTER

Director: Maureen Maloney
5 Riverbend Drive
Stamford, CT 06907
Telephone: (203) 358-0700
Fax: (203) 967-3735
E-mail: ubstamford@bridgeport.edu
Website: www.bridgeport.edu/stamford

The Stamford Campus is located in the Springdale section of Stamford in the Riverbend Center, a corporate park with plenty of secure parking, near the Springdale Metro-North railroad station, L-95, and Merritt Parkway. The facility includes wireless technology-enhanced classrooms, SmartBoard technology, networked computer lab, faculty and administrative offices, student resource room and free, convenient parking.

Programs of Study at the Stamford Center

UNDERGRADUATE (IDEAL Degree Completion Program):
- B.S. in Business Administration

GRADUATE:
- M.S. in Counseling (Weekend)
- M.S. in Education (part-time Evening and Weekend)
- M.S. in Education Intern Program
- Teaching Certification (Elementary, Middle and Secondary)
- Sixth Year Education Program (General, Reading, and Administration)

WATERBURY CENTER

Director: Karen Ringwood
84 Progress Lane
Waterbury, CT 06705
Tel: (203) 573-8501
Fax: (203) 573-8576
E-mail: ubwaterbury@bridgeport.edu
Website: www.bridgeport.edu/waterbury

The University of Bridgeport's Waterbury Campus is conveniently located off Interstate 84 from exit 25A on the Waterbury/Cheshire border and offers undergraduate, graduate, and post-graduate programs. The facility includes wireless technology-enhanced classrooms, SmartBoard Technology, networked computer lab, faculty and administrative offices, student resource room and free, convenient parking.

Programs of Study at the Waterbury Center

UNDERGRADUATE (IDEAL Degree Completion Program):
- B.S. in General Studies (concentrations in Business or Social Sciences)
- B.S. in Human Services
- B.S. in Psychology

GRADUATE:
- M.S. in Education (part-time Evening and Weekend)
- M.S. in Education Intern Program
- Sixth Year Education Program (General, Reading, and Administration)
English Language Institute (ELI)

**Director:** Meg Cooney  
English Language Institute  
Carlson Hall  
303 University Avenue  
Telephone: (203) 576-4860  
Fax: (203) 576-4861  
E-mail: esl@bridgeport.edu

**Assistant Director:** Jennie Farnell  
English Language Institute  
Carlson Hall  
303 University Avenue  
Telephone: (203) 576-4458  
E-mail: jfarnell@bridgeport.edu  
Website: http://www.bridgeport.edu/eli

**General Information**

The English Language Institute of the University of Bridgeport offers an intensive program of English as a Second Language. ELI also organizes off-campus trips and on-campus activities designed to introduce international students to the United States, its language and its people.

ELI classes are offered year round, Monday through Friday. Full-time students attend class in the mornings and afternoons. Part-time students can choose to attend mornings or afternoons. For full-time students, a typical day consists of 5 hours of instruction, including classroom instruction in grammar, composition, reading, listening, and speaking, and assigned work in the university’s state-of-the-art language laboratory. ELI provides highly individualized instruction. Classes are limited to 15 students per teacher.

ELI students receive a University of Bridgeport student I.D. card and are entitled to use facilities on the campus of the University of Bridgeport, such as the Wahlstrom Library and the Wheeler Recreation Center, to name but a few.

**Admission**

ELI students must have a strong personal commitment to learning the English language. Courses in English as a Second Language are offered year-round at all levels from beginner through advanced. ELI application forms and additional program information may be obtained at the above address or may be printed out directly from the ELI Internet address shown above.

Applicants must be at least 17 years old. Applications are accepted at any time of the year and new students may begin class throughout the whole year. International Admissions issues an official letter of admission to the program and an I-20 form promptly upon receiving a completed ELI application. After receiving the I-20 issued by ELI, the prospective student may apply for an F-1 student visa at an American embassy or consulate prior to coming to the United States.

ELI students must have a strong personal commitment to learning the English language. Courses in English as a Second Language are offered year-round at all levels from beginner through advanced. ELI application forms and additional program information may be obtained at the above address or may be printed out directly from the ELI Internet address shown above.

The curriculum of ELI focuses on improving skills in speaking, listening comprehension, writing, and reading. At all levels of the curriculum, ELI instructors seek to help students improve their language skills through active use of the language both in and out of the classroom.

New students complete a placement test upon arrival and are placed in the appropriate level of English. Successful completion of the session allows the student to move up to the next level.

Students who are placed in the lower levels concentrate on basic grammar, speaking, listening, and reading skills, and practice paragraph writing. As students progress through the levels, they continue to improve their speaking and listening skills while taking on more challenging tasks in reading and writing.

In the advanced levels, students strive to achieve competence in language-dependent tasks similar to those that are required of native speakers of English in both academic and career-related activities. These include reading for content; note-taking from spoken and written materials; speaking skills needed to relate information, to persuade, to negotiate, and to inquire; and skills needed in essay and report writing, as well as in effective correspondence.

Graduates of ELI receive a “Certificate of Completion” which certifies that they have met the English language requirement for admission to the University of Bridgeport. Grades reports are issued upon request.

**Schedule of Charges**

Please see insert for current academic year for tuition, fees, and other expense.

ELI students should plan on spending about $200 per 8-week session to cover required books and miscellaneous personal expenses such as recreational travel, local transportation, books, laundry, clothing, etc.

**Application Forms and Additional Information**

Prospective students may obtain application forms, credit card charge forms, insurance information, etc. at ELI’s Internet site, by email, or by calling or faxing ELI.
Ernest C. Trefz Center for Venture Management and Entrepreneurial Studies

The Ernest C. Trefz Center for Venture Management and Entrepreneurial Studies (CVM) builds upon the entrepreneurial spirit of its principle supporter to encourage the development and retention of small businesses in the region. The Center provides opportunities for potential entrepreneurs and small business persons to get expert help with their ventures and for faculty and students to participate in entrepreneurial experiences.

COMPONENTS OF THE CENTER FOR VENTURE MANAGEMENT INCLUDE:

- The Business Development Institute helps potential entrepreneurs and small business persons get help in start-up, business organization, finance, marketing, staffing and management; and assists in evaluating technology and development planning.

- The Bridgeport Foreign Trade Institute sponsors monthly international business seminars and conferences; develops networks of international business firms; provides consultation services to those individuals and organizations who attempt to enter international business; and assists local governments in promoting local businesses and products made in the State of Connecticut to foreign markets and investors.

- The Urban Management Institute studies socioeconomic issues in the region and recommends appropriate policy initiatives.

- The Special Projects Unit promotes activities especially targeted for small business people in the region through conferences, seminars and special events. Typical events include: “The Entrepreneurship Conference,” “The National Innovation Workshop,” “Technology Transfer and Licensing,” “The Banking Forum,” and Minority Workshops on “How To Succeed In Small Business.”

- The SCORE (Service Corps of Retired Executives), Bridgeport Chapter, is housed in the Trefz Center on the University campus. SCORE offers opportunities to students for internships in business consultation.
Pre-Professional Programs

The University of Bridgeport is committed to providing the appropriate education and guidance to those students for whom the baccalaureate degree is a stepping-stone to the completion of a professional degree in the health sciences or law. To this end the University has established a Pre-Law and a Pre-Health advisory program.

Pre-Law Studies

Advisor: Timothy Raynor
Mandeville Hall
230 Park Avenue
Telephone: (203) 576-4687
Fax: (203) 576-4888
E-mail: traynor@bridgeport.edu

While no single curricular path is the ideal preparation for law school, a broadly based undergraduate program that includes training in analytical reasoning and writing will serve you well. Law schools want students who can think, read, and write and who have some understanding of the forces that have shaped human experience. You can acquire these attributes in any number of college courses, whether in the humanities, the social sciences, or the natural sciences.

English language and literature courses are virtually indispensable. At the same time, every law student should be aware of the institutional processes of government through which much of the law is made and applied. You can gain this awareness through study in political science. Because the law is inseparable from our historic experience, you should have some acquaintance with American history. The fact that many legal subjects are intimately concerned with economic relations among individuals, and with the structure and development of business enterprises, makes a knowledge of macro and microeconomics valuable. Statistics, accounting, and computer science are other courses that will help you to understand special legal subjects and the practice of law.

Accredited law schools require that applicants take the Law School Admission Test (LSAT). In the admissions process, law schools are primarily interested in the student’s LSAT score, the student’s GPA, and the intensity and depth of the student’s undergraduate program, showing the student’s capacity to perform well at an academically rigorous level.

For more information on pre-law studies, check out the Law School Admission Council at www.lsac.org.

Pre-Health Professional Studies

Advisor to Pre-Health: Spiros Katsifis
Charles Dana Hall
169 University Avenue
Telephone: (203) 576-4265
Fax: (203) 576-4262
E-mail: skatsif@bridgeport.edu

Advisor to Pre-Health for General Studies Majors: Edward Geist
Bryant Hall
271 Park Avenue
Telephone: (203) 576-4956
Fax: (203) 576-4051
E-mail: edgeist@bridgeport.edu

The major categories of Pre-Health Professional Studies are:
- Pre-Chiropractic
- Pre-Naturopathic
- Pre-Dental
- Pre-Veterinary
- Pre-Medical

Virtually all of the professional schools in these fields have the same minimum entrance requirements:

1. Completion of 90 credit hours of college work or completion of a bachelor’s degree,
2. Completion of laboratory science courses in the following subjects:
   - Biology – 8 credit hours
   - General Chemistry – 8 credit hours
   - Organic Chemistry – 8 credit hours
   - General Physics – 8 credit hours
3. Completion of a liberal arts core that includes English composition, psychology, communications, humanities, social sciences, and the fine arts.

Depending on the health profession and school some variation in these requirements does occur.

The highest percentage of students admitted to health professional graduate schools major in biology with chemistry the second most common major. However, students majoring in any discipline, e.g. history, music, or psychology, are also viable candidates provided they satisfy the pre-requisites of the professional school to which they seek admission.

The University of Bridgeport’s Biology Major offers a B.A. or B.S. degree that provides a rigorous scientific and technical program for the pre-health professional student. See the Biology major for additional details.

The University of Bridgeport’s Bachelor of Science in General Studies (B.S.) degree program provides the student with the opportunity to create a program, in consultation with their advisor, that may fit the individual student’s particular needs.

The University offers a pre-Chiropractic program in the Biology major and the General Studies major. These programs are offered with the cooperation of the University of Bridgeport College of Chiropractic. In both programs the student may elect a 90-Credit Basic Option, Combined Baccalaureate/Doctor of Chiropractic Option, or Complete Baccalaureate followed by Doctor of Chiropractic Option. See the description of the pre-chiropractic program elsewhere in the catalog.

A pre-Naturopathic program is also offered in cooperation with the University of Bridgeport’s College of Naturopathic Medicine. In this program a student must complete the bachelor’s degree before entering the College of Naturopathic Medicine. See the description of this program elsewhere in the catalog.

It should be noted that pre-health professional study in any of the above areas provides an excellent foundation for other careers in the health sciences, including osteopathy, podiatry, physical therapy, optometry, and pharmacy.
Pre-Professional Programs for Chiropractic

The University of Bridgeport offers a pre-professional program for students preparing for Chiropractic College, the Pre-Chiropractic Program for undergraduate students. This program fulfills the prerequisites for all Chiropractic colleges in the United States and Canada, including the University of Bridgeport College of Chiropractic.

Pre-Chiropractic Programs

Three undergraduate options of pre-chiropractic are offered in the Biology and General Studies majors: 90-Credit Basic Option, Combined Baccalaureate/Doctor of Chiropractic Option, and Complete Baccalaureate Followed by Doctor of Chiropractic Option. In both majors the student earns a bachelor's degree which provides requirements for entrance into Chiropractic school.

The University of Bridgeport’s Biology major offers both the B.S. and B.A. degrees. The major provides a rigorous scientific and technical program for the pre-Chiropractic student. The program is described in the section on Biology degrees.

The University of Bridgeport’s Bachelor of Science in General Studies (B.S.) degree program provides the student with the opportunity to create a program in consultation with their advisor, that may fit the individual student’s particular needs. This program is described elsewhere in the catalog under the General Studies major.

Both of these majors fulfill the University of Bridgeport’s College of Chiropractic’s minimum entrance requirements, which are:

1. Completion of 90 semester hours of undergraduate course work with a minimum grade point average of 2.50 on a 4.00 scale. In addition to this the cumulative grade point average must be competitive with other applicants vying for seats in the College of Chiropractic.

2. Completion of the following specific courses as part of their professional preparation:
   - Communication/Language Skills: 6 semester hours
   - Psychology: 3 semester hours
   - Social Science: 3 semester hours
   - Humanities: 3 semester hours
   - Electives (Social Science/Humanities): 9 semester hours
   - Biology: 8 semester hours
   - General Chemistry: 8 semester hours
   - Organic Chemistry: 8 semester hours
   - General Physics: 8 semester hours

3. All biology, chemistry, and physics courses must:
   - be suitable for students majoring in the sciences,
   - consist of a first semester and second semester course in each subject
   - be passed with a grade of “C” (2.00 on a 4.00 scale) or better with a cumulative science quality point ratio of 2.25 or better,
   - have a related laboratory.

90-CREDIT BASIC OPTION

Students electing this option complete 90 credits of course work, which includes fulfilling the Chiropractic admission requirements listed above. The student applies to and, if accepted, pursues the D.C. degree in Chiropractic college, but does not earn a bachelor’s degree.

COMBINED BACCALAUREATE / DOCTOR OF CHIROPRACTIC OPTION

The University of Bridgeport School of Arts and Sciences and College of Chiropractic offer a seven year coordinated program leading to a combined Baccalaureate and Doctor of Chiropractic degree. Students enrolled in this option complete three years (at least 90 credits) of undergraduate coursework, including all required core courses in the University of Bridgeport curriculum. Students who successfully complete their first three years at the University of Bridgeport, and who comply with the requirements for admission to the University of Bridgeport College of Chiropractic described above may be granted admission into the College of Chiropractic.

Upon acceptance and entrance into the College of Chiropractic, the student may transfer up to 30 semester hours of basic science coursework in the College of Chiropractic to their undergraduate record to be applied towards completion of the B.S. or B.A. degree in Biology. A student must have a 2.50 grade point average in the College of Chiropractic and earned a grade of “C” or better in any course to be transferred. Courses which may be transferred for undergraduate credit are:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN 511</td>
<td>Histology</td>
<td>4</td>
</tr>
<tr>
<td>AN 512</td>
<td>Functional Anatomy &amp; Biomechanics I: Spine</td>
<td>5</td>
</tr>
<tr>
<td>BC 511</td>
<td>Biochemistry, Metabolism &amp; Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>AN 513</td>
<td>General Anatomy I: Viscera</td>
<td>4.5</td>
</tr>
<tr>
<td>AN 514</td>
<td>Embryology I</td>
<td>1</td>
</tr>
<tr>
<td>PH 521</td>
<td>Physiology I</td>
<td>3</td>
</tr>
<tr>
<td>NS 521</td>
<td>Neuroscience I</td>
<td>3</td>
</tr>
<tr>
<td>AN 525</td>
<td>General Anatomy II: Head &amp; Neck</td>
<td>4.5</td>
</tr>
<tr>
<td>AN 526</td>
<td>Functional Anatomy &amp; Biomechanics II: Extremities</td>
<td>5</td>
</tr>
<tr>
<td>AN 527</td>
<td>Embryology II</td>
<td>1</td>
</tr>
<tr>
<td>NS 612</td>
<td>Neuroscience II</td>
<td>5</td>
</tr>
<tr>
<td>PH 612</td>
<td>Physiology II</td>
<td>5</td>
</tr>
<tr>
<td>MB 621</td>
<td>Microbiology</td>
<td>5</td>
</tr>
</tbody>
</table>

Upon satisfactory completion of all requirements for the baccalaureate degree, including the needed basic science appropriate Chiropractic courses, the School of Arts and Sciences will award the degree. Requirements for the B.A. or B.S. degree in Biology are listed under Biology. Requirements for the Bachelor of Science in General Studies degree are listed under General Studies.

The student must work closely with the undergraduate advisor to insure all required courses for the baccalaureate degree as well as prerequisites for Chiropractic College are fulfilled. This is especially important in earning the first 90 credits towards the degree before entering Chiropractic College.

To be accepted for the Doctor of Chiropractic degree program, the student must:

- maintain a minimum grade point average of 2.50 with a minimum grade of “C” in all undergraduate courses required by the University of Bridgeport College of Chiropractic;”
Pre-Professional Programs for Chiropractic

• schedule a meeting with the Director of Admissions of the University of Bridgeport College of Chiropractic immediately upon matriculation at the University of Bridgeport, indicating intent to continue into the Doctor of Chiropractic program upon completion of prerequisite undergraduate study. Pre-chiropractic advisement will be coordinated with the student’s undergraduate advisor;

• submit an application for admission to the Director of Admissions of the University of Bridgeport College of Chiropractic prior to registering for the fifth semester of pre-chiropractic study at the University of Bridgeport;

• successfully complete a personal interview with members of the Admissions Committee of the University of Bridgeport College of Chiropractic during the final semester of pre-chiropractic study.

** Students in this program who complete the requirements for admission into the College of Chiropractic with a grade point average of 3.00 or higher and a grade of “B” or better in each of the science prerequisites will be granted preferred status for admission into the University of Bridgeport College of Chiropractic for the entry date of their choice.

COMPLETE BACCALAUREATE FOLLOWED BY DOCTOR OF CHIROPRACTIC OPTION

Under this option, the student completes the baccalaureate degree, making sure all entrance requirements for Chiropractic College are satisfied. The student then, if accepted, enters Chiropractic College.

Prospective students with questions about any of the above programs and options may contact:

Spiros Katsifis, Ph.D.
Chair of Biology
Charles Dana Hall
Telephone: (203) 576-4265
E-mail: skatsif@bridgeport.edu

Edward Geist, Ph.D.
Advisor to Pre-Chiropractic
General Studies Major
Bryant Hall
Telephone: (203) 576-4956
E-mail: edwgeist@bridgeport.edu
Pre-Professional Programs for Naturopathic Medicine

Pre-Naturopathic Programs

Undergraduate options of pre-naturopathy are offered in the Biology and Bachelor of Science in General Studies majors. In both of these programs the student earns a bachelor's degree which provides requirements for entrance into the College of Naturopathic Medicine and additional skills that will assist the students in their studies once there.

The University of Bridgeport's Biology major offers both the B.S. and B.A. degrees. The major provides a rigorous scientific and technical program for the pre-naturopathic student. The program is described in the section on Biology degrees.

The University of Bridgeport's Bachelor of Science in General Studies degree program provides the student with the opportunity to create a program in consultation with their advisor, that may fit the individual student's particular needs.

Both of these majors fulfill the University of Bridgeport's College of Naturopathic Medicine's minimum entrance requirements which are:

1. Completion of a baccalaureate degree, taken in an accredited degree-granting institution, with a minimum quality point ratio of 2.50 on a 4.00 scale.

2. Completion of the following specific courses as part of their professional preparation:

   - Communication/Language Skills
     6 semester hours
   - Psychology
     3 semester hours
   - Social Science
     3 semester hours
   - Humanities
     3 semester hours
   - Electives (Social Science/Humanities)
     9 semester hours
   - General Biology/Zoology/Anatomy & Physiology (with lab)
     8 semester hours
   - General Chemistry (with lab)
     8 semester hours
   - Organic Chemistry (with lab)
     8 semester hours
   - General Physics (with lab)
     8 semester hours

3. All biology/zooology/anatomy & physiology, chemistry, and physics courses must:

   - be suitable for students majoring in the sciences,
   - consist of a first semester and second semester course in each subject
   - be passed with a grade of “C” (2.00 on a 4.00 scale) or better with a cumulative quality point ratio of 2.50 or better,
   - have a related laboratory, and
   - have been taken within the past seven years.

Prospective students with questions about any of the above programs and options may contact:

Leanne Proctor
Director of Admissions
College of Naturopathic Medicine
Telephone: (203) 576-4108
E-mail: lproctor@bridgeport.edu
Graduate Studies Division

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Fax: (203) 576-4051
E-mail: manyulim@bridgeport.edu

Dean: Lloyd Gibson
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Associate Dean: Arthur McAdams
School of Business - Marketing
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E-mail: mba@bridgeport.edu

Dean: Allen Cook
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Carlson Hall
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Fax: (203) 576-4102
E-mail: acook@bridgeport.edu

Associate Vice President for Graduate Programs: Khaled Elleithy
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Engineering Technology Building
Telephone: (203) 576-4703
Email: elleithy@bridgeport.edu

Vice President and Dean: Thomas Ward
College of Public and International Affairs
Carlson Hall
303 University Avenue
Telephone: (203) 576-4966
Fax: (203) 576-4967
Email: ward@bridgeport.edu

Associate Dean for Business Development and Outreach: Gad Selig
Schools of Business and Engineering
Mandeville Hall – Room 302
230 Park Avenue
Telephone: (203) 576-4870
Email: gadselig@bridgeport.edu

GRADUATE STUDIES DIVISION PROGRAMS
The Graduate Studies Division is responsible for the management and administration of graduate and professional programs, graduate concentration areas, certificates and dual graduate degree programs at the University of Bridgeport.

The following graduate programs in the College of Public and International Affairs and Schools of Arts and Sciences, Business, Education and Engineering are the current programs that participate in the activities of the Graduate Studies Division.

1. M.S. (Biomedical Engineering)
2. M.S. (Computer Science)
3. M.S. (Computer Engineering)
4. M.S. (Counseling)
5. M.S. (Electrical Engineering)
6. M.A. (Global Development and Peace)
7. M.A. (Global Media & Communication Studies)
8. M.S. (Mechanical Engineering)
9. M.S. (Technology Management)
10. M.B.A. (Masters of Business Administration)
11. M.A. (East Asian Pacific Rim Studies)
12. M.S. (Computer Engineering)
13. Ph.D. (Computer Science and Engineering)
14. Ph.D. (Technology Management)
15. Ed.D. (Educational Leadership)

Students wishing to pursue a second Master’s Degree must apply to and be accepted into the second Master’s Degree Program. Their application should identify the degree they are already pursuing and clearly state that, if accepted, they will be simultaneously enrolled in two degree programs.

Students must meet all of the requirements of each degree in order to be awarded the degree.

In the event that there is course overlap between the two programs, such as might for example be the case with Master’s Degrees in Engineering or Master’s Degrees in Technology Management and Business, the total number of hours for the two degrees will not be less than 48.
Graduate Interdisciplinary Studies
Graduate Degree Concentrations and Professional Graduate Certificates

The following concentration areas can be incorporated into the graduate programs offered by the Schools of Engineering, Business, Education, and Arts & Sciences or some of the dual graduate degree programs. Matriculated and non-matriculated students can elect to obtain graduate certificates in any of the concentration areas by satisfying the requirements of the respective areas. Certificates can be earned without being a student in a degree program.

### 1. Global Program and Project Management

**REQUIRED:**
- TCMG 505 – Global Program and Project Management

**CHOOSE ANY TWO FROM THE FOLLOWING:**
- TCMG 508/MGMT 560 – Foundations of Product Management
- TCMG 533 – Information Technology Strategy
- TCMG 534/MGMT 534 – Strategic Sourcing & Vendor Management
- TCMG 580X/MGMT 585 – New Product Commercialization
  
Any other course that is approved by your advisor

### 2. Manufacturing Management

**REQUIRED:**
- TCMG/MEEG 530 – Foundations of Manufacturing Management

**CHOOSE ANY TWO FROM THE FOLLOWING:**
- TCMG/MEEG 508/MGMT 560 – Foundations of Product Management
- TCMG 533 – Information Technology Strategy
- TCMG 534/MGMT 534 – Strategic Sourcing & Vendor Management
- TCMG 580X/MGMT 585 – New Product Commercialization
  
Any other course that is approved by your advisor

### 3. Supply Chain and Service Management

**REQUIRED:**
- TCMG/MEEG 573 – Supply Chain Management

**CHOOSE ANY TWO COURSES FROM THE FOLLOWING:**
- TCMG/MEEG 574 – Principles of Logistics and Material Management
- TCMG/MEEG 530 – Foundations of Manufacturing Management
- TCMG 534 – Strategic Sourcing and Vendor Management
- TCMG/MEEG 546 – Engineering Economics
- TCMG/MGMT 571 – Foundations of Service Management and Engineering
  
Any other course that is approved by your advisor

### 4. Quality Management & Continuous Improvement

**REQUIRED:**
- TCMG 578X – Six Sigma

**CHOOSE ANY TWO COURSES FROM THE FOLLOWING:**
- TCMG/MEEG 577X – Lean Manufacturing
- TCMG/MEEG 540 – Simulation & Modeling
- TCMG/MGMT 571 – Foundations of Service Management & Engineering
  
Any other course that is approved by your advisor

Graduate Studies Division
Undergraduate Degree Programs
Accounting  Bachelor of Science Degree

Undergraduate Program Director:
Tim Raynor
Mandeville Hall: 304
Telephone: (203) 576-4687
Fax: (203) 576-4388
E-mail: traynor@bridgeport.edu

Faculty Contact: David Kohn
Mandeville Hall, Room 202
Telephone: (203) 576-4371
Fax: (203) 576-4388
E-mail: dkohn9021@bridgeport.edu

Curriculum and Program Requirements
The accounting curriculum provides an opportunity for students with varied interests to obtain a broad-based understanding of the role of accounting in the measurement and communication of financial and economic data. A number of interdisciplinary courses have been designed for those students wishing a maximum overview of multinational issues in accounting and taxation as well as for those students who intend to pursue more advanced studies in accounting. Accounting students who expect to take the Certified Public Accountant professional examinations should select elective courses with the approval of and in consultation with the Chair of the Accounting Department.

The University Core Curriculum requires passing the mathematics competency exam or taking Mathematics 105. This competency is a prerequisite for CAIS 101. Students anticipating graduate study in Business are advised to take Calculus as a free elective.

Upper Division coursework provides students with a common body of managerial knowledge, multinational business studies, study in a major field, and an internship or business development project. The concentration of professional courses in the last two years builds upon the broad-based analytical tools and liberal arts foundation of the first two years.

Management 350, Business Policy and Strategy, is the Capstone Course of this degree program. The final examination of this course shall constitute, therefore, an outcome assessment of what the student has learned in the program. This examination, normally an extensive and comprehensive case study, will be graded by several faculty members representing different and relevant disciplines.

Learning Outcomes

LEARNING OBJECTIVES
Students 1) acquire the knowledge necessary for an understanding of business data; 2) develop the technical skills necessary to measure, analyze, and interpret economic data; 3) learn how to effectively communicate economic data; and 4) acquire the accounting foundation that enables them to pursue advanced study required for the successful completion of the CPA exam.

ASSESSMENT
Students are evaluated with exams, homework assignments and oral presentations. Students will be evaluated and benchmarked with a standardized accounting test. This will ensure their preparation for graduate study towards the CPA exam. Students’ accounting knowledge and skills also will be tested with a program specific exam when they begin and finish their accounting program.

Students must earn a grade of “C” or higher in each Accounting major course.

Summary of Requirements

CREDITS
General Education Requirements 42
Accounting Program Requirements 63
Accounting Electives 6
Free Electives 9
120

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 102</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 103</td>
<td>Managerial/Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 210</td>
<td>Financial Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 300</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 311</td>
<td>Taxation of Individuals</td>
<td>3</td>
</tr>
<tr>
<td>CAIS 191</td>
<td>Computer Concepts</td>
<td>3</td>
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<tr>
<td>CAIS 101</td>
<td>Statistics</td>
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<tr>
<td>CAIS 102</td>
<td>Applied Statistics</td>
<td>3</td>
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<tr>
<td>CAIS 201</td>
<td>Introduction to CAIS</td>
<td>3</td>
</tr>
<tr>
<td>FIN 309</td>
<td>Managerial Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 321</td>
<td>Investment Principles</td>
<td>3</td>
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<tr>
<td>FIN 380</td>
<td>Multinational Finance</td>
<td>3</td>
</tr>
<tr>
<td>LAW 251</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT301</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT302</td>
<td>Multicultural Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT312</td>
<td>Taxation of Entities</td>
<td>3</td>
</tr>
<tr>
<td>MGMT350</td>
<td>Business Policy and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 305</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 342</td>
<td>Multinational Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 382</td>
<td>Senior Project/Internship</td>
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</tr>
</tbody>
</table>

Plus six semester hours of Accounting electives selected two courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ACCT 301</td>
<td>Intermediate Accounting II</td>
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<tr>
<td>ACCT 302</td>
<td>Multicultural Management</td>
<td>3</td>
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<tr>
<td>ACCT 327</td>
<td>Multinational Accounting</td>
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</tr>
<tr>
<td>ACCT 335</td>
<td>Auditing</td>
<td>3</td>
</tr>
</tbody>
</table>

6

FREE ELECTIVES
May be selected from any University courses with the permission of the advisor.
Free Electives 9

9

GENERAL EDUCATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition and Rhetoric</td>
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<tr>
<td>FYS 101</td>
<td>First Year Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MATH C105</td>
<td>Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
<td>6</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Core</td>
<td>6</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Economics - Macro</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Economics - Micro</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 202</td>
<td>Advanced Composition (for Business)</td>
<td>3</td>
</tr>
<tr>
<td>FA</td>
<td>Fine Arts Core</td>
<td>3</td>
</tr>
<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SOSC</td>
<td>Social Sciences Core</td>
<td>6</td>
</tr>
</tbody>
</table>

42

Total Semester Hours 120
## Suggested Program

### FIRST SEMESTER

- ACCT 101 Principles of Accounting I 3
- CAIS 191 Computer Concepts 3
- ENGL C101 Composition and Rhetoric 3
- FYS 101 First Year Seminar 3
- MATH C105 Intermediate Algebra 3

### SECOND SEMESTER

- ACCT 102 Principles of Accounting II 3
- ENGL 202 Advanced Composition (for Business) 3
- CAIS 101 Statistics 3
- SCI Natural Science Core 3
- FA Fine Arts Core 3

### THIRD SEMESTER

- ECON 201 Principles of Economics - Macro 3
- CAIS 102 Applied Statistics 3
- ACCT 103 Managerial/Cost Accounting 3
- ACCT 210 Financial Accounting Systems 3
- SOSC Social Science Core 3

### FOURTH SEMESTER

- ECON 202 Principles of Economics - Micro 3
- LAW 251 Business Law I 3
- CAIS 201 Introduction to CAIS 3
- SCI Natural Science Core 3
- ACCT 300 Intermediate Accounting I 3

### FIFTH SEMESTER

- FIN 309 Managerial Finance 3
- MGMT 301 Operations Management 3
- MKTG 305 Principles of Marketing 3
- HUM Humanities Core 3
- ACCT Major Elective 3

### SIXTH SEMESTER

- FIN 380 Multinational Finance 3
- MKTG 342 Multinational Marketing 3
- MGMT 302 Multicultural Management 3
- HUM Humanities Core 3
- ACCT Major Elective 3

### SEVENTH SEMESTER

- FIN 321 Investment Principles 3
- ACCT 311 Taxation of Individuals 3
- BUAD 382 Senior Project/Internship 3
- Free Elective 3
- SOSC Social Science Core 3

### EIGHTH SEMESTER

- MGMT 350 Business Policy and Strategy 3
- CAPS C390 Capstone Seminar 3
- Free Electives 9

**Total Semester Hours** 120
Biology Bachelor of Arts / Bachelor of Science Degree

Chair: Spiros Katsifis
Dana Hall, Room 210
Telephone: (203) 576-4265
Fax: (203) 576-4262
E-mail: skatsif@bridgeport.edu

Curriculum and Program Requirements

The Biology Department offers a Bachelor of Arts and a Bachelor of Science degree in Biology. Students are introduced in laboratory training to Molecular Biology, Microbiology, Ecology, Immunology, Toxicology, Analytical Techniques and Tissue Culture. Both degrees prepare students to pursue a traditional graduate biology degree or to successfully enter a graduate school in Biomedical Science, Biotechnology or Allied Health and Health Professions. Biology graduates can enter the work force in government, the pharmaceutical or chemical industry, EPA, FDA, NIH or other research institutions. Students upon successful completion of two semesters in the general biology program may apply to pursue a specific option in biology such as:

BIOMEDICAL SCIENCE / BIOTECHNOLOGY

Students interested in pursuing a career in Biomedical Science or Biotechnology follow the basic biology curriculum. For their elective courses they choose from the following: Microbiology (BIOL 320), Human Anatomy and Physiology (BIOL 113, 114), Comparative Anatomy (BIOL 210), Biochemistry (CHEM 365), Immunology (BIOL 441), Toxicology (BIOL 444), Histology (BIOL 303), Embryology (BIOL 328), and Biostatistics (BIOL 203B). Students should participate in a summer research program for practical experience in their field of study. A research project is required.

ENVIRONMENTAL BIOLOGY

Students who choose an option in Environmental Biology should take elective courses such as Environmental Health (BIOL 418), Marine Biology (BIOL 380), Microbiology (BIOL 320), Toxicology (BIOL 444), Environmental Geology (GEOL 205), Marine ecology (BIOL 430), Biostatistics (BIOL 203B) and field work. Participation in a summer study program is recommended.

MARINE BIOLOGY

A marine biology option in the Biology major takes advantage of the University’s location on Long Island Sound and proximity to several marine research laboratories and teaching institutions. Students electing the marine biology option follow the basic biology curriculum. Elective courses should include marine related courses: e.g. marine ecology, invertebrate zoology, environmental health, microbiology, microbial ecology, fieldwork, and analytical chemistry. Students are strongly encouraged to participate in summer internships and directed research.

ECOLOGY/EVOLUTION

Students interested in a career in Ecology/Evolution should include courses such as Marine Ecology (BIOL 430), Comparative Anatomy (BIOL 210), Biostatistics (BIOL 203B) and field work. Students should use their independent research course to complete a project for participation at a National Meeting.

TOXICOLOGY

The Biology Program offers a concentration in General Toxicology/Forensic Toxicology. Interested students should follow the basic biology curriculum and their elective courses should be selected from the following: General Toxicology (BIOL 444), Physical Chemistry (CHEM 319 or 320), Biochemistry (CHEM 365), Instrumental Analysis (CHEM 361), Immunology (BIOL 441), Microbiology (BIOL 320), Environmental Health (BIOL 418) and Biostatistics (BIOL 203B). Students are advised to participate in a summer research program related to their field. A research project is required.

PRE-HEALTH PROFESSIONAL OPTIONS

The Biology Major offers pre-health professional options in Pre-Medicine, Pre-Dentistry, Pre-Veterinary, Pre-Pharmacy, Pre-Chiropractic, Pre-Naturopathic, Pre-Osteopathic, Pre-Occupational Therapy, Pre-Physician Assistant and Pre-Physical Therapy and Pre-Nutrition.

BIOLOGY MINOR

Students wishing to obtain a minor in Biology must take Biology 101, 102, 211, 223, and one additional Biology course of at least 3 credits at the 200 level or higher.

Learning Outcomes

By completing the Biology program, students will:

1. be able to read and interpret current biological literature, formulate scientific hypotheses, design and execute experiments, and analyze and interpret data.

2. have mastered the fundamental principles of cell/molecular /organism biology.

3. have training necessary to apply biological, biomedical and biotechnological principles and techniques to human health and well-being from a holistic/wellness perspective.

4. have awareness and appreciation of interdisciplinary interactions among other disciplines in the natural sciences, mathematics and cognate fields.

5. have awareness to appreciate the beauty, complexity and fragility of our biosphere, and the intricate dynamics of balancing systems within the biosphere.

6. have critical tools to exercise responsibility and stewardship of the biosphere by assuming positions of leadership in our global society.
BIOLOGY, BACHELOR OF ARTS

The Bachelor of Arts degree in Biology is for students who are seeking a broad liberal arts program. It is designed to allow students to obtain a minor that may be appropriate for their career aspirations.

The Biology Major in cooperation with the School of Education offers a 5-year combined Bachelor of Arts in Biology/Master of Science in Education program for students interested in pursuing a teaching career. Students interested in this program should contact the Chair of Biology.

Summary of Requirements

PROGRAM REQUIREMENTS

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Biology Electives

Total Semester Hours 29

GENERAL EDUCATION REQUIREMENTS

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Total Semester Hours 31

Suggested Program

FRESHMAN YEAR

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Junior Year and Senior Year

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Biology Electives

Total Semester Hours 31

BIOLOGY, BACHELOR OF SCIENCE

The Bachelor of Science in Biology is for students who wish to pursue a career that requires further study at the graduate or professional level. Students interested in scientific research or one of the health professions should follow the B.S. degree program.

Summary of Requirements

PROGRAM REQUIREMENTS

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<tr>
<th>Course Code</th>
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Enrollment Requirement

ELECTIVES

Total Semester Hours 60

GENERAL EDUCATION REQUIREMENTS

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Total Semester Hours 60

1. As approved by the Department.
2. Biology and cognate courses at the 200 level or higher.
3. Pre-Health professional students are strongly encouraged to take Bio-113, 114, Human Anatomy and Physiology, and Psych 103, General Psychology.

ELECTIVES

Total Semester Hours 120
## Suggested Program

### FRESHMAN YEAR

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**Total Semester Hours:** 30

### SOPHOMORE YEAR

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**Total Semester Hours:** 31

### JUNIOR YEAR AND SENIOR YEAR

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**Total Semester Hours:** 59

**Total Semester Hours:** 120

1. Biology and cognate courses at the 200 level or higher.

2. Pre-Health professional students are strongly encouraged to take Bio-113, 114, *Human Anatomy and Physiology*, and Psych 103, General Psychology.
**Business Administration  Associate in Arts Degree**

*Undergraduate Program Director:*
Tim Raynor
Mandeville Hall: 304
Telephone: (203) 576-4687
Fax: (203) 576-4388
E-mail: traynor@bridgeport.edu

**Curriculum and Program Requirements**

The Associate in Arts in Business Administration provides options for students who want only two years of college study and students who are not certain about their degree objectives.

This degree program requires that all freshman and sophomore core business courses and business prerequisites, as well as University core requirements, be completed with an average grade of “C” or better.

Two-year business study at the University of Bridgeport provides many advantages not usually available to community college or two-year college students.

All the resources of the university are available to two-year students. This includes planning/placement services and all of the social, sports and extracurricular activities of the campus.

Students receive all the guidance and advising of a small, private two-year college, while completing their studies in the environment of a major university.

**Learning Outcomes**

**LEARNING OBJECTIVES**

Students 1) acquire basic general business knowledge; 2) develop practical technical skills necessary for initially pursuing a junior level entry position; 3) learn how to communicate with others in their organization; and 4) understand the role of business in the larger society.

**ASSESSMENT**

Students will be evaluated with a program specific exam related to the basic business courses at the beginning and end of their two-years of undergraduate study. Students are evaluated by course level exams, assignments, projects and oral presentations.

**Summary of Requirements**

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**Suggested Program**

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<td>33</td>
</tr>
</tbody>
</table>

**Total Semester Hours** 60
**Business Administration Bachelor of Science Degree**

**Undergraduate Program Director:**
Tim Raynor
Mandeville Hall: 304
Telephone: (203) 576-4687
Fax: (203) 576-4388
E-mail: traynor@bridgeport.edu

**Curriculum and Program Requirements**

The Business Administration major provides the maximum flexibility in course selection for a student to fulfill both personal and professional goals. Upon completion of University and College core requirements the student may pursue a myriad of unique combinations of study to satisfy either a general or specific purpose. This includes combining study from two or three of the major disciplines of study within the college including those disciplines not listed in this catalog such as Economics and Management Information Systems, and combinations with other colleges at the University. In all cases the student’s study program must be approved by the student’s faculty advisor.

Students interested in adding a Teacher Certification to a program in Business Administration can do so. A brief description of the teacher certification requirements appears elsewhere in this catalog under the School of Education section.

The Bachelor of Science degree in Business Administration permits a student, upon completion of the core business requirements and prerequisites applicable to all business degrees, to create a unique combination of courses in business or other academic disciplines.

All business courses listed under other majors as well as courses in other academic disciplines such as political economy, psychology or sociology, may be chosen as elements of this major.

**Learning Outcomes**

**LEARNING OBJECTIVES**

Students 1) acquire basic general business knowledge; 2) integrate knowledge across the business disciplines; 3) learn how to communicate with others in their organization; and 4) acquire in-depth knowledge and skills related to a particular discipline and career path.

**ASSESSMENT**

Students will be evaluated with a program specific exam related to the basic business courses at the beginning and end of their undergraduate study. Students are evaluated by course level exams, assignments, projects and oral presentations.

**Summary of Requirements**

**CREDITS**

| General Education Requirements | 42 |
| Business Administration Program Requirements | 51 |
| Free Electives | 12 |
| **Total** | 120 |

**PROGRAM REQUIREMENTS**

| ACCT 101 | Principles of Accounting I | 3 |
| ACCT 102 | Principles of Accounting II | 3 |
| ACCT 103 | Managerial/Cost Accounting | 3 |
| CAIS 101 | Computer Concepts | 3 |
| CAIS 102 | Statistics | 3 |
| CAIS 201 | Introduction to CAIS | 3 |
| FIN 309 | Managerial Finance | 3 |
| MGMT 301 | Operations Management | 3 |
| MGMT 302 | Multicultural Management | 3 |
| MGMT 342 | Multinational Marketing | 3 |
| MGMT 350 | Business Policy and Strategy | 3 |
| BUAD 382 | Senior Project/Internship | 3 |
| Business Electives* | 12 |
| Free Electives | 15 |

**Total Semester Hours** 120

*Suggested Program*

**Fifth Semester**

| FIN 309 | Managerial Finance | 3 |
| MKTG 305 | Principles of Marketing | 3 |
| MGMT 301 | Operations Management | 3 |
| HUM | Humanities Core | 3 |

*Specific course requirements are described under each major description or course description section of this catalog.*

**GENERAL EDUCATION REQUIREMENTS**

| ENGL C101 | Composition and Rhetoric | 3 |
| FYS 101 | First Year Seminar | 3 |
| MATH C105 | Intermediate Algebra | 3 |
| SCI | Natural Sciences Core | 6 |
| HUM | Humanities Core | 6 |
| ECON 201 | Principles of Economics - Macro | 3 |
| ECON 202 | Principles of Economics - Micro | 3 |
| ENGL 202 | Advanced Composition (for Business) | 3 |
| FA | Fine Arts Core | 3 |
| CAPS C390 | Capstone Seminar | 3 |
| SOSC | Social Sciences Core | 6 |

**Total Semester Hours** 120

*The 12 credits (4 courses) of business electives may be selected from Accounting, Economics, Finance, International Business, Management and Industrial Relations, and Marketing.

Students must earn a grade of “C” or higher in each of the four business electives.

Free electives (15 credits) may be selected from any University courses with the permission of the advisor.*
## Business Administration Bachelor of Science Degree

### SIXTH SEMESTER
- **FIN 380** Multinational Finance 3
- **MKTG 342** Multinational Marketing 3
- **MGMT 302** Multicultural Management 3
- **HUM** Humanities Core 3
- **Free Elective** 3

### SEVENTH SEMESTER
- **FIN 321** Investment Principles 3
- **BUAD 382** Senior Project/Internship 3
- **Major Electives** 6
- **Free Elective** 3

### EIGHTH SEMESTER
- **MGMT 350** Business Policy and Strategy 3
- **CAPS C390** Capstone Seminar 3
- **Major Electives** 6
- **Free Elective** 3

**Total Semester Hours** 120
Computer Engineering  
**Bachelor of Science Degree**

Chair: Ausif Mahmood  
Engineering Technology Building  
Telephone: (203) 576-4145  
Fax: (203) 576-4765  
E-mail: mahmood@bridgeport.edu

## Curriculum and Program Requirements

The ever increasing use of the computer in today’s world offers expanding opportunities in this field of specialization. This program provides a bridge between the disciplines of electrical engineering and computer science. Graduates can enter such fields as chip design, software engineering, robotics, and a variety of computer-controlled applications. This requires the development of the engineering approach through the understanding of engineering mathematics, digital and analog electronics and control, as well as computer-aided design (CAD) tools utilized to facilitate learning and implementation.

The graduate from this program will obtain the basic education in the first three years. The final year is utilized to explore specific areas of interest. One can choose a software oriented program including such areas as artificial intelligence, knowledge based systems and software design or a hardware oriented program pointing toward computer or integrated circuit design, robotics and networking.

The engineering approach and knowledge of computer structure are the attributes that make it unique. This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. A total of 132 semester hours are required for graduation.

## Program Objectives

Our Computer Engineering Graduates will:

- Be proficient in defining and solving engineering problems.
- Achieve expertise at developing engineering systems.
- Be effective communicators and team players.
- Appreciate diversity of opinion, understand ethical issues and demonstrate a commitment towards profession.
- Be prepared for lifelong careers and professional growth.

## Learning Outcomes

Our Computer Engineering Students will:

1. Demonstrate comprehension of math, science, and basic computer engineering topics.
2. Comprehend the design of computer architectures; and integrated systems having major hardware and software components.
3. Exhibit problem solving skills.
4. Have the ability to use techniques, skills, and modern engineering tools necessary for engineering practice.
5. Work effectively on teams.
6. Demonstrate the ability to identify and apply concepts of engineering economics and project planning.
7. Demonstrate knowledge of contemporary global and societal issues and their relationship to professional ethics and engineering solutions.
8. Demonstrate the ability to plan and conduct laboratory experiments and interpret and report the results.
9. Exercise strong oral and written communication skills including those needed for technical writing.
10. Have an awareness of the need for and demonstrate the ability to keep learning throughout life along with an appreciation of diversity in the world and in intellectual areas.

## Summary of Requirements

### Engineering Core Requirements

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<th>Course</th>
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<td>Digital System Design I</td>
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<td>CPEG 286</td>
<td>Microprocessor System Design I</td>
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<td>CPSC 101/101a</td>
<td>Introduction to Computing I</td>
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<td>ELEG 233/235</td>
<td>Electrical Engineering I w/lab</td>
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<tr>
<td>ENGR 111</td>
<td>Introduction to Engineering I</td>
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<td>ENGR 300</td>
<td>Econ. and Management of Engr Project</td>
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<td>MEEG 223</td>
<td>Materials Science for Engineers</td>
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<td>CPEG 312</td>
<td>Computer Organization</td>
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<tr>
<td>CPEG 315</td>
<td>Digital Systems Design II w/lab</td>
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<td>CPEG 387</td>
<td>Embedded System Design</td>
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<td>CPEG 347/348</td>
<td>Logic Synthesis/LSI Design</td>
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<td>CPEG 389</td>
<td>Software Engineering</td>
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<td>CPSC 227</td>
<td>Discrete Structures</td>
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<td>CPSC 234/236</td>
<td>Network Analysis II w/Lab</td>
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<td>CPSC 348</td>
<td>Electronics I</td>
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<td>CPSC 317</td>
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### Program Requirements

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<td>MATH 112</td>
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### General Education Requirements

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<td>Intro to Computing II (Data Structures &amp; Algorithms)</td>
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<td>PHYS 112</td>
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### Total Semester Hour

37

### 55

### 40

### 132

## Suggested Program

### First Semester

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### Second Semester

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</table>
**Computer Engineering Bachelor of Science Degree**

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*Technical Elective – This elective must be chosen from any senior level/graduate level course in CPEG /CPSC/ELEG like CPEG 371, CPEG 410, CPEG 415, CPEG 460, CPEG 472, CPEG 473, CPEG 540, CPSC 400, CPSC 440, ELEG 451, ELEG 458*
Today, computing is an enormously vibrant field. From its inception just half a century ago, computing has become the defining technology of our age. Computers are integral to modern culture and are the primary engine behind much of the world’s economic growth. The field, moreover, continues to evolve at an astonishing pace. New technologies are introduced continually, and existing ones become obsolete in the space of a few years. The rapid evolution of the discipline has a profound effect on computing education, affecting both content and pedagogy.

Computer science core courses provide basic coverage of algorithms, data structures, software design, concepts of programming languages, and computer organization and architecture. Theoretical foundations, problem analysis, and solution design are stressed within the program’s core materials. Students are exposed to a variety of programming languages and systems and become proficient in more than one higher-level language. A total of 130 semester hours is required for graduation.

**Program Objectives**

Our Computer Science Students will:

- Be proficient in defining and solving problems appropriate to computer science.
- Achieve expertise at developing software systems.
- Be effective communicators and team players.
- Appreciate diversity of opinion, understand ethical issues and demonstrate a commitment towards profession. Be prepared for lifelong careers and professional growth.

**Learning Outcomes**

Our Computer Science Students will:

1. Demonstrate comprehension of math, science, and basic computer science topics.
2. Have the ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems.
3. Exhibit problem solving skills.
4. Have the ability to use techniques, skills, and modern software tools necessary for professional practice.
5. Work effectively in teams.
6. Demonstrate the ability to identify and apply concepts of engineering economics and project planning.
7. Demonstrate knowledge of contemporary global and societal issues and their relationship to professional ethics and engineering solutions.
8. Demonstrate the ability to plan and conduct laboratory experiments and interpret and report the results.
9. Exercise strong oral and written communication skills including those needed for technical writing.
10. Demonstrate the ability to keep learning throughout life along with an appreciation of diversity in the world and in intellectual areas.

**Summary of Requirements**

**Mathematics Requirements**

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<td>MATH 314 or CPSC 340</td>
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**General Education Requirements**

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**Core Requirements**

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<tr>
<td>CPSC 301</td>
<td>Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 329</td>
<td>Fundamentals of Algorithms</td>
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<tr>
<td>CPSC 311</td>
<td>Computer Architecture</td>
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</tr>
<tr>
<td>CPSC 408</td>
<td>Operating Systems</td>
<td>3</td>
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<tr>
<td>CPSC 449</td>
<td>Senior Design Project</td>
<td>4</td>
</tr>
<tr>
<td>CPSC 450</td>
<td>Database Design</td>
<td>3</td>
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<tr>
<td>CPSC 471</td>
<td>Data and Computer Communications</td>
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<tr>
<td>CPSC 489</td>
<td>Software Engineering</td>
<td>3</td>
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<tr>
<td>CPSC Elective (3)</td>
<td>9</td>
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<tr>
<td>Technical Elective (2)</td>
<td>6</td>
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<tr>
<td>Free Elective</td>
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</table>

Total Semester Hours 130

**Suggested Program**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition &amp; Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>CPSC 101/101a</td>
<td>Intro. to Computing I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 111</td>
<td>Principles of Physics I</td>
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**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MATH 112</td>
<td>Calculus II</td>
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<tr>
<td>PHYS 112</td>
<td>Principles of Physics II</td>
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<tr>
<td>CPSC 102/102a</td>
<td>Introduction to Computing II (Data Structures)</td>
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<tr>
<td>INTST C101B</td>
<td>Computer Ethics</td>
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</table>
## Computer Science Bachelor of Science Degree

### THIRD SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CPSC 227</td>
<td>Discrete Structures</td>
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</tr>
<tr>
<td>MATH 215</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>PHYS/CHEM/BIOL</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>HUM</td>
<td>Humanities Core</td>
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<tr>
<td>CPSC 201</td>
<td>Advanced Data &amp; File Structures</td>
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### FOURTH SEMESTER

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<tbody>
<tr>
<td>MATH</td>
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<tr>
<td>CPSC 203</td>
<td>2nd Language</td>
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<tr>
<td>ENGL 204</td>
<td>Technical Writing For Computer Science</td>
<td>3</td>
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<tr>
<td>FA</td>
<td>Fine Arts Core</td>
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<tr>
<td>HUM</td>
<td>Humanities Core</td>
<td>3</td>
</tr>
<tr>
<td>CPEG 210</td>
<td>Digital System Design I</td>
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### FIFTH SEMESTER

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<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>CPSC 300</td>
<td>Economics &amp; Management of Computing Projects</td>
<td>3</td>
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<tr>
<td>MATH 323</td>
<td>Probability and Statistics</td>
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<tr>
<td>CPSC 301</td>
<td>Programming Languages</td>
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<tr>
<td>SOSC</td>
<td>Social Science Core</td>
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<tr>
<td>CPSC 329</td>
<td>Fundamentals of Algorithms</td>
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<tr>
<td>CPEG 286</td>
<td>Microprocessor System Design</td>
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### SIXTH SEMESTER

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<tr>
<td>CPEG 408</td>
<td>Operating Systems</td>
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<tr>
<td>CPSC</td>
<td>Humanities Elective I</td>
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<tr>
<td>CPSC</td>
<td>Elective I</td>
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<td>SOSC</td>
<td>Social Science Core</td>
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<tr>
<td>CPSC 311</td>
<td>Computer Architecture</td>
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<td>CPSC</td>
<td>Technical Elective I</td>
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### SEVENTH SEMESTER

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<th>Course</th>
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<td>CPSC 450</td>
<td>Database Design</td>
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<tr>
<td>CPEG 489</td>
<td>Software Engineering</td>
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<tr>
<td>CPEG 471</td>
<td>Data and Computer Communications</td>
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<td>CPSC Elective II</td>
<td>Technical Elective II</td>
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<td>CPSC 449A</td>
<td>Senior Design Project</td>
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### EIGHTH SEMESTER

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<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
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<tr>
<td>CPSC</td>
<td>Free Elective</td>
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<tr>
<td>CPSC Elective III</td>
<td>Humanities Elective II</td>
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<tr>
<td>CPSC 449B</td>
<td>Senior Design Project</td>
<td>3</td>
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</table>

**Total Semester Hours**: 130
Criminal Justice and Human Security
Bachelor of Arts Degree

Chair: William Lay
Carlson Hall, Room 227
Telephone: (203) 576-4202/4966
Fax: (203) 576-4967
E-mail: wlay@bridgeport.edu

Curriculum and Program Requirements

The College of Public and International Affairs’ B.A. in Criminal Justice and Human Security degree allows students interested in pursuing a career in criminal justice to develop expertise in the international dimensions of public safety. Students in the degree may choose from one of three areas of concentration:

- Human Security
- Comparative Justice
- Criminology

The degree requires two years of college-level study of a foreign language or demonstrated working competency in a foreign language. In addition to Spanish and French, students have the option of choosing from Arabic, Chinese, Japanese, Korean and Russian.

Interested students also have the option of earning a Master’s degree in Business Administration or in Global Development and Peace by completing a fifth year of study beyond the normal years.

UB Criminal Justice track students are also encouraged to take courses in Martial Arts.

Internships with law enforcement agencies are also available.

Learning Outcomes

The B.A. in Criminal Justice & Human Security have the following learning outcomes:

1. The B.A. in Criminal Justice & Human Security have the following learning outcomes:
2. Students will demonstrate the progressive acquisition of the oral, written critical thinking skills needed to succeed in graduate level study as well as the required skills for careers in domestic and international security.
3. Students will be able to identify the essential elements of criminal justice.
4. Students will be able to articulate the importance of Human Security and explore its impact on domestic and international security.
5. Students will demonstrate the language skills and intercultural understanding required for effective law enforcement in today’s globalized society.
6. Students will be able to describe the role played by religious, ideological, and cultural views; ethnic and tribal identities; and economic status in rationalizing criminal behavior.
7. Students will demonstrate an understanding of the role played in criminal behavior by socioeconomic inequalities and societal injustice, resulting from domestic and non-domestic events.
8. Students will be able to comment on the role played by non-state actors in areas such as the identification of norms, the acceptability of violence and terrorism in promoting policy changes and in preventing crime.

The Criminal Justice and Human Security program requires 39 semester credit hours including 18 credit hours in the program core, 15 credit hours in one of the concentrations, and an additional 6 credit hours in a diversity requirement (one course from each of the other two concentrations). The program will require students to show modern language competency in Arabic, Chinese, Korean, Japanese, Russian, French or Spanish through the intermediate level (four semesters). Students are required to complete 120 credit hours to graduate.

One of the three concentrations is required, plus an additional course from each of the other two concentrations.

Human Security Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSCI</td>
<td>Government and Politics Abroad</td>
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<tr>
<td>PSCI</td>
<td>UN Studies</td>
<td>3</td>
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<tr>
<td>PSCI</td>
<td>World Politics</td>
<td>3</td>
</tr>
<tr>
<td>CJHS/PSCI 215</td>
<td>International Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>PSCI</td>
<td>Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>Globalization</td>
<td>3</td>
</tr>
<tr>
<td>WREL</td>
<td>Religion and Genocide</td>
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(Other courses with Chair approval)

Comparative Justice Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSCI</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>CJHS</td>
<td>Law and Economics</td>
<td>3</td>
</tr>
<tr>
<td>PSCI</td>
<td>Intro to US Legal System</td>
<td>3</td>
</tr>
<tr>
<td>CJHS</td>
<td>Constitutional Law</td>
<td>3</td>
</tr>
<tr>
<td>CJHS/PSCI 350</td>
<td>Legal Advocacy</td>
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<tr>
<td>CJHS</td>
<td>Transnational Crime</td>
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(Other courses with Chair approval)

Criminology Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>SOC</td>
<td>Sociology of Deviance</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>Race, Class and Gender</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>SOC</td>
<td>Globalization</td>
<td>3</td>
</tr>
<tr>
<td>CJHS</td>
<td>Law Enforcement and Society</td>
<td>3</td>
</tr>
<tr>
<td>CJHS</td>
<td>Victimology</td>
<td>3</td>
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</tbody>
</table>

(Other courses with Chair approval)

* Subject to approval of the Department Chair; a student may choose an additional CJHS elective in lieu of the thesis.

Internships can be arranged through the Chair of Criminal Justice and Human Security or through the Office of the Dean of the College of Public and International Affairs.

MINOR IN CRIMINAL JUSTICE

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CJHS/SOC 118</td>
<td>Intro to Criminal Justice</td>
<td>3</td>
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<tr>
<td>CJHS</td>
<td>Human Security</td>
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<tr>
<td>Four additional CJHS courses</td>
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18

Concentration on Pre-Law

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>CJHS/SOC 118</td>
<td>Intro to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>PSCI</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>PSCI</td>
<td>UN Studies</td>
<td>3</td>
</tr>
<tr>
<td>PSCI</td>
<td>Constitutional Law</td>
<td>3</td>
</tr>
<tr>
<td>CJHS</td>
<td>Law Internship</td>
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</tbody>
</table>

15
Dental Hygiene  Associate in Science Degree

Dean: Dr. Marcia Lorentzen
Health Sciences Center, Room 411
Telephone: (203) 576-4138
Fax: (203) 576-4220
E-mail: marcial@bridgeport.edu

Curriculum and Program Requirements

As licensed professional oral health clinicians and educators, dental hygienists practice as members of the dental team, using knowledge of biomedical, dental, clinical, and social sciences to assist individuals and groups in achieving and maintaining optimum oral health. The hygienist provides preventive services, preliminary examinations, radiographs, sealants, non-surgical periodontal therapy, fluoride treatments, local anesthesia and patient education. As a specialist, the dental hygienist is an integral co-therapist in helping consumers prevent oral disease, arrest existing periodontal (gum) disease, and maintain oral health.

The curriculum of the Fones School of Dental Hygiene provides a broad educational preparation program with a combination of general education and dental hygiene courses. In addition to basic and dental science theory, the program provides education in prevention service and dental health education. Students enter the two-year clinical program following pre-requisites completed through a pre-dental hygiene year or as transfer students into the University.

Dental Hygiene clinic instruments and supplies are issued through the Fones School. These items are distributed throughout the clinical phase of the curriculum, the costs of which are included within the Dental Hygiene special fees.

During the second clinical year, the students receive skills-based education, not only at the Fones Dental Hygiene Health Center on campus, but also through assignments at clinical and educational facilities of school dental health programs, hospitals and community agencies. These assignments are directly supervised by Fones faculty. Students are responsible for providing their own transportation to community agencies.

All courses listed in the dental hygiene curriculum program for the Associate and/or Bachelor of Science degree are required for graduation. The Dental Hygiene student must earn a grade of “C” in all major courses. A student that earns a grade of C- or below in a course in the major field, must obtain a written statement from the School Dean specifying the procedure necessary to remedy the deficiency and remain in the major.

Enrollment in the second year is contingent on completing all first year requirements and achieving a cumulative QPR of 2.0.

Qualifications and procedures required of applicants to the Fones School are the same as those described in the chapter on Admissions. Dental Hygiene clinical courses begin in the fall term and the Associate’s degree curriculum is open only to full-time Dental Hygiene students. Clinical students are required to submit a physical, dental, visual acuity report and current cardiopulmonary resuscitation/recognition certification on an annual basis. Student must also submit evidence of Hepatitis B vaccine series seroconversion and PPD tuberculin test. All admitted students are subject to a background check. This procedure will be conducted by the outside agency Verified Credentials, Inc. All information is maintained confidentially.

Learning Outcomes

Through completion of the entry-level dental hygiene curriculum students will achieve the following outcomes:

• Characterize professionalism and responsibility in all health promotion and disease prevention activities.
• Apply a professional code of ethics while adhering to appropriate legal and regulatory measures when providing oral health services.
• Utilize critical thinking, problem solving, and evidence-based decision making in the dental hygiene process of care.
• Provide the dental hygiene process of care (assessment, dental hygiene diagnosis, planning, implementation, evaluation, documentation) for patients/clients in all settings.
• Communicate effectively with and deliver culturally competent, inter-professional health care to individuals and groups from diverse populations.
• Demonstrate the knowledge necessary to assess, plan, implement and evaluate community-based oral health programs.
• Continually perform self-assessment to maintain professional standards and encourage life-long learning.
• Value the need for personal and professional growth through participation in professional activities and associations.
• Understand and master the competencies of Dental Hygiene Professional Practice.

Students will demonstrate professionalism, ethical behavior, evidence-based decision making, competent client care, health promotion, and disease prevention. A set of competencies has been developed to verify ability to perform total client care and develop professionally. Students must demonstrate successful completion of these competencies in order to graduate. Completion of competencies confirm that the student has the ability to safely provide dental hygiene care at an entry level, or what is minimally expected in performance as a new graduate. As a licensed professional who continues in his/her career, experience and continued learning leads one in becoming proficient, or eventually, an expert in the delivery of care. The Fones School of Dental Hygiene Competencies are posted on the University Website.

Students learn the skills and knowledge necessary to function effectively as an integral member of the dental health team. The program utilizes the facilities of the University of Bridgeport Health Clinics Fones School of Dental Hygiene Health Center, area hospitals, and community health clinics. Specialized course work must be taken in the outlined sequence. DHYG designated courses are open to admitted dental hygiene students only. A minimum grade of C or better (74 or above) is required in ALL dental hygiene courses.
## Summary of Requirements

### Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHYG 123</td>
<td>Oral Anatomy and Embryology</td>
<td>4</td>
</tr>
<tr>
<td>DHYG 124</td>
<td>Dental Radiology</td>
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<tr>
<td>DHYG 127</td>
<td>Pharmacology for the Dental Hygienist</td>
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<tr>
<td>DHYG 129</td>
<td>Clinical Practice I</td>
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<tr>
<td>DHYG 130</td>
<td>Clinical Practice II</td>
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<tr>
<td>DHYG 140</td>
<td>Introduction to Periodontology</td>
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<td>DHYG 227</td>
<td>Clinical Practice III</td>
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<tr>
<td>DHYG 228</td>
<td>Clinical Practice IV</td>
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<td>DHYG 250</td>
<td>Local Anesthesia</td>
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<td>DHYG 252</td>
<td>Dental Public Health</td>
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<tr>
<td>DHYG 253</td>
<td>Oral and General Histo-Pathology</td>
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<td>DHYG 241</td>
<td>Periodontology</td>
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<td>DHYG 230</td>
<td>Dental Materials</td>
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<tr>
<td>DHYG 204</td>
<td>Nutritional Biochemistry</td>
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### General Education Requirements

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BIOL 106</td>
<td>Elementary Microbiology</td>
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<tr>
<td>BIOL 113-114</td>
<td>Anatomy and Physiology I/II</td>
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<td>ENGL C101</td>
<td>Composition &amp; Rhetoric</td>
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<td>FYS 101</td>
<td>First Year Seminar</td>
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<tr>
<td>MATH C105</td>
<td>Intermediate Algebra</td>
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<td>SOSC 101</td>
<td>Social Sciences Core</td>
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<tr>
<td>SOC 101</td>
<td>Principles of Sociology</td>
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</table>

Total Semester Hours: 73

### Program Prerequisites

<table>
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<th>Course Name</th>
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<tbody>
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<td>CHEM 113</td>
<td>Intro Chem w/lab or equivalent</td>
<td>4</td>
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<tr>
<td>BIOL 113-114</td>
<td>Anatomy and Physiology I/II</td>
<td>8</td>
</tr>
<tr>
<td>ENGL C101</td>
<td>Composition &amp; Rhetoric</td>
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<tr>
<td>MATH C105</td>
<td>Intermediate Algebra</td>
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### Suggested Program

#### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>DHYG 123</td>
<td>Oral Anatomy and Embryology</td>
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</tr>
<tr>
<td>DHYG 124</td>
<td>Radiology</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 129</td>
<td>Clinical Practice</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>Elementary Microbiology</td>
<td>4</td>
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#### Second Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>Pharmacology for the Dental Hygienist</td>
<td>3</td>
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<tr>
<td>DHYG 130</td>
<td>Clinical Practice II</td>
<td>4</td>
</tr>
<tr>
<td>DHYG 140</td>
<td>Introduction to Periodontology</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 204</td>
<td>Nutritional Biochemistry</td>
<td>3</td>
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<td>Comm, Hum, SocSc, FMC</td>
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#### Third Semester

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>DHYG 227</td>
<td>Clinical Practice III</td>
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<td>DHYG 230</td>
<td>Local Anesthesia</td>
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<td>DHYG 233</td>
<td>Oral and General Histo-Pathology</td>
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<td>DHYG 241</td>
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#### Fourth Semester

<table>
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<tr>
<td>DHYG 232</td>
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</tr>
<tr>
<td>SOC 101</td>
<td>Principles of Sociology</td>
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</table>

Total Semester Hours: 73

### Employment Opportunities

Upon completion of the dental hygiene curriculum, graduates are eligible to take the Dental Hygiene National Board Examination and licensure exams in every state, the District of Columbia, Puerto Rico, Canada and abroad. Graduates are eligible for positions in private dental offices, public health programs, school health programs, dental hygiene education and research. In addition, the dental hygiene program provides instruction in advanced procedures to broaden capabilities for clinical practice.

### Foness Dental Health Clinic Services

Preventive and therapeutic oral health services are provided by students in the dental health clinic. Services for the public include oral prophylaxis, x-rays, non-surgical treatment of periodontal (gum) disease, fluoride treatments, sealants and patient education in the care of the mouth. Individuals desiring information should inquire about the availability of services with the dental hygiene clinic receptionist at (203) 576-4137.
Dental Hygiene  
**Bachelor of Science Degree**

**Dean:** Marcia Lorentzen  
Health Sciences Center, Room 413  
Telephone: (203) 576-4138  
Fax: (203) 576-4220  
E-mail: marcia@bridgeport.edu

**Curriculum and Program Requirements**

Students in the Bachelor of Science Degree (B.S.) may integrate bachelor's courses with the clinical aspect of the Dental Hygiene curriculum or pursue a baccalaureate degree (B.S.) after completing clinical preparation at the Associate of Science/Certificate Level. This baccalaureate degree completion approach is available to Fones' students as well as graduates of other Dental Hygiene programs accredited by the American Dental Association Commission on Dental Accreditation.

Education at the baccalaureate level enhances the dental hygienist's opportunities, abilities, background and values. The professional dental hygiene curriculum is combined with a liberal arts education, and is designed to foster student growth, promote development of critical and ethical judgment, and encourage life-long learning. Upon satisfactory completion of semester hours in the areas of study specified, the student will be recommended for the degree of Bachelor of Science in Dental Hygiene.

**General Education Track**

This program option has been developed for students who have semester hours beyond the Associate's degree and are interested in a broad general education. Students have the opportunity to shape their own curriculum to meet personal career goals. The outcome of this planning process is an individualized program that enables the dental hygienist to gain desired knowledge and skills and directly transfer this expertise to a professional work setting. Students may identify a minor in such areas as human services, marketing and biology to name a few.

**Learning Outcomes**

In addition to the learning outcomes of the entry-level dental hygiene curriculum, through completion of the Bachelor of Science Degree in dental hygiene, students will achieve the following outcomes:

- Communicate effectively through written, oral, and electronic means
- Apply scientific inquiry to foster critical thinking and reflective reasoning in all initiatives
- Participate in domestic and global collaborative efforts that allow for expanded and/or alternative career opportunities
- Develop, lead, and manage programs and strategies responsive to the diverse cultural and ethnic values and traditions of the communities served
- Instill the desire to pursue graduate level education

**Summary of Requirements**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DHYG 123</td>
<td>Oral Anatomy and Embryology</td>
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<td>DHYG 124</td>
<td>Dental Radiology</td>
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<td>DHYG 127</td>
<td>Pharmacology for the Dental Hygienist</td>
<td>2</td>
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<tr>
<td>DHYG 129</td>
<td>Clinical Practice I</td>
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<tr>
<td>DHYG 130</td>
<td>Clinical Practice II</td>
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<td>DHYG 140</td>
<td>Introduction to Periodontology</td>
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<td>DHYG 227</td>
<td>Clinical Practice III</td>
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<td>DHYG 232</td>
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<td>DHYG 233</td>
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<td>DHYG 250</td>
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<td>DHYG 303</td>
<td>Advanced Clinical Concepts</td>
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<tr>
<td>DHYG 304</td>
<td>Dental Hygiene Internship</td>
<td>3-6</td>
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<td>DHYG 305</td>
<td>Dental Hygiene Research I</td>
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**PROGRAMS REQUIREMENTS**

**GENERAL EDUCATION REQUIREMENTS**

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<td>BIOL 113-114</td>
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<td>Composition &amp; Rhetoric</td>
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<td>SOC 101</td>
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<tr>
<td>MKTG 305</td>
<td>Principle of Marketing OR</td>
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<td>HUSU 201</td>
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**ELECTIVES**

9

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**Suggested Program**

**FIRST SEMESTER**

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<td>3</td>
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<td>Clinical Practice I</td>
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<td>Clinical Practice IV</td>
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<td>DHYG 230</td>
<td>Local Anesthesia</td>
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<td>DHYG 232</td>
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<td>DHYG 233</td>
<td>Oral and General Hist-Pathology</td>
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</tr>
<tr>
<td>DHYG 241</td>
<td>Periodontology</td>
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<td>DHYG 250</td>
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<td>Instructional Strategies for the Health Profes</td>
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<td>DHYG 303</td>
<td>Advanced Clinical Concepts</td>
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<tr>
<td>DHYG 304</td>
<td>Dental Hygiene Internship</td>
<td>3-6</td>
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<td>DHYG 305</td>
<td>Dental Hygiene Research I</td>
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<td>DHYG 306</td>
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<td>DHYG 400</td>
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**SECOND SEMESTER**

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<td>Introduction to Periodontology</td>
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<tr>
<td>BIOL 114</td>
<td>Anatomy and Physiology II</td>
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<td>BIOL 106</td>
<td>Microbiology</td>
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<td>ENGL 101</td>
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**THIRD SEMESTER**

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<td>DHYG 233</td>
<td>Oral and General Hist-Pathology</td>
<td>3</td>
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<tr>
<td>DHYG 241</td>
<td>Periodontology</td>
<td>2</td>
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<tr>
<td>DHYG 250</td>
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<td>DHY 204</td>
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**FOURTH SEMESTER**

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**FIFTH SEMESTER**

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<td>DHYG 302</td>
<td>Instructional Strategies for the Health Profes</td>
<td>3</td>
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<td>DHYG 400</td>
<td>Statistical Reasoning</td>
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<tr>
<td>SOSC 66</td>
<td>Social Sciences Core</td>
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</table>
# Dental Hygiene Bachelor of Science Degree

## SIXTH SEMESTER
- **DHYG 301** Dental Hygiene Practice Management 3
- **HUM** Humanities Core 3
- **DHYG 303** Advanced Clinical Concepts 3
- **FA** Fine Arts Core 3

### SUMMER
- **DHYG 304** Dental Hygiene Internship 3-6

## SEVENTH SEMESTER
- **HUSV 201** Introduction to Counseling 3
- **OR**
  - **MKTG 305** Principles of Marketing 3
  - Electives 6

## EIGHTH SEMESTER
- **DHYG 305** Dental Hygiene Research I 3
- Electives 6
- **CAPS C390** Capstone Seminar 3

### SUMMER
- **DHYG 306** Dental Hygiene Research II 4

**Total Semester Hours** 120-124
Dental Hygiene Bachelor of Science Degree Online Program

Online Coordinator: Dr. Wendy Garcia
Health Sciences Center, Room 417
Telephone: (203) 576-4141
Fax: (203) 576-4220
E-mail: wendyg@bridgeport.edu

Curriculum and Program Requirements

The online B.S. in Dental Hygiene from The Fones School of Dental Hygiene at the University of Bridgeport offers an opportunity for dental hygienists to further their education beyond the A.S. degree. Dental hygienists traditionally begin their professional work following completion of the A.S. degree. The University of Bridgeport's B.S. in Dental Hygiene online degree program makes it possible for dental hygienists to work toward a degree at any time, from anywhere in the world. The program is perfectly suited to adult learners who have the discipline for part-time, self-directed study under the guidance of qualified faculty in their field. The BSDH Online Program is identical to the on-campus degree completion program and is designed to be completed entirely online.

Students who hold an A.S. or certificate in Dental Hygiene from an institution accredited by the American Dental Association Commission on Dental Accreditation are eligible for admission. A maximum of 72 credits from accredited two-year colleges and 90 credits from accredited four-year institutions may be transferred. The program consists of 120 credit hours which include applicable transfer credits (60-90 credit hours), general education courses (40 credit hours), dental hygiene courses (22 credit hours), and elective courses (9 credit hours). The last 30 credit hours must be completed through the University of Bridgeport. The general education courses include University Core Requirements in English, Math, Fine Arts, Integrated Studies, Humanities, Natural Science, Social Science, and Capstone Seminar.

Students may take 2 online courses per 8-week session, which is equivalent to 12 credits per semester. As a new online student, a one-week New Student Orientation course is offered prior to the start of each 8-week session at no charge. Financial aid is available for qualified students taking at least 6 credits per semester.

Please visit www.bridgeport.edu/academics/undergraduate/dentalbs/options for additional information and an Application Form to download. You will be directed to request Official Transcripts from all schools attended – these are required in order to consider your acceptance into the program, as well as to evaluate courses taken previously and apply transfer credits to the course of study for the Bachelor's Degree in Dental Hygiene.

Learning Outcomes

In addition to the learning outcomes of the entry-level dental hygiene curriculum, through completion of the Bachelor of Science Degree in dental hygiene, students will achieve the following outcomes:

- Communicate effectively through written, oral, and electronic means
- Apply scientific inquiry to foster critical thinking and reflective reasoning in all initiatives
- Participate in domestic and global collaborative efforts that allow for expanded and/or alternative career opportunities
- Develop, lead, and manage programs and strategies responsive to the diverse cultural and ethnic values and traditions of the communities served
- Instill the desire to pursue graduate level education

INSTRUCTIONAL FORMAT

The online B.S. in Dental Hygiene is offered in a format that makes classes available 24 hours and day, 7 days a week. Courses are designed for working professionals and can be completed entirely online, from home or at work. Our online instructors are practicing professionals or UB faculty members – experienced educators who are your partners in a dynamic and interactive educational environment. The online inter-

MINIMUM COURSE REQUIREMENTS

- A PC or Macintosh system
- PC with Windows Vista or higher, Mac OSx10, 5.2 or higher
- Word processor, printer, CD-ROM
- Reliable Internet access
- E-mail
- Web camera and microphone

ONLINE ORIENTATION

All students participate in an online orientation prior to beginning the program. During the orientation, students are given instructions on how to navigate the Blackboard course management system, strategies for being a successful online student, and access to other University resources, including the Wahlstrom Library's electronic databases. Successful completion of the orientation is required of all new students in the online program.
Electrical Engineering  Bachelor of Science Degree

Chair: Navarun Gupta
Engineering Technology Building
Telephone: (203) 576-4117
Fax: (203) 576-4117
E-mail: navarung@bridgeport.edu

Curriculum and Program Requirements

Electrical Engineering is the basis of Computer Engineering, Computer Science, and Biomedical Engineering. We tend to be excited by the breakthroughs in smart phones, i-pads/minicomputer, improved medical machinery, GPS, and a host of other gadgets that make our modern life more exciting and more comfortable. Electrical Engineering is the field that gives us the applied science to build all of these gadgets. It is also the field from which the knowledge will come for the creation of new gadgets and for the improvement of present-day machine.

Since it is a universal degree, the BSEE graduate is flexible – the graduate can bend their talents to satisfy the needs of an ever-changing needs technology. This promotes job security for the graduate, and it feeds the appetite of an advancing society.

The graduate of this program will obtain the basic education in the first three years. The last year is utilized to explore specific areas of interest. Our graduates will have expertise in at least one sub-field of Electrical Engineering such as electricity, machines/controllers, energy/power, signals/communications, materials, and electronic device analysis.

Program Objectives

Graduates of the University of Bridgeport’s Electrical Engineering program will be able to:

1. The final outcome of this degree is the ability of the graduate to obtain a job they might not otherwise have obtained.
2. The graduate is able to understand technology, particularly engineering principles and to communicate these principles with others, both verbally and through the writing of technical reports.
3. The graduate can use this degree as an aid for future advancement to obtain the MSEE (for example) or any other technical degree that rests on the foundation of the BSEE.
4. The graduate is a strong asset to a society that is ever more becoming dependent on technology and science for its development and growth.

Learning Outcomes

Graduates of the University of Bridgeport’s Electrical Engineering program will be able to:

1. Our graduates will understand the basics of classical Electrical Engineering – they will have the ability to design and analyze electronic circuit diagrams.
2. Our graduates will be trained in writing technical reports, especially as these reports apply to issues of electricity, machines/controllers, energy/power, signals/communications, materials, and electronic device analysis. They will also be good “book keepers” of data and incidents related to the study of a particular problem or task.
3. Our graduates will be able to use the computer for scientific analysis. This includes problem solving and data collection/analysis.
4. Our graduates will be able to design and build circuits/devices in a laboratory setting and analyze same.
5. Our graduates will have expertise in at least one sub-field of Electrical Engineering, and they will have a general knowledge of many other topics in Electrical Engineering and other branches of engineering, including many topics that are not in their field of expertise.

ENGINEERING CORE REQUIREMENTS

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<th>Course</th>
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<tbody>
<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
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<td>ELEG 210</td>
<td>Digital System Design I</td>
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<td>ELEG 286</td>
<td>Microprocessor System Design</td>
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<td>CPSC 101/101a</td>
<td>Introduction to Computing I</td>
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<td>ENGR 111</td>
<td>Introduction to Engineering I</td>
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<td>ENGR 300</td>
<td>Econ. and Management of Engr Project</td>
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<tr>
<td>MATH 215</td>
<td>Calculus III</td>
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PROGRAM REQUIREMENTS

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<td>CPEG 315</td>
<td>Digital Systems Design II w/lab</td>
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<td>ELEG 233/235</td>
<td>Network Analysis I w/lab</td>
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<td>ELEG 234/236</td>
<td>Network Analysis II w/Lab</td>
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<td>ELEG 346</td>
<td>MEMS</td>
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<td>ELEG 348</td>
<td>Electronics I</td>
<td>3</td>
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<td>ELEG 353/356/359</td>
<td>Communications</td>
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<td>ELEG 317</td>
<td>Controls</td>
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<td>ELEG 333</td>
<td>Signals and Systems</td>
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<td>ELEG 364</td>
<td>Programmable Logic Control</td>
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<td>ELEG 349</td>
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GENERAL EDUCATION REQUIREMENTS

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Total Semester Hours 120
## Electrical Engineering Bachelor of Science Degree

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<td>Math 112</td>
<td>Calculus II</td>
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<td>Chem 103</td>
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<tr>
<td>EE 233</td>
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<td>EE 235</td>
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<td>Math 301</td>
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<td>EE 210</td>
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<tr>
<td>EE 317</td>
<td>Controls</td>
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<tr>
<td>EE Communications course</td>
<td>(Can substitute EE 460)</td>
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<td>EE 315</td>
<td>Communications course</td>
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<td>EE 316/416</td>
<td>EE 350/450</td>
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<td>EE 348</td>
<td>Electronics</td>
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<td>EE 286</td>
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<td>EE 364</td>
<td>Programmable Logic control</td>
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<td>EE 346</td>
<td>MEMS (Microelectromechanical systems)</td>
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<td>Senior Design Project</td>
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Total Credit Hours: 120
English Bachelor of Arts Degree

Chair: Dr. Diane Krumrey
Bryant Hall
Telephone: (203) 576-2381
Fax: (203) 576 4051
E-mail: dkrumrey@bridgeport.edu

With a bachelor's degree in English, students will gain knowledge of American, British, and world literature as they develop proficiency in written communication. It is an excellent choice for students who enjoy literature and want to develop the essential skills of reading, independent critical thinking, and polished writing and analysis.

For the Bachelor of Arts degree, students may choose concentrations in either Literature or Creative Writing. Both concentrations provide excellent preparation for graduate study.

Literature courses require extensive writing and critical analysis of texts, as well as giving students a culturally rich and historically aware perspective. Creative writing classes introduce students to the genres of writing available to them and prepare them for the competitive world of professional writing.

Learning Objectives

Graduates of the University of Bridgeport’s English program will be able to:

1. have a familiarity with American and British literature, specifically, representative works and authors, major literary periods, and historical and cultural contexts.
2. be able to critically discuss and analyze works within different literary genres.
3. have skill in writing detailed interpretive essays combining research with critical analysis.
4. be able to write in different academic and professional modes and to successfully and independently edit written work.
5. demonstrate knowledge of the accepted forms for submitting written work in academia, the professions, and different media.

Curriculum and Program Requirements

BA in English: Literature

Group I (15 credits)
15 credits from the following courses:
- ENGL 207 American Literature I 3
- ENGL 208 American Literature II 3
- ENGL 209 British Literature I 3
- ENGL 210 British Literature II 3
- ENGL 212 Masterpieces of World Literature 3
- ENGL 305 Shakespeare 3

Group II (15 credits)
15 credits of literature electives at the 200 or 300 level.
- Students may substitute one literature elective at the 100 level and ENGL 322 (Understanding English Grammar) for 6 of these credits.
- Senior Thesis (3 credits)
  - ENGL 397 Senior Thesis 3

History Requirement (6 credits)
- American History Elective 3
- English or World History Elective 3

Modern Language Requirement (12 credits)
- Demonstrated proficiency in a modern language other than English at the 104 level.
- Free Electives (27 credits)

GENERAL EDUCATION REQUIREMENTS

Core Curriculum (33 credits)
- ENGL 101 Composition & Rhetoric 3
- FYS 101 First Year Seminar 3
- MATH 105 Intermediate Algebra 3
- Fine Arts Fine Arts Core Elective 3
- Humanities Humanities Core Electives 3
- Natural Sciences Natural Science Core Electives 3
- Social Sciences Social Science Core Electives 3
- ENGL 322 (Understanding English Grammar) for 6 of these credits.
- Liberal Arts Electives (9 credits)

BA in English: Creative Writing

Group I (15 credits)
- ENGL 201 Creative Writing 3
- ENGL 205 Poetry Writing 3
- ENGL 218 Autobiographical Writing 3
- ENGL 308 Advanced Creative Writing 3
- ENGL 309 Seminar in Creative Writing 3

Group II (12 credits)
12 credits from the following courses:
- ENGL 207 American Literature I 3
- ENGL 208 American Literature II 3
- ENGL 209 British Literature I 3
- ENGL 210 British Literature II 3
- ENGL 212 Masterpieces of World Literature 3
- ENGL 305 Shakespeare 3

Group III (9 credits)
- 9 credits of literature courses at the 200 and 300 level.
- Students may substitute a 100-level course as well as ENGL 322 (Understanding English Grammar) for 6 of these credits.

Modern Language Requirement (12 credits)
- Demonstrated proficiency in a modern language other than English at the 104 level.
- Free Electives (30 credits)

GENERAL EDUCATION REQUIREMENTS

Core Curriculum (33 credits)
- ENGL 101 Composition & Rhetoric 3
- FYS 101 First Year Seminar 3
- MATH 105 Intermediate Algebra 3
- Fine Arts Fine Arts Core Elective 3
- Humanities Humanities Core Electives 6
- Natural Sciences Natural Science Core Electives 6
- Social Sciences Social Science Core Electives 6
- ENGL 322 (Understanding English Grammar) for 6 of these credits.
- Liberal Arts Electives (9 credits)

Suggested Program

BA in English: Literature

SEMESTER 1
- ENGL 101 Composition & Rhetoric 3
- FYS 101 First Year Seminar 3
- MATH 105 Intermediate Algebra 3
- ENGL 322 (Understanding English Grammar) for 6 of these credits.
- Liberal Arts Electives (9 credits)

SEMESTER 2
- ENGL 101 Composition & Rhetoric 3
- FYS 101 First Year Seminar 3
- MATH 105 Intermediate Algebra 3
- Social Science Core Electives 6
- Fine Arts Fine Arts Core Elective 3
- Free Electives 3

SEMESTER 3
- ENGL 207 American Literature I 3
- ENGL 208 American Literature II 3
- HUM Humanities Core Elective 3
- Social Science Core Elective 3
- Modern Language Requirement (12 credits)
- Demonstrated proficiency in a modern language other than English at the 104 level.
- Liberal Arts Electives (9 credits)

SEMESTER 4
- ENGL 207 American Literature I 3
- ENGL 208 American Literature II 3
- Modern Language Requirement (12 credits)
- Demonstrated proficiency in a modern language other than English at the 104 level.
- Liberal Arts Electives (9 credits)

SEMESTER 5
- ENGL 207 American Literature I 3
- ENGL 208 American Literature II 3
- Modern Language Requirement (12 credits)
- Demonstrated proficiency in a modern language other than English at the 104 level.
- Liberal Arts Electives (9 credits)
## English Bachelor of Arts Degree

### Semester 6

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<tr>
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<td>British Literature I</td>
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<td>ENGL</td>
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<td>English Elective for Major</td>
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<tr>
<td>ML</td>
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<td>Modern Language 104</td>
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<td>Shakespeare</td>
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### BA in English: Creative Writing

### Semester 1

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<td>First Year Seminar</td>
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<td>MATH 105</td>
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<td>Intermediate Algebra</td>
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<td>ENGL 201</td>
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<td>Creative Writing</td>
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<td>ENGL 207</td>
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<td>American Literature I</td>
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<td>World Masterpieces of Literature</td>
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<td>Literature Elective for Major</td>
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<td>ML 103</td>
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<td>Shakespeare</td>
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<td>ENGL 308</td>
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<td>Advanced Creative Writing</td>
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<td>ML 104</td>
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<td>Modern Language 104</td>
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<td>Shakespeare</td>
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<td>ENGL 308</td>
<td></td>
<td>Advanced Creative Writing</td>
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<td>ML 104</td>
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English Bachelor of Science Degree

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Literature courses require extensive writing and critical analysis of texts, as well as giving students a culturally rich and historically aware perspective. Creative writing classes introduce students to the genres of writing available to them and prepare them for the competitive world of professional writing.

Learning Objectives
Graduates of the University of Bridgeport’s English program will be able to:

1. have a familiarity with American and British literature, specifically, representative works and authors, major literary periods, and historical and cultural contexts.
2. be able to critically discuss and analyze works within different literary genres.
3. have skill in writing detailed interpretive essays combining research with critical analysis.
4. be able to write in different academic and professional modes and to successfully and independently edit written work.
5. demonstrate knowledge of the accepted forms for submitting written work in academia, the professions, and different media.

Curriculum and Program Requirements

BS in English: Literature

Group I (15 credits)
15 credits from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 207</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 208</td>
<td>American Literature II</td>
<td>3</td>
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<tr>
<td>ENGL 209</td>
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<td>3</td>
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<tr>
<td>ENGL 210</td>
<td>British Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 212</td>
<td>Masterpieces of World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 305</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
</tbody>
</table>

Group II (15 credits)
15 credits of literature electives at the 200 or 300 level.

BS in English: Creative Writing

Group I (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>ENGL 205</td>
<td>Poetry Writing</td>
<td>3</td>
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<tr>
<td>ENGL 218</td>
<td>Autobiographical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Advanced Creative Writing</td>
<td>3</td>
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<tr>
<td>ENGL 309</td>
<td>Seminar in Creative Writing</td>
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Group II (12 credits)
12 credits from the following courses:

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<td>ENGL 305</td>
<td>Shakespeare</td>
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Suggested Program

BS in English: Literature
The same requirements as those for a BA in English: Literature without the modern language requirement, leaving a student with 39 credits of free electives.

GENERAL EDUCATION REQUIREMENTS

Core Curriculum (33 credits)

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<td>Social Sciences</td>
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<tr>
<td>CAPS 390</td>
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<td>Free Electives (39)</td>
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SEMESTER 1

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SEMESTER 2

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<td>ENGL 212</td>
<td>Masterpieces of World Literature</td>
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SEMESTER 3

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<td>ENGL 212</td>
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SEMESTER 4

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### English Bachelor of Science Degree

#### SEMESTER 5
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<tr>
<td>ENGL 208</td>
<td>American Literature II</td>
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<td>ENGL</td>
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<tbody>
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<td>ENGL 209</td>
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<td>English Elective for Major</td>
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#### SEMESTER 7
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<td>ENGL 212 or 305</td>
<td>World Literature or Shakespeare</td>
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<td>Capstone Seminar</td>
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### BS in English: Creative Writing

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</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition &amp; Rhetoric</td>
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<td>FYS 101</td>
<td>First Year Seminar</td>
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<tr>
<td>MATH 105</td>
<td>Intermediate Algebra</td>
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<tr>
<td>ENGL 201</td>
<td>Creative Writing</td>
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#### SEMESTER 2
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<tbody>
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<td>Literature Elective for Major</td>
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<td>FA</td>
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<tr>
<td>ENGL 218</td>
<td>Autobiographical Writing</td>
<td>3</td>
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<tr>
<td>ENGL 207 or 208</td>
<td>American Literature I or II</td>
<td>3</td>
</tr>
<tr>
<td>NAT SCI</td>
<td>Natural Science Core Elective</td>
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</tr>
<tr>
<td>SOC SCI</td>
<td>Social Science Core Elective</td>
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#### SEMESTER 4
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<tbody>
<tr>
<td>ENGL 205</td>
<td>Poetry Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 209</td>
<td>British Literature I</td>
<td>3</td>
</tr>
<tr>
<td>or 219</td>
<td>British Literature II</td>
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<td>HUM</td>
<td>Humanities Core Elective</td>
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#### SEMESTER 5
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<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 212</td>
<td>World Masterpieces of Literature</td>
<td>3</td>
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#### SEMESTER 6
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<tr>
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<td>Free Electives</td>
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</tbody>
</table>
Fashion Merchandising  Associate in Arts Degree

Chair: Patricia Rigia
Telephone: (203) 576-4098
Fax: (203) 576-4099
E-mail: rigia@bridgeport.edu

Curriculum and Program Requirements

Fashion Merchandising offers a two-year Associate’s degree program in Fashion Merchandising and Retailing for individuals interested in pursuing careers within the diversified fashion field. The programs of study are arranged so that the student, after earning an Associate in Arts degree, may go on to complete the Bachelor of Science degree requirements with full credit for all earned semester hours. Refer to the Fashion Merchandising and Retailing four-year program in this Catalog.

In addition to formal class work, the student is required to participate in a supervised industry internship program with approved retail organizations that include many prestigious New York City stores. Other important aspects of the program are: fashion show productions; resident buying office workshops; field trips to the New York market, trade shows, museums, manufacturers, and textile plants at a nominal cost to student. On-campus seminars are led by outstanding industry personnel.

All students must fulfill a supervised industry internship between Thanksgiving and Christmas of their sophomore fall semester. The retail organization within which they will work is selected by the faculty of the Fashion Merchandising and Retailing Program. A student must have earned a 2.5 QPR to obtain junior status in the Program. The degree will not be granted to students who receive less than “C” in Retailing 280. The degree will not be granted to students receiving more than one “D” in any Fashion Merchandising and Retailing course.

Learning Outcomes

LEARNING OBJECTIVES

Students 1) acquire the basic technical skills necessary for work in the fashion merchandising field; 2) understand basic principles of fashion merchandising; 3) learn how to effectively communicate with others in their organization; and 4) understand the trends in the current fashion merchandising business.

ASSESSMENT

Students will be evaluated with a standardized exam at the end of their two-year program and with projects in their courses.

Summary of Requirements

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>FM 101</td>
<td>Fashion Fundamentals</td>
<td>3</td>
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<td>FM 108</td>
<td>Product Knowledge –</td>
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<tr>
<td></td>
<td>Fashion Accessories</td>
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<td>FM 270</td>
<td>Fashion Show</td>
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<td>RETL 180</td>
<td>Seminar in Professional Development</td>
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<td>RETL 201</td>
<td>Retail Adver. &amp; Fashion Promotion</td>
<td>3</td>
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<td>RETL 202</td>
<td>Retailing Math</td>
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<td>RETL 203</td>
<td>Fashion &amp; Retail Buying I</td>
<td>3</td>
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<td>RETL 205</td>
<td>Textiles I</td>
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<td>RETL 207</td>
<td>Strategy of Selling</td>
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GENERAL EDUCATION REQUIREMENTS

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Total Semester Hours 63

Suggested Program

FIRST SEMESTER

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SECOND SEMESTER

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THIRD SEMESTER

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<td>RETL 207</td>
<td>Strategies of Selling</td>
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FOURTH SEMESTER

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<td>MCOM 111</td>
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<td>SOSC</td>
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Total Semester Hours 63
Fashion Merchandising Bachelor of Science Degree

Chair: Patricia Rigia
Mandeville Hall, Room 23
Telephone: (203) 576-4098
Fax: (203) 576-4099
E-mail: rigia@bridgeport.edu

Curriculum and Program Requirements

The Bachelor of Science degree is required by an increasing number of organizations for eligibility to participate in their executive training programs. This curriculum is designed so that the student may declare a minor (usually 18 semester hours) in suggested related studies such as mass communication or art & design.

All students must fulfill a supervised industry internship between Thanksgiving and Christmas of their sophomore fall semester. The retail organization in which they will intern is selected by the faculty of the Fashion Merchandising and Retailing Program. A student must have earned a 2.5 QPR to obtain junior status in the Program.

In addition to formal class work, the student is required to participate in a supervised industry internship program with approved retail organizations that include many prestigious New York City stores. Other important aspects of the program are; fashion show productions; resident buying office workshops; field trips to the New York market, trade shows, museums, and manufacturers, at a nominal cost to the student. On-campus seminars are led by accomplished individuals drawn from the industry.

The degree will not be granted to students who receive less than “C” in Retailing 280. The degree will not be granted to students receiving more than one “D” in any Fashion Merchandising or Retailing course.

Study Abroad Semester

The Fashion Merchandising and Retailing Department is affiliated with several Study Abroad Programs. Students may attend the London College of Fashion, the University of Florence, Italy or programs offered through Global Learning Semesters. This off-campus semester enables B.S. degree students to participate in a couture study week in Paris plus retail experiences in other countries. Students who wish to participate in this affiliated Study Abroad Program are advised to make application in their sophomore year for the Fall or Spring semester of their junior or senior year. Electives for the B.S. degree are satisfied by all study abroad program semester hours with approval of the Department. Students with prior internship experience who participate in the Spring semester abroad may opt for a Summer co-op experience in Europe.

Minor Option

Students enrolled in other majors at the University of Bridgeport may declare a minor status if they complete a minimum of 18 semester hours in the following areas: 3 to 9 semester hours may be elected from the following: Fashion Merchandising or Retailing 101, 107, 108, 201, 6 to 9 semester hours from the following: Retailing 102, 207; 3 semester hours from the following: Retailing 300, 303, or 313.

Transfer Students

The Fashion Merchandising and Retailing B.S. degree program easily accommodates transfer students. No courses below a “C” grade are transferable. Transfer Articulation Agreements are in effect with Dean College (MA), Bay Path College (MA), Nassau Community College (NY), Dutchess (NY) and Westchester Community College, Middletown Community College (CT), Fisher College (MA), Holyoke Community College (MA), Orange County Community College (NY), County College of Morris (NJ), and Lincoln College (CT).

Learning Outcomes

LEARNING OBJECTIVES:

Students 1) acquire the technical skills necessary for work in the fashion merchandising field; 2) acquire knowledge of fashion merchandising principles; 3) learn how to effectively communicate with others within and outside of their organization; and 4) develop real world knowledge and understanding of the current fashion world.

ASSESSMENT:

Student will be evaluated with a standardized exam related to fashion merchandising at the end of their undergraduate studies. Students will also be evaluated with projects in their final courses.

Summary of Requirements

<table>
<thead>
<tr>
<th>CREDITS</th>
<th>Requirements</th>
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<tbody>
<tr>
<td>48</td>
<td>General Education Requirements</td>
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<tr>
<td>57</td>
<td>Fashion Merchandising Program Requirements</td>
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GENERAL EDUCATION REQUIREMENTS

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<td>or MCOM 110 Public Speaking</td>
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PROGRAM REQUIREMENTS

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<td>RETL 180 Seminar in Professional Development</td>
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<td>RETL 201 Retail Advert. &amp; Fashion Promotion</td>
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<td>RETL 310 Inter. Fashions and Furnishings</td>
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Summary of Requirements

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Learning Outcomes

LEARNING OBJECTIVES:

Students 1) acquire the technical skills necessary for work in the fashion merchandising field; 2) acquire knowledge of fashion merchandising principles; 3) learn how to effectively communicate with others within and outside of their organization; and 4) develop real world knowledge and understanding of the current fashion world.
### REQUIRED COGNATE COURSES

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### Suggested Program

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#### FOURTH SEMESTER

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<td>RETL 201</td>
<td>Retail Advertising and Fashion Promotion</td>
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<td>Buyers Math</td>
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#### FIFTH SEMESTER

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<td>ACCT 101</td>
<td>Financial Accounting</td>
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<td>RETL 300</td>
<td>Mass Merchandising/Marketing</td>
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<td>RETL 307</td>
<td>Surface Design I</td>
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<td>Principles of Marketing</td>
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#### SIXTH SEMESTER

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<td>RETL 313</td>
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### SEVENTH SEMESTER

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<td>Natural Sciences Core</td>
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<td>RETL 330</td>
<td>International Fashion/Marketing</td>
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### EIGHTH SEMESTER

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<td>FM 305</td>
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### Program Options

#### MINOR IN MASS COMMUNICATION

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<td>MCOM1111</td>
<td>Intro Mass Comm</td>
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<td>MCOM247</td>
<td>Fashion Journalism</td>
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<td>MCOM270</td>
<td>Public Relations</td>
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<td>MCOM339</td>
<td>Advertising and P.R.</td>
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<td>MCOM341</td>
<td>Magazine and Feature Writing</td>
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#### MINOR IN ART & DESIGN

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<td>ADSN 103</td>
<td>2D Design</td>
<td>3</td>
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<td>Intro Cptr Apps (Photoshop)</td>
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<td>Intro Cptr Apps (Illustrator)</td>
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<td>ADSN 117</td>
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#### MINOR IN MARKETING

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**Fashion Merchandising Bachelor of Science Degree**
Finance Bachelor of Science Degree

Undergraduate Program Director:
Tim Raynor
Mandeville Hall: 304
Telephone: (203) 576-4687
Fax: (203) 576-4388
E-mail: traynor@bridgeport.edu

Faculty Contact: Professor Gew-rae Kim
Mandeville Hall, Room 6
(203) 576-4372
E-mail: gewraek@bridgeport.edu

Curriculum and Program Requirements

The Bachelor of Science in Finance provides an integrated view of the theoretical and practical aspects of finance for those who are preparing for careers in financial management, financial institutions, financial markets, law, government service, and related fields.

Essential skills in problem-solving are developed with emphasis on wealth maximization. Financial problems are viewed from both their micro-financial and macro-financial aspects.

The Finance major includes the subject areas of corporate financial management, banking, and investments. The program provides an integrated view of the theoretical and practical aspects of Finance for those who are preparing for careers in financial management, financial institutions, financial markets, law, government service, and related fields.

Learning Outcomes

LEARNING OBJECTIVES

Students 1) learn financial concepts that provide the basis for careers in finance; 2) develop the technical and analytical skills necessary for financial analysis; 3) learn how to effectively communicate financial information; and 4) understand the role of finance in an organizations’ pursuit of its goals.

ASSESSMENT

Financial concepts and technical and analytical skills are evaluated with exams, assignments, papers, cases, and projects. Students will be evaluated with a standardized finance test. Students’ financial knowledge and skills also will be tested when they begin and finish the Finance program with a program specific exam.

Summary of Requirements

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<td>LAW 251 Business Law I 3</td>
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<td>MGMT 350 Business Policy and Strategy 3</td>
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<td>ECON 375 International Business Economics 3</td>
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<td>ECON 376 Business Forecasting 3</td>
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<td>FIN 345 Management of Financial Institutions 3</td>
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<td>FIN 365 Advanced Financial Management 3</td>
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<td>FIN 366 Cases in Finance 3</td>
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| **SECOND SEMESTER** |
| ECON 201 Principles of Economics - Micro 3 |
| CAIS 102 Applied Statistics 3 |
| SCI Natural Science Core 3 |
| **3** | Total Semester Hours |

| **THIRD SEMESTER** |
| ECON 202 Principles of Economics - Micro 3 |
| CAIS 201 Introduction to CAIS 3 |
| SCI Natural Science Core 3 |
| **3** | Total Semester Hours |

| **FOURTH SEMESTER** |
| ECON 201 Principles of Economics - Macro 3 |
| CAIS 201 Introduction to CAIS 3 |
| SCI Natural Science Core 3 |
| **6** | Total Semester Hours |

| **FIFTH SEMESTER** |
| FYS 101 First Year Seminar 3 |
| MGMT 301 Operations Management 3 |
| HUM Humanities Core 3 |
| **3** | Total Semester Hours |

| **SIXTH SEMESTER** |
| MGMT 305 Principles of Marketing 3 |
| MGMT 342 Multinational Marketing 3 |
| SCI Natural Science Core 3 |
| **3** | Total Semester Hours |

| **SEVENTH SEMESTER** |
| FIN 321 Investment Principles 3 |
| BUAD 382 Senior Project/Internship 3 |
| **6** | Total Semester Hours |

| **EIGHTH SEMESTER** |
| MGMT 350 Business Policy and Strategy 3 |
| CAPS C390 Capstone Seminar 3 |
| **6** | Total Semester Hours |

<table>
<thead>
<tr>
<th><strong>FINANCE ELECTIVES (Select 12 credits)</strong></th>
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<tbody>
<tr>
<td>ECON 311 Managerial Economics 3</td>
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<tr>
<td>ECON 375 International Business Economics 3</td>
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<td>ECON 376 Business Forecasting 3</td>
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<tr>
<td>FIN 345 Management of Financial Institutions 3</td>
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<tr>
<td>FIN 365 Advanced Financial Management 3</td>
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<tr>
<td>FIN 366 Cases in Finance 3</td>
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<tr>
<th><strong>FREE ELECTIVES</strong></th>
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<table>
<thead>
<tr>
<th><strong>SUMMARY OF REQUIREMENTS</strong></th>
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<tbody>
<tr>
<td>PROGRAM REQUIREMENTS <strong>42</strong></td>
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<tr>
<td>FREE ELECTIVES <strong>15</strong></td>
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<thead>
<tr>
<th><strong>GENERAL EDUCATION REQUIREMENTS</strong></th>
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<tbody>
<tr>
<td>ENGL C101 Composition &amp; Rhetoric 3</td>
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<tr>
<td>FYS 101 First Year Seminar 3</td>
</tr>
<tr>
<td>MATH C105 Intermediate Algebra 3</td>
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<tr>
<td>SCI Natural Sciences Core 6</td>
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<tr>
<td>HUM Humanities Core 6</td>
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<tr>
<td>ECON 201 Principles of Economics - Macro 3</td>
</tr>
<tr>
<td>ECON 202 Principles of Economics - Micro 3</td>
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<tr>
<td>ENG 202 Advanced Composition 3</td>
</tr>
<tr>
<td>FA Fine Arts Core 3</td>
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<tr>
<td>CAPS 390 Capstone Seminar 3</td>
</tr>
<tr>
<td>SOSC Social Sciences Core 6</td>
</tr>
<tr>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>
General Studies  Associate in Arts Degree

Advisor: Edward Geist  
Charles Dana Hall  
Telephone: (203) 576-4956  
Fax: (203) 576-4051  
E-mail: edwgeist@bridgeport.edu

Curriculum and Program Requirements

The student enrolled in the Associate in Arts in General Studies program may plan a completely individual program leading to the Associate in Arts degree. There are no specific requirements for the Associate in Arts degree in General Studies except a total of 60 semester hours, a 2.0 minimum QPR, and the following course and elective requirements: English C101, Math C105, First Year Seminar, 2 additional University core courses, and 2 electives from the Humanities, Sciences, or Social Sciences.

Learning Outcomes

By completing the program in General Studies, students will: 1) be able to communicate effectively in writing so that one may advance professionally and apply to graduate programs; 2) be able to comprehend, analyze, and interpret texts in a variety of disciplines; 3) be able to present orally one’s own thoughts and plans; 4) be able to recognize a problem and devise a plan of action to solve it; 5) be able to show mastery of several disciplines within an academic area of concentration; and 6) demonstrate an ethical mind-set and exercise professional responsibility in a global context.

Summary of Requirements

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>39</th>
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<tbody>
<tr>
<td>Electives</td>
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<tr>
<td>GENERAL EDUCATION REQUIREMENTS</td>
<td></td>
</tr>
<tr>
<td>ENGL C101 Composition &amp; Rhetoric</td>
<td>3</td>
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<tr>
<td>MATH C105 Intermediate Algebra</td>
<td>3</td>
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<tr>
<td>FYS 101 First Year Seminar</td>
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<tr>
<td>Liberal Arts Electives</td>
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<tr>
<td>Core Electives</td>
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<td>Total Semester Hours</td>
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</table>

Suggested Program

**FIRST SEMESTER**

- ENGL C101 Composition & Rhetoric 3
- MATH C105 Intermediate Algebra 3
- FYS 101 First Year Seminar 3
- Electives 6

**SECOND SEMESTER**

- Core Elective 3
- Liberal Arts Elective 3
- Electives 9

**THIRD SEMESTER**

- Core Elective 3
- Electives 12

**FOURTH SEMESTER**

- Liberal Arts Elective 3
- Electives 12

Total Semester Hours 60
Curriculum and Program Requirements

The student enrolled in the Associate in Science in General Studies program may plan a completely individual program leading to the Associate in Science degree. There are no specific requirements for the Associate in Sciences degree in General Studies except a total of 60 semester hours, a 2.0 minimum Q.P.R, and the following specific course and elective requirements: English C101, Math C105, First Year Seminar, 2 additional University Core courses, and 2 electives from the Humanities, Sciences, or Social Sciences. In addition, a minimum of 24 semester hours in Mathematics and Science is required.

Learning Outcomes

By completing the program in General Studies, students will: 1) be able to communicate effectively in writing so that one may advance professionally and apply to graduate programs; 2) be able to comprehend, analyze, and interpret texts in a variety of disciplines; 3) be able to present orally one's own thoughts and plans; 4) be able to recognize a problem and devise a plan of action to solve it; 5) be able to show mastery of several disciplines within an academic area of concentration; and 6) demonstrate an ethical mind-set and exercise professional responsibility in a global context.
General Studies Bachelor of Science Degree

Advisor: Edward Geist
Charles Dana Hall
Telephone: (203) 576-4956
Fax: (203) 576-4051
E-mail: edwgeist@bridgeport.edu

Curriculum and Program Requirements

The Bachelor of Science degree in General Studies is for the student who wishes great flexibility in pursuing college work as well as for the student with well defined goals. The candidate for the B.S. Program will “custom-make” his or her course of study, which may include interdisciplinary work that does not fit well into conventional degree programs. Planning and revision of the programs will be done with a faculty advisor. Many graduates holding this degree have been accepted for advanced work by other institutions. However, since graduate school admissions policies vary greatly depending upon the program and institution, students contemplating graduate study should inform themselves of such requirements.

Degree Requirements

1. A minimum of 120 hours with minimum cumulative quality point ratio of 2.00.
2. The student must have an area of concentration with a minimum of 30 semester hours (no maximum), in one of the following areas: Business Studies; Humanities; Natural Science/Mathematics; Science, Engineering, or Computer Related Fields; and Social Sciences. Students may also elect a second area of concentration. A grade of “C” or above is required in all courses used to fulfill this requirement. No more than four 100 level courses can be counted in an area of concentration.
3. At least half of the semester hours to be counted in the area of concentration must be completed at the University of Bridgeport.
4. Students may not take core courses or courses counting in an area of concentration or a minor on a pass/fail basis. The University policy on pass/fail courses limits this option to a maximum of six courses (two courses per semester) during a student’s academic career, for free electives only.
5. General Studies majors may include one or more minors in their programs. Courses used to fulfill requirements for a minor may not be counted in an area of concentration.

Learning Outcomes

By completing the program in General Studies, students will: 1) be able to communicate effectively in writing so that one may advance professionally and apply to graduate programs; 2) be able to comprehend, analyze, and interpret texts in a variety of disciplines; 3) be able to present orally one’s own thoughts and plans; 4) be able to recognize a problem and devise a plan of action to solve it; 5) be able to show mastery of several disciplines within an academic area of concentration; and 6) demonstrate an ethical mind-set and exercise professional responsibility in a global context.

Summary of Requirements

PROGRAM REQUIREMENT

Approved Area of Concentration for the B.S. within Divisions. A minimum of 30 semester hours is required in one of the following categories (see item 2 under degree requirements):

BUSINESS STUDIES
All Accounting
All Business Law
All Computer Applications and Information Systems
All Economics
All Finance
All International Business
All Management
All Marketing

HUMANITIES
All Art History
All Art of the Cinema and History of the Cinema
All History
All Literature and Linguistics*
Music Appreciation (Music 121 OR 122) and all History of Music
All Philosophy
All Religion
All Theatre History (includes Theatre Arts 103)

*Writing and composition courses in English and conversation, composition, and introductory courses in languages (101-104) MAY NOT be used to meet requirements in this category

NATURAL SCIENCES/MATHEMATICS
Biological Chemistry
Geology
Mathematics (exception: Math 200)
Physics (including Astronomy)

SCIENCE, ENGINEERING, OR COMPUTER RELATED FIELD
All Computer Engineering
All Computer Sciences
All Chemistry
All Electrical Engineering
All Management Engineering
All Mathematics (except Math 200)
All Mechanical Engineering
All Physics

SOCIAL SCIENCES
All Economics
All History
All Political Science
All Psychology
All Religion
All Sociology

GENERAL EDUCATION REQUIREMENTS

ENGL C101 Composition & Rhetoric 3
MATH 105 or Demonstrated Math Competency 3
FYS 101 First Year Seminar 3
FA Fine Arts Core 3
HUM Humanities Core 6
SCI Natural Sciences Core 6
SOSC Social Sciences Core 6
CAPS C390 Capstone Seminar 3
Liberal Arts Requirements 9

42

Total Semester Hours 120
**Graphic Design Bachelor of Fine Arts Degree**

**Chair:** Emily Larned  
Arnold Bernhard Center, Room 704  
Telephone: (203) 576-4316  
Fax: (203) 576-4042  
Email: elarned@bridgeport.edu

**Curriculum and Program Requirements**

The four year Graphic Design curriculum consists of an integrated, interdisciplinary sequence that is designed (i) to stimulate creativity by encouraging imagination and conceptualization, (ii) to strengthen communication by instilling ways of thinking, analyzing and responding to problems and (iii) to provide the essential technical and technological skills as well as the general knowledge to enable students to work effectively in any branch of Design.

Design majors begin their studies with foundation courses in two- and three-dimensional design, drawing, digital photography, and computer applications, as well as background courses in arts and design history. Beginning in the foundation year, students learn to analyze each other’s ideas, and are trained to present their own to maximum effect.

Students are introduced to the theory and practice of mass communication and advertising, and are encouraged to undertake further study in the cultural and social background of modern times. The program’s emphasis is placed on the four-course Design Studio sequence, which acquaints students with ever more sophisticated technologies while applying the design processes to real-world community projects, creating a meaningful portfolio. Internships, cooperative work arrangements, and special projects are available to qualified students.

**Learning Outcomes**

1. Demonstrate ability to identify, analyze, and solve design problems. Assessment: Portfolio projects and project research.

2. Demonstrate mastery of design tools, techniques, and concepts in design. Assessment: Projects and portfolios that evidence craftsmanship and adherence to project parameters.

3. Demonstrate an understanding of the aesthetics of form development, and of the history and current state of design. Assessment: Projects, papers, and presentations for art and design history courses; in studio courses, projects that appropriately reference historical precedents.

4. Demonstrate proficiency in selection and use of relevant technologies in design. Abilities to use available technical and industrial processes to produce a design product, and to design and implement such a process. Assessment: Project and portfolio materials planned to be feasibly reproducible by industrial means rather than by one-off or by hand.

5. Demonstrate an understanding of the cultural and societal connections linking design trends and processes as well as a knowledge of business practices and of the market place. Assessment: Projects and portfolio solutions that are culturally- and audience-appropriate for the problem as posed by the business and market briefs for the project.

**Summary of Requirements**

**ART & DESIGN FOUNDATION COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ADSN 103</td>
<td>2-D Design Principles</td>
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</tr>
<tr>
<td>ADSN 105</td>
<td>Drawing Fundamentals I</td>
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<td>ADSN 106</td>
<td>Drawing Fundamentals II</td>
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<tr>
<td>ADSN 108</td>
<td>3-D Design Principles</td>
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</tr>
<tr>
<td>ADSN 117</td>
<td>Survey of Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 118</td>
<td>Survey Art History II</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 119</td>
<td>Intro to Computer Applications I</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 120</td>
<td>Intro to Computer Applications II</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 225</td>
<td>Web Applications</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 231</td>
<td>Photography I</td>
<td>3</td>
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</tbody>
</table>

**Total Semester Hours Required** 30

**SUMMARY REQUIREMENTS**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
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<tr>
<td>GDSN 203</td>
<td>Typography</td>
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<td>GDSN 304</td>
<td>Business Practices</td>
<td>3</td>
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<tr>
<td>GDSN 212</td>
<td>Intro to Visual Semiotics</td>
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<tr>
<td>GDSN 255</td>
<td>Studio I</td>
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<td>GDSN 256</td>
<td>Studio II</td>
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<td>GDSN 305</td>
<td>Studio III</td>
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<tr>
<td>GDSN 306</td>
<td>Studio IV</td>
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**Total Semester Hours Required** 30

**General Education Requirements**

**GENERAL EDUCATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition &amp; Rhetoric</td>
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<td>MATH C105</td>
<td>Intermediate Algebra</td>
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<td>HUM</td>
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<td>SOSC</td>
<td>Social Sciences Core</td>
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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
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<tr>
<td>FYS 101</td>
<td>First Year Seminar</td>
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<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
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**Total Semester Hours Required** 30

**General Education Electives**

**GENERAL EDUCATION ELECTIVES**

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<tr>
<td>MCOM 111</td>
<td>Intro Mass Communication</td>
<td>3</td>
</tr>
<tr>
<td>MCOM 220</td>
<td>Intro to Advertising</td>
<td>3</td>
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<tr>
<td>MCOM 339</td>
<td>PR and Advertising Campaigns</td>
<td>3</td>
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<tr>
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<td>Liberal Arts Electives</td>
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**Total Semester Hours Required** 12

**Concentration in New Media**

(contact an advisor for more information)

**Concentration in New Media**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>MCOM 111</td>
<td>Intro to Mass Communication</td>
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<tr>
<td>MCOM 242</td>
<td>Intro to New Media</td>
<td>3</td>
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<tr>
<td>MCOM 218</td>
<td>Media Aesthetics</td>
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<tr>
<td>MCOM 262</td>
<td>Writing for Interactive Media</td>
<td>3</td>
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<tr>
<td>MCOM 272</td>
<td>Creating Digital Video</td>
<td>3</td>
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<tr>
<td>ENGL C332</td>
<td>New Styles/Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>MCOM 342</td>
<td>Digital Project Management</td>
<td>3</td>
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<tr>
<td>MCOM 344</td>
<td>Creating Advertising for Media</td>
<td>3</td>
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<tr>
<td>MCOM 352</td>
<td>Advanced Web Publishing</td>
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<tr>
<td>MCOM 372</td>
<td>Advanced Digital Video Creation</td>
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</table>

**Total Semester Hours Required** 30

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**Total Semester Hours Required** 126-132

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**Curriculum and Program Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>ART &amp; DESIGN FOUNDATION COURSES</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>PROGRAM REQUIREMENTS</strong></td>
<td>30</td>
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<td><strong>SUMMARY REQUIREMENTS</strong></td>
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<td><strong>GENERAL EDUCATION REQUIREMENTS</strong></td>
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<td><strong>GENERAL EDUCATION ELECTIVES</strong></td>
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<tr>
<td><strong>CONCENTRATION IN NEW MEDIA</strong></td>
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**Total Semester Hours Required** 33

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**Design Electives**

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<td>ADSN 209/210</td>
<td>Painting I/II</td>
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<tr>
<td>ADSN 230</td>
<td>Video I</td>
<td>3</td>
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<tr>
<td>ADSN 357A</td>
<td>Maya</td>
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<tr>
<td>GDSN 203B</td>
<td>Type Design</td>
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<tr>
<td>GDSN 204</td>
<td>Calligraphy &amp; Letterforms</td>
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<tr>
<td>GDSN 425</td>
<td>Design Service</td>
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<td>GDSN 398/399</td>
<td>Internship/Ind Study</td>
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<tr>
<td>ILLUS 305/306</td>
<td>Illustration Studio I/II</td>
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**Total Semester Hours Required** 21-27

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**Art Design Electives**

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<tr>
<td>GDSN 355</td>
<td>Studio V: Thesis/Portfolio I</td>
<td>3</td>
</tr>
<tr>
<td>GDSN 356</td>
<td>Studio VI: Thesis/Portfolio II</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 377</td>
<td>History of Modern Design</td>
<td>3</td>
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<tr>
<td>ADSN 379</td>
<td>History of Graphic Design</td>
<td>3</td>
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</table>
# Graphic Design Bachelor of Fine Arts Degree

**Suggested Program**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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<tbody>
<tr>
<td><strong>FIRST SEMESTER</strong></td>
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<tr>
<td>FYS 101 First Year Seminar</td>
<td>ENGL C101 Composition &amp; Rhetoric</td>
</tr>
<tr>
<td>ADSN 117 Survey of Art History I</td>
<td>MATH C105 Intermediate Algebra</td>
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<tr>
<td>ADSN 103 2-D Design Principles</td>
<td>ADSN 118 Survey of Art History II</td>
</tr>
<tr>
<td>ADSN 105 Drawing I</td>
<td>ADSN 120 Intro to Computer Applications II</td>
</tr>
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<td>ADSN 119 Intro to Computer Applications I</td>
<td>ADSN 106 Drawing II</td>
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<tr>
<td><strong>THIRD SEMESTER</strong></td>
<td>ADSN 108 3-D Design Principles</td>
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<td>SOSC Social Sciences Core</td>
<td><strong>FIFTH SEMESTER</strong></td>
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<tr>
<td>HUM Humanities Core</td>
<td>SCI Natural Sciences Core</td>
</tr>
<tr>
<td>GDSN 204 Calligraphy &amp; Letterforms</td>
<td>ADSN 377 History of Modern Design</td>
</tr>
<tr>
<td>ILLUS Illustration I</td>
<td>ADSN 225 Intro to Web Applications</td>
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<tr>
<td>GDSN 255 Studio I</td>
<td>ADSN 230 Video I</td>
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<tr>
<td>MCOM 111 Introduction to Mass Communications</td>
<td>GDSN 305 Studio III</td>
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<tr>
<td><strong>FOURTH SEMESTER</strong></td>
<td><strong>SIXTH SEMESTER</strong></td>
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<tr>
<td>SOSC Social Sciences Core</td>
<td>SCI Natural Sciences Core</td>
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<tr>
<td>ADSN 379 History of Graphic Design</td>
<td>MCOM 220 Introduction to Advertising</td>
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<tr>
<td>ADSN 231 Photography</td>
<td>HUM Humanities Core</td>
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<tr>
<td>GDSN 256 Studio II</td>
<td>GDSN 306 Studio IV</td>
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<td>ADSN 203 Typography</td>
<td>GDSN 212 Intro to Visual Semiotics</td>
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<tr>
<td><strong>FIFTH SEMESTER</strong></td>
<td>Electives</td>
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<tr>
<td>SCI Natural Sciences Core</td>
<td><strong>SEVENTH SEMESTER</strong></td>
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<tr>
<td>ADSN 377 History of Modern Design</td>
<td>CAPS C390 Capstone Seminar (Core)</td>
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<tr>
<td>ADSN 225 Intro to Web Applications</td>
<td>GDSN 355 Studio V: Thesis/Portfolio I</td>
</tr>
<tr>
<td>ADSN 230 Video I</td>
<td>MCOM 339 PR and Advertising Campaigns</td>
</tr>
<tr>
<td><strong>EIGHTH SEMESTER</strong></td>
<td>ADSN 399 Independent Study</td>
</tr>
<tr>
<td>SCI Natural Sciences Core</td>
<td>Electives</td>
</tr>
<tr>
<td>MCOM 220 Introduction to Advertising</td>
<td><strong>EIGHTH SEMESTER</strong></td>
</tr>
<tr>
<td>HUM Humanities Core</td>
<td>ADSN 304 Business Practices</td>
</tr>
<tr>
<td>GDSN 306 Studio IV</td>
<td>GDSN 356 Studio VI: Thesis/Portfolio II</td>
</tr>
<tr>
<td>GDSN 212 Intro to Visual Semiotics</td>
<td>MCOM 398 Internship/Practicum</td>
</tr>
<tr>
<td>Electives</td>
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</tr>
</tbody>
</table>

Total Semester Hours: 126
Health Science Bachelor of Science Degree

Chair: Wayne Aguiar
Charles Dana Hall, Room 151
Telephone: (203) 576-4268
Fax: (203) 576-4262
Email: waguiar@bridgeport.edu

Curriculum and Program Requirements

The B.S. in Health Sciences program prepares students for application to professional programs in the health sciences. Such programs range from medical school and physician assistant programs, to programs in chiropractic and naturopathic medicine, as well as nutrition, acupuncture, and pharmacy. Many of these career options can be pursued in the University’s professional programs.

The program offers tracks (concentrations) in community health education, exercise and fitness, and nutrition for students who desire to enter these fields at the entry level.

The program affords this range of options primarily through a liberal arts orientation toward these professions. Thus, all students take a foundation of common courses in biology, chemistry, physics, and mathematics, as well as special general education courses such as biological psychology and healthcare ethics.

A primary conviction of the program is that one of the most pressing challenges of the twenty-first century is to provide adequate healthcare to the growing and aging population. Whether students prepare for professional school application and admission, or entry level opportunities, all are encouraged to develop a philosophy of care consistent with the University’s mission.

Admissions Requirements

A student is admitted to the majors in Arts and Sciences after an evaluation of the high school transcript, counselor recommendations, and SAT/ACT scores and has demonstrated potential in analytical reasoning, comprehension, verbal expression and intellectual growth…. Students who perform well in the Biology and Mathematics programs [thus also Health Sciences] are generally found to have met the following criteria:

- SAT scores of 530 verbal and 560 math, or composite ACT score of 22.
- Grade point average of B (2.5) or better.
- Rank in the top half of the high school graduating class.
- Four years of mathematics; two lab sciences and an additional science unit in high school.

At the discretion of the Admissions Committee, students who meet two of these standards can be admitted into the major.

Learning Outcomes

As a result of completing the B.S. in Health Sciences, graduates will be able to apply principles of health and wellness as a lifelong process of learning grounded in the study of basic sciences and the behavioral arts. The students will:

- Understand fundamental biological, chemical, and physical properties underlying life systems.
- Be able to gather and analyze research data and make inferences based on the data.
- Be aware of professional, ethical, and privacy issues that are pertinent to careers in the health sciences.

Exercise and Fitness students will understand the relationship between exercise and wellness maintenance and be skilled at developing appropriate fitness programs for diverse populations.

Nutrition students will understand principles of human nutrition and the relationship to health and wellness using evidence based strategies.

Community health education students will understand principles to help people assume more responsibility for their health and well being through educational development, implementation and evaluation of community health programs.

Pre-professional students will be broadly prepared to enter professional schools and to successfully meet school admissions criteria.

GENERAL EDUCATION REQUIREMENTS

The following General Education courses are required of all Health Science concentrations:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
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<tr>
<td>ENGL 102</td>
<td>Intro to Literature</td>
<td>3</td>
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<tr>
<td>FYS 101</td>
<td>First Year Seminar</td>
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</tr>
<tr>
<td>PHIL 110</td>
<td>Healthcare Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 103</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105</td>
<td>Intermediate Algebra</td>
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</tr>
<tr>
<td>BIOL 113</td>
<td>Anatomy and Physiology I</td>
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<tr>
<td>HUM 101</td>
<td>Humanities Core</td>
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</tr>
<tr>
<td>SOSC 101</td>
<td>Social Science Core</td>
<td>3</td>
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<tr>
<td>ARTH 101</td>
<td>Fine Arts Core</td>
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</tr>
<tr>
<td>MATH 203/203B</td>
<td>Statistics/Biostatistics</td>
<td>4</td>
</tr>
<tr>
<td>CAPS 300</td>
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<tr>
<td>TOTAL</td>
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</table>

Concentration Requirements & Suggested Programs

Each concentration requires specific additional courses.

PRE-PROFESSIONAL AND TRACK-SPECIFIC COURSE REQUIREMENTS

In addition to the requirements above, the pre-professional advisement sequence and specific tracks require additional General Education and Track-Specific courses:

PRE-PROFESSIONAL CORE

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tr>
<td>ENGL 102</td>
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<tr>
<td>BIOL 100</td>
<td>Biology Study Skills</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>Cell-Molecular Biology</td>
<td>4</td>
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<tr>
<td>BIOL 106</td>
<td>Microbiology</td>
<td>4</td>
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<tr>
<td>BIOL 114</td>
<td>Anatomy and Physiology II</td>
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<td>MATH 109</td>
<td>Pre-Calculus</td>
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<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
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<tr>
<td>BIOL 207</td>
<td>Genetics</td>
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<td>BIOL 208</td>
<td>Organic Chemistry II</td>
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<tr>
<td>BIOL 209</td>
<td>Biochemistry</td>
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<td>PHYS 201</td>
<td>General Physics</td>
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</table>
Health Sciences Bachelor of Science Degree

ALL PHASES OF PRE-PROFESSIONAL STUDY ARE CUSTOMIZED WITH COURSES THAT MEET THE STUDENT’S NEEDS FOR PROFESSIONAL PROGRAMS IN THE HEALTH SCIENCES

COMMUNITY HEALTH EDUCATION TRACK
BIOL 106 Microbiology 4
BIOL 114 Anatomy and Physiology II 4
CHEM 113 Introduction to Chemistry 4
CHEM 114 Introduction to Biochemistry 4
PSYC 321 Research Methods 3
ACCT 101 Principles of Accounting 3
HSCI 240 Theory of Community Health Education 3
HSCI 255 Community Health Planning & Evaluation 3
HSCI 280 Community Health Promotion 3
HSCI 240 Theory of Comm Hlth Educ 3
Total Hours: 17 (63)

JUNIOR YEAR

FALL SEMESTER
CHEM 113 Intro to Chemistry 4
MATH 203/B Statistics/Biostatistics 4
HSCI 330 Health Care Admin 3
Elective 3
Total Hours: 14 (77)

SPRING SEMESTER
CHEM 114 Intro to Biochemistry 4
HSCI 326 Health Policy & Mgmt 3
HSCI 365 Epidemiology for HS Prof 3
PSYC 321 Research Methods 3
Elective 3
Total Hours: 16 (95)

EXERCISE AND FITNESS CONCENTRATION
BIOL 100 Biology Study Skills 3
BIOL 102 Cellular Molecular Biology 4
CHEM 113 General Chemistry I 4
CHEM 114 General Chemistry II 4
PHYS 201 General Physics 4
PSYC 355 Sports Psychology 3
HSCI 361 Fitness Assessment 3
HSCI 381 Internship 3
HSCI Electives 9
SCI Electives 6
Exercise and Fitness Concentration 67
Total 120

SUGGESTED PROGRAM – EXERCISE AND FITNESS CONCENTRATION

FRESHMAN YEAR

FALL SEMESTER
ENG 101 English Composition 3
FYS 101 First Year Seminar 3
PSYC 103 Intro to Psychology (SS) 3
MATH 105 Intermediate Algebra 3
HSCI 201 Medical Terminology 1
Total Semester Hours Required 14

SPRING SEMESTER
PHIL 110 Healthcare Ethics 3
NUTR 205 Fundamentals of Nutrition 3
HSCI 260 Intro to Exercise Science 3
BIOL 102 Cellular Molecular Biology 4
PSYC 103 Intro to Psychology 3
Total Semester Hours Required 16

SOPHOMORE YEAR

FALL SEMESTER
CHEM 113 General Chemistry I 4
HSCI 455 Health Sciences Sr Project 3
HSCI Elective 3
Elective 3
Total Hours: 15 (108)

SPRING SEMESTER
HSCI 385 Community Health Intern 3
CAPS C390 Capstone 3
HSCI Elective 3
HSCI Elective 3
Total Hours: 12 (120)

EXERCISE AND FITNESS CONCENTRATION

FALL SEMESTER
BIO 114 Anat & Physiology II 4
BIOL 106 Microbiology 4
HSCI 255 Comm Hlth Plan & Eval 3
HSCI 280 Community Hlth Promotion 3
HSCI 401 Health Sciences Information Literature 3
Total Hours: 16 (46)
# Health Sciences Bachelor of Science Degree

## SPRING SEMESTER

<table>
<thead>
<tr>
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<th>Hours</th>
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<td>Strength and Conditioning</td>
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<tr>
<td>HSCI 351</td>
<td>Fitness &amp; Wellness Program Development</td>
<td>3</td>
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<tr>
<td>HSCI 301</td>
<td>Biomechanics</td>
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<tr>
<td>FA Core</td>
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</table>

**Total Semester Hours Required:** 13

## SENIOR YEAR

### FRESHMAN YEAR

**FALL SEMESTER**

- ENGL 101: English Composition 3
- MATH 105: Intermediate Algebra 3
- HUM Core: Humanities Core Elective 3

**SPRING SEMESTER**

- PHIL 100: Healthcare Ethics 3
- NUTR 205: Fundamentals of Nutrition 3
- ACCT 101: Principles of Accounting 3
- HUM Core: Humanities Core Elective 3

**Total Semester Hours Required:** 15

### SOPHOMORE YEAR

**FALL SEMESTER**

- BIOL 113: Anatomy & Physiology I 4
- CHEM 113: Intro to Chemistry I 4
- MATH 203: Statistics 3
- HUM Core: Humanities Core Elective 3

**SPRING SEMESTER**

- CHEM 114: Intro to Biochemistry 4
- BIOL 114: Anat & Physiology II 4
- HUM Core: Humanities Core Elective 3
- SCI Electives 3

**Total Semester Hours Required:** 15

### JUNIOR YEAR

**FALL SEMESTER**

- HSCI 370: Clinical Herbology & Botany 3
- HUM Core: Humanities Core Elective 3
- HSCI 380: Nutrition Internship 3
- HSCI 420: Food Service Management 3
- HSCI 460: Vitamins and Minerals 3
- HSCI Electives 6

**SPRING SEMESTER**

- CHEM 114: Intro to Biochemistry 4
- BIOL 114: Anat & Physiology II 4
- HUM Core: Humanities Core Elective 3
- SCI Electives 3

**Total Semester Hours Required:** 15

### SENIOR YEAR

**FALL SEMESTER**

- HSCI 370: Clinical Herbology & Botany 3
- HUM Core: Humanities Core Elective 3
- HSCI 380: Nutrition Internship 3
- HSCI 420: Food Service Management 3
- HSCI 460: Vitamins and Minerals 3
- HSCI Electives 6

**SPRING SEMESTER**

- CHEM 114: Intro to Biochemistry 4
- BIOL 114: Anat & Physiology II 4
- HUM Core: Humanities Core Elective 3
- SCI Electives 3

**Total Semester Hours Required:** 12

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**Suggested Program – Nutrition Concentration**

**FRESHMAN YEAR**

**FALL SEMESTER**

- ENGL 101: English Composition 3
- MATH 105: Intermediate Algebra 3
- HUM Core: Humanities Core Elective 3

**SPRING SEMESTER**

- PHIL 100: Healthcare Ethics 3
- NUTR 205: Fundamentals of Nutrition 3
- ACCT 101: Principles of Accounting 3
- HUM Core: Humanities Core Elective 3

**Total Semester Hours Required:** 15

**SOPHOMORE YEAR**

**FALL SEMESTER**

- BIOL 113: Anatomy & Physiology I 4
- CHEM 113: Intro to Chemistry I 4
- MATH 203: Statistics 3
- HUM Core: Humanities Core Elective 3

**SPRING SEMESTER**

- CHEM 114: Intro to Biochemistry 4
- BIOL 114: Anat & Physiology II 4
- HUM Core: Humanities Core Elective 3
- SCI Electives 3

**Total Semester Hours Required:** 15

**JUNIOR YEAR**

**FALL SEMESTER**

- HSCI 370: Clinical Herbology & Botany 3
- HUM Core: Humanities Core Elective 3
- HSCI 380: Nutrition Internship 3
- HSCI 420: Food Service Management 3
- HSCI 460: Vitamins and Minerals 3
- HSCI Electives 6

**SPRING SEMESTER**

- CHEM 114: Intro to Biochemistry 4
- BIOL 114: Anat & Physiology II 4
- HUM Core: Humanities Core Elective 3
- SCI Electives 3

**Total Semester Hours Required:** 15

**SENIOR YEAR**

**FALL SEMESTER**

- HSCI 370: Clinical Herbology & Botany 3
- HUM Core: Humanities Core Elective 3
- HSCI 380: Nutrition Internship 3
- HSCI 420: Food Service Management 3
- HSCI 460: Vitamins and Minerals 3
- HSCI Electives 6

**SPRING SEMESTER**

- CHEM 114: Intro to Biochemistry 4
- BIOL 114: Anat & Physiology II 4
- HUM Core: Humanities Core Elective 3
- SCI Electives 3

**Total Semester Hours Required:** 12

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**Nutrition Concentration**

- Nutrition Concentration 68
- Total 120
Human Services Bachelor of Science Degree

Coordinator: Donna Phillips
Charles A. Dana Hall
Telephone: (203) 576-4171
Fax: (203) 576-4171
E-mail: dphil@bridgeport.edu

Curriculum and Program Requirements

The Human Services Program is designed to provide the academic and practical experience necessary to enter the field of human services upon completion of the degree. The combination of academic theoretical coursework and its application through supervised field work experience provides students with the breadth of preparation necessary for employment in a wide range of human service agencies and community organizations. Students have the opportunity to enhance their programs with minors in such fields as Education, Business and Social Sciences. Stimulating courses are taught by experienced faculty who are current practitioners as well as active researchers.

Learning Outcomes

By completing the B.S. in Human Services, students will: 1) be knowledgeable of the history and systems of the Human Services field; 2) be skillful at program assessment, planning, and development; 3) be able to find, use, manage, and protect information effectively; 4) be effective at oral and written communication; 5) be adept at program administration and leadership; 6) be committed to ethical practices; and 7) be respectful of client values and attitudes.

Summary of Requirements

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HUSV 110</td>
<td>Alcohol and Other Drugs In Society</td>
<td>3</td>
</tr>
<tr>
<td>HUSV 201</td>
<td>Introduction to Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUSV 203</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUSV 205</td>
<td>Couns MTHds for Spec Populations</td>
<td>3</td>
</tr>
<tr>
<td>HUSV 305</td>
<td>Group Interaction</td>
<td>3</td>
</tr>
<tr>
<td>or HUSV 304</td>
<td>Peer Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUSV 301</td>
<td>Crisis Management</td>
<td>3</td>
</tr>
<tr>
<td>HUSV 350</td>
<td>Human Services Seminar</td>
<td>3</td>
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</table>

HUSV 333    Social Welfare Policy                              3
HUSV 101    Introduction to Gerontology                        3
HUSV 302    Multicultural Perspectives in Human Services       3
PSYC 201    Human Growth & Development                          3
PHIL 203    Ethics                                               3
or HUSV 320 Applied Ethics for HUSV Professionals               3
HUSV 277    Practicum                                           3
HUSV 312    Internship                                         6
NUTR 205    Fundamentals of Nutrition                           3
MCOM 110    Public Communication                                3

PLUS ANY EIGHTEEN SEMESTER HOURS OF HUMAN SERVICES, PSYCHOLOGY OR RELATED FIELD _______________________________ 18

FREE ELECTIVES _______________________________ 11

GENERAL EDUCATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<td>ENGL C101</td>
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<td>Humanities Core</td>
<td>6</td>
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<td>FA</td>
<td>Fine Arts Core</td>
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<td>MATH C105</td>
<td>Intermediate Algebra</td>
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<td>SCI</td>
<td>Natural Sciences Core</td>
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<td>SOSC</td>
<td>Social Sciences Core</td>
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<tr>
<td>CAPS 390</td>
<td>Capstone Seminar</td>
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<td>FYS 101</td>
<td>First Year Seminar</td>
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<td></td>
<td>Liberal Arts Electives</td>
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Total Semester Hours 120

Suggested Program

FIRST SEMESTER

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<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition and Rhetoric</td>
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<tr>
<td>HUSV 110</td>
<td>Alcohol and Other Drugs in Society</td>
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<td>HUSV 201</td>
<td>Introduction to Counseling</td>
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<tr>
<td>FA</td>
<td>Fine Arts Core</td>
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<td>MATH C105</td>
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<td>FYS 101</td>
<td>First Year Seminar</td>
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SECOND SEMESTER

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<tr>
<td>HUSV 203</td>
<td>Introduction to Human Services</td>
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<tr>
<td>MCOM 110</td>
<td>Communications</td>
<td>3</td>
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<tr>
<td>HUSV 101</td>
<td>Introduction to Gerontology</td>
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<tr>
<td>PHIL 203</td>
<td>Ethics</td>
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<tr>
<td>HUSV 205</td>
<td>Counseling Special Populations</td>
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THIRD SEMESTER

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<td>PSYC 201</td>
<td>Human Growth and Development</td>
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<td>HUSV 277</td>
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FOURTH SEMESTER

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<td>Multicultural Perspectives</td>
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<td>HUSV 110</td>
<td>Alcohol and Drugs in Society</td>
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<td>HUSV 333</td>
<td>Social Welfare Policy</td>
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FIFTH SEMESTER

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<td>HUSV 277</td>
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<td>NUTR 205</td>
<td>Fundamentals of Nutrition</td>
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<td>HUSV</td>
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SIXTH SEMESTER

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<tr>
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<tr>
<td>HUSV 305</td>
<td>Group Interaction</td>
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<td>HUSV 312</td>
<td>Internship</td>
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<td>HUSV 301</td>
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<td>HUSV</td>
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SEVENTH SEMESTER

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<td>HUSV 350</td>
<td>Human Service Seminar</td>
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<td>HUSV 312</td>
<td>Internship</td>
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EIGHTH SEMESTER

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<td>Electives</td>
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<tr>
<td></td>
<td>Free Electives</td>
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Total Semester Hours 120
**Industrial Design Bachelor of Science Degree**

**Chair:** Richard Wilfred Yelle  
Arnold Bernhard Center, Room 810  
Telephone: (203) 576-4222  
Fax: (203) 576-4042  
E-mail: ryelle@bridgeport.edu

**Curriculum and Program Requirements**

In our technological world, the creative industrial designer leads the way in the design of products that are user friendly, safe, energy efficient and enjoyable to use. The designer’s concern is with the sensory aspects of products, bringing together all facets of product development including aesthetics, ergonomics, materials, manufacturability, and environmental considerations. Professional designers often work in interdisciplinary teams on consumer products; business products; and scientific and medical instruments.

The Industrial Design program begins with the basics of two- and three-dimensional design, art and design history, computer aided design, drawing, model making, as well as courses in the sciences and general education.

Students will research, design and develop assigned product concepts in the studio and computer laboratories. Build product models in a well equipped Model Lab and present and document their creative and unique solutions. They will study support subjects like ergonomics, materials and manufacturing, sustainability and marketing. All students will develop a strong portfolio that will prepare them to enter the design profession. The Industrial Design program offers the student a broad based design education with opportunities to specialize within many traditional areas of product, package, exhibit, and transportation design. Students will have opportunities to work on competitions and collaborative projects often with industrial sponsorship, and will be encouraged to work in summer internships.

**Learning Outcomes**

1. Demonstrate ability to identify, analyze, and solve design problems. Assessment: Portfolio projects and project research.

2. Demonstrate mastery of design tools, techniques, and concepts in design. Assessment: Projects and portfolios that evidence craftsmanship and adherence to project parameters.

3. Demonstrate an understanding of the aesthetics of form development, and of the history and current state of design. Assessment: Projects, papers, and presentations for art and design history courses; in studio courses, projects that appropriately reference historical precedents.

4. Demonstrate proficiency in selection and use of relevant technologies in design. Abilities to use available technical and industrial processes to produce a design product, and to design and implement such a process. Assessment: Project and portfolio materials planned to be feasibly reproducible by industrial means rather than by one-off or by hand.

5. Demonstrate an understanding of the cultural and societal connections linking design trends and processes as well as a knowledge of business practices and of the market place. Assessment: Projects and portfolio solutions that are culturally- and audience-appropriate for the problem as posed by the business and market briefs for the project.

**Summary of Requirements**

**PROGRAM REQUIREMENTS**

**DESIGN FOUNDATION COURSES**

- **ADSN 103** 2D Design 3
- **ADSN 105** Drawing I 3
- **ADSN 108** 3-D Design 3
- **ADSN 110** Drawing/Drafting 3
- **ADSN 119A** Intro to Computer Applications I 3
- **ADSN 119B** Intro to Computer Applications II 3
- **ADSN 205** Drawing III 3
- **ADSN 206** Drawing IV 3
- **ADSN 231** Digital Photography 3
- **ADSN 233** Motion Graphics 3
- **ADSN 377** History of Modern Design 3
- **ADSN 425** History of Industrial Design 3

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**MAJOR REQUIREMENTS**

- **IDDSN 215** Materials and Manufacturing I 3
- **IDDSN 216** Materials and Manufacturing II 3
- **IDDSN 218S & W** SolidWorks CAD I & II 4
- **IDDSN 218C** SolidWorks CAD III 2
- **IDDSN 255** Industrial Design Studio I 3
- **IDDSN 256** Industrial Design Studio II 3
- **IDDSN 305** Industrial Design Studio III 3
- **IDDSN 306** Industrial Design Studio IV 3
- **IDDSN 355** Industrial Design Studio V 3
- **IDDSN 356** Industrial Design Studio VI 3
- **IDDSN 357** NX/ Maya CAD 6
- **IDDSN 398** Internship 3
- **IDDSN 399** Special Projects 3

**GENERAL EDUCATION REQUIREMENTS**

- **FYS 101** First Year Seminar 3
- **ENGL C101** Composition & Rhetoric 3
- **MATH C105** Intermediate Algebra 3
- **HUM** Humanities Core 6
- **SCI** Natural Science Core 6
- **SOSC** Social Sciences Core 6
- **ADSN 117 Survey of Art History I** 3
- **ADSN 118 Survey of Art History II** 3
- **CAPS C390** Capstone Seminar 3
- **Liberal Arts Electives** 4

**Total Semester Hours** 127

**Suggested Program**

**FIRST SEMESTER**

- **FYS 101** First Year Seminar 3
- **ADSN 103** 2D Design 3
- **ADSN 105** Drawing I 3
- **ADSN 117 History Survey of Art I** 3
- **ADSN 119A** Intro to Computer Applications I 3

**SECOND SEMESTER**

- **ADSN 108** 3-D Design 3
- **ADSN 110** Drawing / Drafting 3
- **ADSN 118 History Survey of Art II** 3
- **ADSN 119B** Intro to Computer Applications II 3
- **MATH C105** Intermediate Algebra 3
- **ENGL C101** Composition & Rhetoric 3
## Industrial Design Bachelor of Science Degree

### Third Semester
- **SOSC**: Social Science Core 3
- **IDDSN 205**: Drawing III 3
- **IDDSN 215**: Material & Manufacturing I 3
- **IDDSN 218S**: SolidWorks CAD 2
- **IDDSN 255**: Industrial Design Studio I 3
- **SCI**: Natural Science Core 3

### Fourth Semester
- **SCI**: Natural Science Core 3
- **SOSC**: Social Science Core 3
- **IDDSN 206**: Drawing IV 3
- **IDDSN 216**: Materials & Manufacturing II 3
- **IDDSN 218W**: SolidWorks CAD II 2
- **IDDSN 256**: Industrial Design Studio II 3

### Fifth Semester
- **ADSN 377**: History of Modern Design 3
- **HUM**: Humanities Core 3
- **IDDSN 218C**: SolidWorks CAD III 2
- **IDDSN 305**: Industrial Design Studio III 3
- **ITDSN 312**: Furniture Design 3
- **Design Elective**: 3

### Sixth Semester
- **HUM**: Humanities Core 3
- **IDDSN 231**: Digital Photography 3
- **IDDSN 306**: Industrial Design Studio IV 3
- **IDDSN 311**: Exhibit Design 3
- **Liberal Arts Electives**: 4

### Seventh Semester
- **ADSN 357A**: NX Maya CAD 3
- **ADSN 233**: Motion Graphics 3
- **IDDSN 355**: Industrial Design Studio V 3
- **IDDSN 399**: Special Projects 3
- **Design History Elective**: 3

### Eighth Semester
- **CAPS C390**: Capstone Seminar 3
- **IDDSN 356**: Industrial Design Studio VI 3
- **IDDSN 357B**: NX Maya CAD 3
- **IDDSN 398**: Internship 3

### Total Semester Hours 127
Interior Design Bachelor of Science Degree

Chair:
Arnold Bernhard Center, Room 509
Telephone: (203) 576-4221
Fax: (203)-576-4042
E-mail:

Curriculum and Program Requirements

The Interior Design program prepares students to the functional, technical and aesthetic aspects of the interior environment.

The Professional Interior Designer is qualified to identify, research and solve problems pertaining to the function and aesthetic quality of the interior environment. The designer must have knowledge of construction materials, their applications and methods of installation. Interior designers must design the space in accordance with federal, state and local building codes to meet safety, health, and accessibility requirements. Interior designers both plan the space and furnish the interiors of private homes, public buildings and commercial establishments such as offices, retail, restaurants, hospitals, hotels and theaters. They may plan additions, renovations and be involved in historic preservations. With a client’s needs and budget in mind, they develop space-planning solutions; prepare working drawings, millwork, architectural details and specifications for interior construction, furnishing and finishes. Designers use computers to generate plans and construction documents, in addition to 3D modeling views.

At UB several interior projects assignments are done in collaboration with noted interior/architectural firms, to give students a grasp of real projects and receive additional inputs from professionals in the field. In addition, this relationship helps establish connections for internships.

ITDSN 398 (Internship) can be taken as an elective in addition to the required coursework.

As an Interior Design major, you can specialize in several areas:
- Residential Design (new and existing)
- Contract Design such as: Retail, Hospitality, Corporate Offices, Health care, Institutional
- Historic Preservation
- Exhibit Design
- Furniture and Furnishings Design

Learning Outcomes

1. Demonstrate ability to identify, analyze, and solve design problems. Assessment: Portfolio projects and project research.
2. Demonstrate mastery of design tools, techniques, and concepts in design. Assessment: Projects and portfolios that evidence craftsmanship and adherence to project parameters.
3. Demonstrate an understanding of the aesthetics of form development, and of the history and current state of design. Assessment: Projects, papers, and presentations for art and design history courses; in studio courses, projects that appropriately reference historical precedents.
4. Demonstrate proficiency in selection and use of relevant technologies in design. Abilities to use available technical and industrial processes to produce a design product, and to design and implement such a process. Assessment: Project and portfolio materials planned to be feasibly reproducible by industrial means rather than by one-off or by hand.
5. Demonstrate an understanding of the cultural and societal connections linking design trends and processes as well as a knowledge of business practices and of the market place. Assessment: Projects and portfolio solutions that are culturally- and audience-appropriate for the problem as posed by the business and market briefs for the project.

Summary of Requirements

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>DESIGN FOUNDATION COURSES</th>
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<tbody>
<tr>
<td>ADSN 103</td>
<td>2D Design 3</td>
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<tr>
<td>ADSN 105</td>
<td>Drawing I 3</td>
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<td>ADSN 108</td>
<td>3D Design 3</td>
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<td>ADSN 110</td>
<td>Drawing / Drafting 3</td>
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<td>ADSN 205</td>
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<td>ADSN 119A</td>
<td>Intro to Computer Applications I 3</td>
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<td>ADSN 119B</td>
<td>Intro to Computer Applications II 3</td>
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<td>ADSN 231</td>
<td>Digital Photography 3</td>
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</table>

MAJOR REQUIREMENTS

| ADSN 206 | Interiors Drawing IV 3 |
| ITDSN 215 | Interior Construction Systems 3 |
| ITDSN 217 | Color Studies for Interiors 3 |
| ITDSN 218 | CAD Design A, B, C 6 |
| ITDSN 253 | Studio I 3 |
| ITDSN 256 | Studio II 3 |
| ITDSN 303 | Materials, Products & Applications 3 |
| ITDSN 304 | Business Practices & Ethics 3 |
| ITDSN 305 | Studio III 3 |
| ITDSN 306 | Studio IV 3 |
| ITDSN 307 | Lighting/Acoustic Design 3 |
| ITDSN 309 | Human Factors Design 3 |
| ITDSN 311 | Display & Exhibition Design 3 |
| ITDSN 312 | Furniture Design 3 |
| ITDSN 335 | Studio V (Thesis) 3 |
| ITDSN 356 | Studio VI 3 |
| ITDSN 362 | Construction Documents (Thesis) 3 |
| ITDSN 399 | Special Projects 3 |

GENERAL EDUCATION REQUIREMENTS

| ENGL C101 | Composition & Rhetoric 3 |
| MATH C105 | Intermediate Algebra 3 |
| HUM | Humanities Core 6 |
| SOSC | Social Sciences Core 6 |
| SCI | Natural Sciences Core 6 |
| ADSN 117 | Survey of Art History I 3 |
| ADSN 118 | Survey of Art History II 3 |
| FYS 101 | First Year Seminar 3 |
| CAPS C390 | Capstone Seminar 3 |
| | Liberal Arts Electives 4 |

TOTAL SEMESTER HOURS 127

Suggested Program

FIRST SEMESTER

| FYS 101 | First Year Seminar 3 |
| ADSN 117 | Survey of Art History I 3 |
| ADSN 105 | 2D Design 3 |
| ADSN 105 | Drawing I 3 |
| ADSN 119A | Intro Computer Applications I 3 |

SECOND SEMESTER

| ENGL C101 | Composition & Rhetoric 3 |
| MATH C105 | Intermediate Algebra 3 |
| ADSN 118 | Survey of Art History II 3 |
| ADSN 108 | 3D Design 3 |
| ADSN 110 | Drawing / Drafting 3 |
| ADSN 119B | Intro Computer Applications II 3 |
# Interior Design Bachelor of Science Degree

## THIRD SEMESTER

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<tr>
<td>ADSN 377</td>
<td>History of Modern Design</td>
<td>3</td>
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<tr>
<td>ADSN 205</td>
<td>Drawing III</td>
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<td>ITDSN 218A</td>
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## FOURTH SEMESTER

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<td>ITDSN 217</td>
<td>Color Studies for Interiors</td>
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<td>ADSN 206</td>
<td>Interiors Drawing IV</td>
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## FIFTH SEMESTER

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<td>ITDSN 215</td>
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## SIXTH SEMESTER

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<td>ITDSN 303</td>
<td>Materials, Products &amp; Applications</td>
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<td>ITDSN 304</td>
<td>Business Practices</td>
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## SEVENTH SEMESTER

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<td>CAPS C390</td>
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<td>HUM</td>
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<td>ITDSN 355</td>
<td>Studio V</td>
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<td>ITDSN 307</td>
<td>Lighting &amp; Acoustic Design</td>
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<td>Furniture Design</td>
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## EIGHTH SEMESTER

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<td>Construction Documents</td>
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<td>ITDSN 356</td>
<td>Studio VI</td>
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<td>ITDSN 399</td>
<td>Special Projects</td>
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**Total Semester Hours** 127
Students must earn a grade of “C” or higher in each of the four International Business major electives.

**Summary of Requirements**

**CREDITS**

<table>
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<tr>
<th>Requirement</th>
<th>Credits</th>
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<tr>
<td>General Education Requirements</td>
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<tr>
<td>International Business Program Requirements</td>
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<td>International Business Major Electives</td>
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**GENERAL EDUCATION REQUIREMENTS**

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<td>MATH C105</td>
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<td>ECON 201</td>
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**PROGRAM REQUIREMENTS**

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**INTERNATIONAL BUSINESS ELECTIVES (Select four courses)**

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<td>IBU 360</td>
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<td>IBU 362</td>
<td>International Sales (Commercial) Transactions</td>
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<td>IBU 363</td>
<td>Settlement of International Business Disputes</td>
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<td>IBU 366</td>
<td>International Business and Customs Unions</td>
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<td>MGMT 320</td>
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<td>-OR-</td>
<td>Other approved courses in foreign languages, study abroad, history, or political science</td>
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**FREE ELECTIVES**

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| Credits |

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| Credits |
International Political Economy and Diplomacy *Bachelor of Arts*

**Chair: Chunjuan Nancy Wei**  
Carlson Hall, Room 219  
Telephone: (203) 576-4153  
Fax: (203) 576-4967  
E-mail: chunjuanwei@bridgeport.edu

**Curriculum and Program Requirements**

The major in International Political Economy and Diplomacy provides students with a comprehensive understanding of the global political economy as well as the analytical skills to evaluate change and direction. Political economy describes the nexus between politics and economics, and international political economy studies the arena where international politics and international economics meet. The subject matter of International Political Economy is the study of the international economic system and how it produces, distributes, and uses wealth. The study of the international political system focuses a set of institutions and rules by which social and economic interactions are governed. It represents an investigation of the political basis of economic action and the economic basis of political action. An important additional consideration is the role of international law in developing universal principles and norms in the conduct of international relations, and governing of relations between states and their citizens. Because diplomatic negotiations form the basis of new international law, and because diplomacy operates within the framework of extant international law, the study of diplomacy is an important component in the study of international political economy.

**Learning Outcomes**

The B.A. in International Political Economy & Diplomacy has the following learning outcomes: 1) students will demonstrate an ability to explain and compare different political and economic systems; 2) students will be able to reflect on the role of culture, history and religion in international political economy; 3) students will be able to explain the role of diplomacy and conflict resolution in international relations; 4) Students will demonstrate a basic working knowledge of a world language other than one’s mother tongue; 5) students will demonstrate the ability to use critical thinking in their evaluation of issues and problems in international political economy; and 6) students will demonstrate practical skills in helping resolve global disputes through diplomacy and conflict resolution.

*Note that for all College of Public and International Affairs majors, a portfolio is collected to track progress in programmatic outcomes.*

**Summary of Requirements**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOSC 207</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>WREL 101</td>
<td>Intro to World Religions</td>
<td>3</td>
</tr>
<tr>
<td>SOC 251</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 103</td>
<td>Intro to Political Science and Political Science Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Macro Economics</td>
<td>3</td>
</tr>
<tr>
<td>or PSED 201</td>
<td>Economics and Development</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Micro Economics</td>
<td>3</td>
</tr>
<tr>
<td>or PSED 202</td>
<td>Intro to Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>IPED 206</td>
<td>Pol. Eco. of North/South Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 312</td>
<td>Diplomacy &amp; Foreign Policy</td>
<td>3</td>
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**TWO OF THE FOLLOWING**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSCI 101</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>or IPED 345</td>
<td>Political Economy of EU</td>
<td>3</td>
</tr>
<tr>
<td>or PSCI 329</td>
<td>Political Economy of China</td>
<td>3</td>
</tr>
<tr>
<td>IPED/PSCI 321</td>
<td>Political Economy of East Asia</td>
<td>3</td>
</tr>
<tr>
<td>IPED 340</td>
<td>Political Economy of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>WREL 374</td>
<td>Religion and Politics in the Middle East</td>
<td>3</td>
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</table>

**TWO OF THE FOLLOWING**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSCI 204</td>
<td>Government and Politics Abroad</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 203</td>
<td>U.S. Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 305</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>or PSCI 207</td>
<td>World Politics</td>
<td>3</td>
</tr>
<tr>
<td>or PSCI 209</td>
<td>Intro to International Law</td>
<td>3</td>
</tr>
<tr>
<td>IPED 206</td>
<td>Pol. Eco. of North/South Relations</td>
<td>3</td>
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**PLUS ANY FOUR OF THE FOLLOWING COURSES:**

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOSC 207</td>
<td>World Regional Geography</td>
<td>3</td>
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<tr>
<td>PSCI 323</td>
<td>Classics in Political Theory</td>
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<tr>
<td>or PSCI 324</td>
<td>Recent Political Theory</td>
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**ASIA-PACIFIC STUDIES**

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IPED/PSCI 321</td>
<td>Political Economy of East Asia</td>
<td>3</td>
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</table>

**PLUS ANY FOUR OF THE FOLLOWING COURSES:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IPED 391</td>
<td>Sustainable Development</td>
<td>3</td>
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**MIDDLE EAST STUDIES**

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<tbody>
<tr>
<td>WREL 374</td>
<td>Religion and Politics in the Middle East</td>
<td>3</td>
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</table>

**PLUS ANY FOUR OF THE FOLLOWING COURSES:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSCI 203</td>
<td>U.S. Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>IPED 392</td>
<td>Geopolitics of Oil</td>
<td>3</td>
</tr>
<tr>
<td>or PSCI 209</td>
<td>World Politics</td>
<td>3</td>
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<tr>
<td>or IPED 390</td>
<td>Multinational Corporations in IPE</td>
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</table>

**FOREIGN LANGUAGE REQUIREMENT**

All IPED majors must demonstrate a working knowledge of at least one world language besides English or complete through the 104 level of one of the following languages currently offered at the University: Chinese, Korean, Japanese, French, or Spanish.

**THESIS AND INTERNSHIP GUIDELINES**

A senior thesis is voluntary but strongly encouraged. Depending on the scope of the project, a thesis may account for 3 to 6 credit hours. While not required, students are encouraged to write on a subject related to their field of con-
centrations, should they have elected one. In addition, one semester of internship is also strongly encouraged. Internship may account for 3 to 6 credit hours.

**GENERAL EDUCATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition &amp; Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>MATH C105</td>
<td>Intermediate Algebra or above</td>
<td>3</td>
</tr>
<tr>
<td>FYS 101</td>
<td>First Year Seminar</td>
<td>3</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Core</td>
<td>6</td>
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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
<td>6</td>
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<td>SOSC</td>
<td>Social Sciences Core</td>
<td>6</td>
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<tr>
<td>FA</td>
<td>Fine Arts Core</td>
<td>3</td>
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<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
<td>3</td>
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<td></td>
<td>Liberal Arts Electives</td>
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**TOTAL** 120

**Suggested Program**

**FIRST SEMESTER**

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<tr>
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<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition &amp; Rhetoric</td>
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<tr>
<td>MATH C105</td>
<td>Intermediate Algebra</td>
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<td>WREL 101</td>
<td>Intro to World Religions</td>
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<td>FYS 101</td>
<td>First Year Seminar</td>
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**SECOND SEMESTER**

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<tbody>
<tr>
<td>FA</td>
<td>Fine Arts Core</td>
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<tr>
<td>SOC 231</td>
<td>Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>SOSC 207</td>
<td>World Geography</td>
<td>3</td>
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<td></td>
<td>Free Elective</td>
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**THIRD SEMESTER**

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<tbody>
<tr>
<td>HUM</td>
<td>Humanities Core</td>
<td>3</td>
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<tr>
<td>SOSC</td>
<td>Social Sciences Core</td>
<td>3</td>
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<tr>
<td>ECON 201</td>
<td>Macroeconomics</td>
<td>3</td>
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<td></td>
<td>Political Science Elective</td>
<td>3</td>
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<td></td>
<td>Free Elective</td>
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**FOURTH SEMESTER**

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<tr>
<td>HUM</td>
<td>Humanities Core</td>
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<tr>
<td>SOSC</td>
<td>Social Sciences Core</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Micro-Economics</td>
<td>3</td>
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<td>Political Science Elective</td>
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<td></td>
<td>Free Elective</td>
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**FIFTH SEMESTER**

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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
<td>3</td>
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<tr>
<td>PSCI 354</td>
<td>Intl. Political Economy</td>
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<td></td>
<td>Economics Elective</td>
<td>3</td>
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<tr>
<td></td>
<td>Intl Pol Econ Elective</td>
<td>3</td>
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<tr>
<td></td>
<td>Free Elective</td>
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**SIXTH SEMESTER**

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<th>Course</th>
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<th>Credits</th>
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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 206</td>
<td>North/South Relations</td>
<td>3</td>
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<td></td>
<td>Econ Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Intl. Pol Econ Elective</td>
<td>3</td>
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<tr>
<td></td>
<td>Free Elective</td>
<td>3</td>
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**SEVENTH SEMESTER**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>INTST C101</td>
<td>Integrated Studies</td>
<td>3</td>
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<tr>
<td></td>
<td>Intl. Pol Econ Elective</td>
<td>3</td>
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<td></td>
<td>Free Electives</td>
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**EIGHTH SEMESTER**

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Intl. Pol Econ Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Free Electives</td>
<td>9</td>
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</table>

*Students who do not meet the modern language requirement for the B.A. degree must use 3-12 semester hours free electives, depending on their level of competency, to satisfy this requirement.*
Literature and Civilization Bachelor of Arts Degree

Program Head: Edward Geist
Charles Dana Hall
Telephone: (203) 576-4956
Fax: (203) 576-4051
E-mail: edwgeist@bridgeport.edu

Curriculum and Program Requirements

The Literature and Civilization major, with its emphasis on the connections between the humanities as well as on their individual aspects, on abstract ideas as well as specific skills, on the global as well as the local context, ensures that students have the resources which will enable them to pursue successfully careers and leadership roles in their communities. The major provides students with the skills, knowledge, and insights which accrue from the study of history, literature, and philosophy. The degree requires 42 hours in the Humanities, 40 hours of General Education, 12 hours of Language study, and 32 hours of Electives.

In Group I students are introduced to the disciplines that make up the humanities by taking a combination of required and elective courses in fine arts, history, literature, and philosophy. The degree requires 42 hours in the Humanities, 40 hours of General Education, 12 hours of Language study, and 32 hours of Electives.

Summary of Requirements

MAJOR PROGRAM REQUIREMENTS

GROUP I: BASIC COURSES

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 305</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>HIST 101 or 102</td>
<td>World Civilization</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 205</td>
<td>Western Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>ADSN 117 or 118*</td>
<td>Survey of Art History,</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 122*</td>
<td>Music in the Liberal Arts, or</td>
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<tr>
<td>THA 103*</td>
<td>Introduction to Drama</td>
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*Students take one of these courses to satisfy the program’s Fine Arts requirement

GROUP II: PROGRAM COURSES

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<thead>
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<tbody>
<tr>
<td>HUM 300</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>HUM 395</td>
<td>Senior Thesis</td>
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GROUP III: AREAS OF CONCENTRATION

CREATIVE WRITING

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<tbody>
<tr>
<td>ENGL 201</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
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<tr>
<td>ENGL 205</td>
<td>Poetry Writing</td>
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<tr>
<td>ENGL 218</td>
<td>Autobiographical Writing</td>
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<tr>
<td>ENGL 308</td>
<td>Advanced Creative Writing</td>
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| Electives in Creative Writing | | 3

15

ENGLISH

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>ENGL 207 or 208</td>
<td>Survey of American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 209 or 210</td>
<td>Survey of British Literature</td>
<td>3</td>
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| Electives in English | | 9

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HISTORY

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<th>Hours</th>
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<tbody>
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<td>HIST 207 or 208</td>
<td>Survey of American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 233</td>
<td>The Roots of Modern Culture</td>
<td>3</td>
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| Electives in History | | 9

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PHILOSOPHY

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<tr>
<td>PHIL 203</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 216</td>
<td>Philosophy of World Religions</td>
<td>3</td>
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| Electives in Philosophy | | 9

15

GENERAL EDUCATION REQUIREMENTS

CORE (33)

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<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition &amp; Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105 or Demonstrated Math Competency</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>FYS 101</td>
<td>First Year Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FA</td>
<td>Fine Arts Core</td>
<td>3</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Core</td>
<td>6</td>
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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
<td>6</td>
</tr>
<tr>
<td>SOSC</td>
<td>Social Sciences Core</td>
<td>6</td>
</tr>
<tr>
<td>CAPS 390</td>
<td>Capstone Seminar</td>
<td>3</td>
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</tbody>
</table>
| Liberal Arts Electives | | 7

40

FOREIGN LANGUAGE

Students must demonstrate proficiency in a modern language other than English at the 104 level.

ELECTIVES AND/OR MINOR 26-38

158
**Suggested Program**

**FIRST SEMESTER**

<table>
<thead>
<tr>
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<th>Credits</th>
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<td>ENGL C101</td>
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</tr>
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<td>MATH C105</td>
<td>Intermediate Algebra</td>
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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
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<tr>
<td>Electives</td>
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**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>FA</td>
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<tr>
<td>SCI</td>
<td>Natural Sciences Core</td>
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<tr>
<td>HIST 101</td>
<td>World History (Group I)</td>
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<tr>
<td>Elective</td>
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**THIRD SEMESTER**

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<tbody>
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<td>HUM</td>
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<td>SOSC</td>
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**FOURTH SEMESTER**

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<td>HUM</td>
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<td>SOSC</td>
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<td>PHIL 205</td>
<td>Western Philosophy (Group I)</td>
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**FIFTH SEMESTER**

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<tbody>
<tr>
<td>LANG 103</td>
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<tr>
<td>ADSN 117</td>
<td>Survey of Art History I</td>
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<tr>
<td>MUSC 122*</td>
<td>Music in the literal Arts, or</td>
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<td>THA 103*</td>
<td>Introduction to Drama</td>
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**SIXTH SEMESTER**

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<thead>
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<td>LANG 104</td>
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<tr>
<td>ENGL 305</td>
<td>Shakespeare (Group I)</td>
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**SEVENTH SEMESTER**

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<tbody>
<tr>
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<td>Senior Seminar (Group II)</td>
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<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
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**EIGHTH SEMESTER**

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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HUM 395</td>
<td>Senior Thesis (Group II)</td>
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</tr>
<tr>
<td>Elective</td>
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</tbody>
</table>

**Total Semester Hours** 120
Management and Industrial Relations  Bachelor of Science Degree

Undergraduate Program Director:
Tim Raynor
Mandevelle Hall: 304
Telephone: (203) 576-4687
Fax: (203) 576-4388
E-mail: traynor@bridgeport.edu

Curriculum and Program Requirements

The Management and Industrial Relations major prepares graduates to enter the workplace as supervisors, operations managers, human resource technicians and start-up entrepreneurs. The program prepares students to take advantage of opportunities in the global job market. Research, special projects and independent study permit each student to fit the major to their personal interests, values and aspirations. Operational issues as well as broad management policy concerns are emphasized, assuring relevance of studies to a student's starting position and readiness for growth in any organization, domestic or global.

The program offers flexibility in the selection of electives to fulfill the major requirements. After completion of required courses, the student may elect courses in small business and entrepreneurship, advanced operations management, human resource skills and programs, labor law and conflict management, to complete the major.

Students following an entrepreneurial studies track, for instance, would take courses in small business, advanced operations management, and labor law; and complete an independent study focused on preparation of a comprehensive business plan for a prospective business start-up.

Students should consult with the designated undergraduate advisor to plan the selection and sequencing of courses to satisfy the major requirements.

Learning Outcomes

LEARNING OBJECTIVES

Students will: 1) learn how to work effectively with people in an organization; 2) learn the management principles necessary to pursue entry level positions; 3) learn how to effectively communicate; and 4) develop an understanding of organizational processes.

ASSESSMENT

Students will be evaluated and benchmarked with a standardized management specific test. Students' management knowledge and skills will be tested when they begin and finish their Management program with a program specific exam.

Student must earn a grade of “C” or higher in each of the four Management major electives.

Summary of Requirements

CREDITS

General Education Requirements 42
Management and Industrial Relations 51
Program Requirements 12
Management and Industrial Relations Major Electives 12
Free Electives 15
Total 120

GENERAL EDUCATION REQUIREMENTS

ENGL C101 Composition & Rhetoric 3
FYS 101 First Year Seminar 3
MATH C105 Intermediate Algebra 3
SCI Natural Sciences Core 6
HUM Humanities Core 6
ECON 201 Principles of Economics - Macro 3
ECON 202 Principles of Economics - Micro 3
ENGL 202 Advanced Composition (for Business) 3
FA Fine Arts Core 3
CAPS C390 Capstone Seminar 3
SOSC Social Sciences Core 6

PROGRAM REQUIREMENTS

ACCT 101 Principles of Accounting I 3
ACCT 102 Principles of Accounting II 3
ACCT 103 Managerial/Cost Accounting 3
CAIS 191 Computer Concepts 3
LAW 251 Business Law I 3
CAIS 101 Statistics 3
CAIS 102 Applied Statistics 3
FIN 309 Managerial Finance 3
MGMT 301 Operations Management 3
CAIS 201 Introduction to CAIS 3
MKTG 305 Principles of Marketing 3
FIN 321 Investment Principles 3
FIN 380 Multinational Finance 3
MGMT 302 Multicultural Management 3
MKTG 342 Multinational Marketing 3
MGMT 350 Business Policy and Strategy 3
BUAD 382 Senior Project/Internship 3

MANAGEMENT ELECTIVES

MGMT 300 Interpers. and Group Beh. in Org. 3
MGMT 305 Human Resource Issues in Management 3
MGMT 311 Hum. Res. Mgmt Programs and Skills 3
MGMT 320 Entrepren. and Small Bus. Mgmt 3
MGMT 340 Conflict and Negotiation 3
MGMT 342 Labor Law and Arbitration 3
MGMT 330 Leadership Lessons from the Movies 3

Select four courses 12
FREE ELECTIVES 15
Total Semester Hours 120

Suggested Program

FIRST SEMESTER

ACCT 101 Principles of Accounting I 3
ENGL C101 Composition & Rhetoric 3
MATH C105 Intermediate Algebra 3
ECON 201 Principles of Economics - Macro 3
ENGL 202 Advanced Composition 3
CAIS 101 Statistics 3
SCI Natural Sciences Core 3
FA Fine Arts Core 3
ACCT 103 Managerial/Cost Accounting 3

SECOND SEMESTER

ECON 202 Principles of Economics - Micro 3
CAIS 102 Applied Statistics 3
SOSC Social Science Core 3
FA Fine Arts Core 3
ACCT 103 Managerial/Cost Accounting 3

THIRD SEMESTER

ECON 201 Principles of Economics - Macro 3
CAIS 102 Applied Statistics 3
SOSC Social Science Core 3
FA Fine Arts Core 3
ACCT 103 Managerial/Cost Accounting 3

FOURTH SEMESTER

ECON 202 Principles of Economics - Micro 3
CAIS 201 Introduction to CAIS 3
LAW 251 Business Law I 3
SCI Natural Sciences Core 3
SOSC Social Science Core 3

FIFTH SEMESTER

FIN 309 Managerial Finance 3
MKTG 305 Principles of Marketing 3
MGMT 301 Operations Management 3
HUM Humanities Core 3
FA Fine Arts Core 3

SIXTH SEMESTER

FIN 380 Multinational Finance 3
MKTG 342 Multinational Marketing 3
Management and Industrial Relations  Bachelor of Science Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MGMT 302</td>
<td>Multicultural Management</td>
<td>3</td>
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<tr>
<td>HUM</td>
<td>Humanities Core</td>
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**SEVENTH SEMESTER**

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<tr>
<td>FIN 321</td>
<td>Investment Principles</td>
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<tr>
<td>BUAD 382</td>
<td>Senior Project/Internship</td>
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<tr>
<td></td>
<td>Major Electives</td>
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**EIGHTH SEMESTER**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>MGMT 350</td>
<td>Business Policy and Strategy</td>
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<tr>
<td>CAPS C390</td>
<td>Capstone Seminar</td>
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<tr>
<td></td>
<td>Major Electives</td>
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<td>Free Elective</td>
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</table>

**Total Semester Hours**  120
Marketing Bachelor of Science Degree

Undergraduate Program Director:
Tim Raynor
Mandeville Hall: 304
Telephone: (203) 576-4687
Fax: (203) 576-4388
E-mail: traynor@bridgeport.edu

Curriculum and Program Requirements

In order to prepare for the varied demands of a career in marketing, the Marketing major courses follow an interdisciplinary approach, stressing fundamentals of behavioral analysis, decision-making, research, and the application of managerial techniques to marketing problems.

Learning Outcomes

LEARNING OBJECTIVES

Students 1) learn to create a marketing mix to market products, services and ideas to customers; 2) acquire the knowledge to develop marketing strategy; 3) learn how to effectively communicate marketing information to their various constituencies; and 4) develop an understanding of human behavior related to marketing activity.

ASSESSMENT

Students will be evaluated and benchmarked with a standardized marketing test. Students’ marketing knowledge and skills will be tested when they begin and finish the Marketing program with a program specific exam.

Students must earn a grade of “C” or higher in each of the four marketing major courses.

Summary of Requirements

CREDITS

General Education Requirements 42
Marketing Program Requirements 51
Marketing Electives 12
Free Electives 15

120

Suggested Program

FIRST SEMESTER

ACCT 101 Principles of Accounting I 3
ENGL C101 Composition & Rhetoric 3
MATH C105 Intermediate Algebra 3
SCI C101 Natural Sciences Core 6
HUM C101 Humanities Core 6
ECON 201 Principles of Economics - Macro 3
ECON 202 Principles of Economics - Micro 3
ENGL 201 Advanced Composition 3
FA 201 Fine Arts Core 3
CAPS C300 Capstone Seminar 3

SECOND SEMESTER

ACCT 102 Principles of Accounting II 3
ENGL 202 Advanced Composition (for Business) 3
CAPS 101 Statistics 3
SCI C101 Natural Sciences Core 3
Free Elective 3

THIRD SEMESTER

ECON 201 Principles of Economics - Macro 3
ENGL 201 Advanced Composition 3
CAPS 102 Applied Statistics 3
SOSC 101 Social Science Core 3
FA 201 Fine Arts Core 3
ACCT 103 Managerial Accounting 3

FOURTH SEMESTER

ECON 202 Principles of Economics - Micro 3
ENGL 202 Advanced Composition 3
CAPS 201 Introduction to CAIS 3
MKTG 301 Principles of Marketing 3
MGMT 301 Operations Management 3

FIFTH SEMESTER

FIN 309 Managerial Finance 3
MKTG 305 Principles of Marketing 3
MGMT 301 Operations Management 3
HUM 309 Humanities Core 3
Free Elective 3

SIXTH SEMESTER

FIN 380 Multinational Finance 3
MKTG 342 Multinational Marketing 3
MGMT 302 Multicultural Management 3
HUM 309 Humanities Core 3
Free Elective 3

SEVENTH SEMESTER

FIN 321 Investment Principles 3
BUAD 382 Senior Project / Internship 3
MKTG 308 Marketing Research 3
Major Elective 3
Free Elective 3

EIGHTH SEMESTER

MGMT 350 Business Policy and Strategy 3
CAPS C390 Capstone Seminar 3
Major Electives 6
Free Elective 3

Total Semester Hours 120

GENERAL EDUCATION REQUIREMENTS

ENGL C101 Composition & Rhetoric 3
FYS 101 First Year Seminar 3
MATH C105 Intermediate Algebra 3
SCI C101 Natural Sciences Core 6
HUM C101 Humanities Core 6
ECON 201 Principles of Economics - Macro 3
ECON 202 Principles of Economics - Micro 3
ENGL 202 Advanced Composition 3
FA 201 Fine Arts Core 3
CAPS C300 Capstone Seminar 3
SOSC 101 Social Science Core 3

PROGRAM REQUIREMENTS

ACCT 101 Principles of Accounting I 3
ACCT 102 Principles of Accounting II 3
ACCT 103 Managerial/Cost Accounting 3
CAIS 191 Computer Concepts 3
LAW 251 Business Law I 3
CAIS 101 Statistics 3
CAIS 102 Applied Statistics 3
FIN 309 Managerial Finance 3
MGMT 301 Operations Management 3
CAIS 201 Introduction to CAIS 3
MKTG 308 Marketing Research 3
FIN 321 Investment Principles 3
FIN 380 Multinational Finance 3
MGMT 302 Multicultural Management 3
MKTG 342 Multinational Marketing 3
MKTG 350 Business Policy and Strategy 3
BUAD 382 Senior Project / Internship 3

MARKETING MAJOR ELECTIVES

MKTG 306 Consumer Behavior 3
MKTG 307 Management of Promotion 3
MKTG 308 Marketing Research 3
MKTG 310 Service Marketing 3
MKTG 325 Sales Management 3
MKTG 350 Marketing Management 3
MGMT 320 Entrepreneurship and Small Business Management 3

Select four courses 12

FREE ELECTIVES 15

Total Semester Hours 120
Martial Arts Studies Bachelor of Arts Degree

Curriculum and Program Requirements

The University of Bridgeport’s Martial Arts Studies program is the first degree-granting Martial Arts Studies program in the United States. A challenging program with a Liberal Arts focus, it provides a theoretical and practical understanding of the Martial Arts of East Asia which have a history of 5000 years. Students may choose from practical foci in Taekwondo, Taiji, or Karate. The program is designed to explore questions such as the role of East Asian philosophy in the Martial Arts and the psychosocial effects of the practice of the Martial Arts. Through the relationships with their teachers and their peers, the student is meant to experience a growing sense of community and shared responsibility.

The program, offered through the University’s College of Public and International Affairs, examines four dimensions of the Martial Arts, including 1) the historical and philosophical roots of the Martial Arts, 2) the languages and cultures of the societies in which the Martial Arts originated and developed, 3) in-depth study of at least one of the Martial Arts, 4) the psychosocial dimensions of the Martial Arts with a special focus on the impact that the Martial Arts have upon the human personality and upon interpersonal relations.

Students in the program may choose one of several career tracks: a Criminal Justice track; a Health Science track; or a Business track.

Learning Outcomes

Martial Arts Studies students will: 1) demonstrate critical thinking skills; 2) demonstrate basic math and science skills; 3) demonstrate strong written and oral communication skills; 4) demonstrate competency in the history, theory and practice of at least one of the Martial Arts and a good working knowledge of at least one other; 5) demonstrate a grasp of the various Martial Arts’ notion of “self cultivation” and be able to relate it to their own personal growth; 6) demonstrate the practical leadership skills and intercultural literacy needed to assume entry level leadership positions in business, government, and in civil society; 7) develop appreciation of diversity in the world and in intellectual areas such as but not limited to the humanities and the social sciences; and 8) show the desire and ability to pursue learning throughout life.

* Note that for all College of Public and International Affairs majors, a portfolio is collected to track progress in programmatic outcomes. In martial arts practice, there is regular testing and monitoring of competencies as students go through each level of a martial art.

Summary of Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WREL 205</td>
<td>Buddhism</td>
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<tr>
<td>WREL 229</td>
<td>Taoism</td>
<td>3</td>
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<tr>
<td>MARTS 261</td>
<td>Psychosocial Aspects of Martial Arts</td>
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<td>or SOC 359</td>
<td>Sociology of Sports</td>
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<tr>
<td>MARTS 212</td>
<td>The History of Martial Arts</td>
<td>3</td>
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<tr>
<td>MARTS 213</td>
<td>Martial Arts and East Asian Thought</td>
<td>3</td>
</tr>
<tr>
<td>MARTS 234</td>
<td>Issues in Taijiquan</td>
<td>3</td>
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<td>MARTS 235</td>
<td>Issues in Taekwondo</td>
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<td>MARTS 278</td>
<td>Survey of the Martial Arts</td>
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<tr>
<td>MARTS 311</td>
<td>Communication and the Martial Arts</td>
<td>3</td>
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<tr>
<td>or MCOM 290</td>
<td>Intercultural Communication</td>
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<td>MARTS 312</td>
<td>Image and Reality in the Martial Arts</td>
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<td>MARTS 398</td>
<td>Internship</td>
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<tr>
<td>MARTS 395</td>
<td>Senior Thesis/Presentation</td>
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Foundation Practica

Choose from one of the following practica:
- Taekwondo Practicum 1-8 or Taiji Practicum 1-8 8

FREE ELECTIVES                                                 21

CONCENTRATIONS (students may choose one of the following concentrations):

CONCENTRATION IN BUSINESS:

<table>
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<tbody>
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<td>Macro Economics</td>
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<tr>
<td>or ECON 202</td>
<td>Micro Economics</td>
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<tr>
<td>MKTG 305</td>
<td>Principles of Marketing</td>
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<tr>
<td>MGMT 301</td>
<td>Operations Management</td>
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<td>MGMT 302</td>
<td>Multicultural Management</td>
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HEALTH SCIENCE TRACK:

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<tr>
<td>BIOL 113</td>
<td>Anatomy and Physiology I</td>
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<tr>
<td>BIOL 114</td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>or PHYS 201</td>
<td>General Physics I</td>
</tr>
<tr>
<td>or NUTR 107</td>
<td>Basic Nutrition</td>
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CRIMINAL JUSTICE TRACK:

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<td>SOC 315</td>
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<tr>
<td>SOC 311</td>
<td>Juvenile Delinquency</td>
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<tr>
<td>SOC 270</td>
<td>Sociology of Deviance</td>
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<tr>
<td>PSCI 223</td>
<td>Introduction to the American Legal System</td>
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<td>PSCI 101</td>
<td>American Government</td>
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<td>PSCI 333</td>
<td>Terror Network</td>
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<tr>
<td>or HUSV 315</td>
<td>Substance Abuse and Chemical Dependency</td>
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GENERAL EDUCATION REQUIREMENTS

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<th>Course Title</th>
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<tbody>
<tr>
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<td>MATH C105</td>
<td>Intermediate Algebra</td>
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<td>HUM</td>
<td>Humanities Core</td>
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<td>SOSC</td>
<td>Social Sciences Core</td>
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<tr>
<td>PSYCH 103</td>
<td>Introduction to Psychology</td>
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<td>FA</td>
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<td>Natural Science Core</td>
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<td>GAPS C390</td>
<td>Capstone Seminar</td>
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<td></td>
<td>Liberal Arts Electives</td>
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</table>

TOTAL SEMESTER HOURS 120

Entering students with experience in Taekwondo, Taiji will be tested and placed in a class, which corresponds to their level of proficiency in the martial arts that they chose. Students with no experience in Taekwondo would start in level 1 and normally would graduate after four years having completed levels 1 through 8. Students entering into Taekwondo who already hold a Black Belt could advance as high as level 16 by the completion of their studies.

Similar to Taekwondo, as explained in the footnote above, students will be ranked and placed in appropriate level if they enter the program with advanced experience in Taiji.

Free electives also can be used to complete a minor/track or a concentration.
## Suggested Program

### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL C101</td>
<td>Composition &amp; Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>MATH C105</td>
<td>Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>CHN, JPN, KORN 101</td>
<td>Foreign Language Level I</td>
<td>3</td>
</tr>
<tr>
<td>WREL 205</td>
<td>Buddhism</td>
<td>3</td>
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<tr>
<td>MARTS 110 or MARTS 121</td>
<td>Taekwondo 1 or Karate Practicum 1</td>
<td>1</td>
</tr>
<tr>
<td>FYS 101</td>
<td>First Year Seminar</td>
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### SECOND SEMESTER

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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MARTS 111 or MARTS 122</td>
<td>Taekwondo 2 or Taiji Practicum 2</td>
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</tr>
<tr>
<td>CHN, JPN, KORN 102</td>
<td>Foreign Language Level II</td>
<td>3</td>
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<tr>
<td>WREL 216</td>
<td>Daoism</td>
<td>3</td>
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<tr>
<td>MARTS 212</td>
<td>The History of Martial Arts</td>
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</tr>
<tr>
<td>SCI</td>
<td>Natural Science Core</td>
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<td>Free Elective / Minor / Concentration</td>
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### THIRD SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HUM</td>
<td>Humanities Core</td>
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<tr>
<td>PSYC 103</td>
<td>Introduction to Psychology</td>
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<tr>
<td>CHN, JPN, KORN 103</td>
<td>Foreign Language Level III</td>
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<tr>
<td>MARTS 112 or MARTS 123</td>
<td>Taekwondo 3 or Taiji Practicum 3</td>
<td>1</td>
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<tr>
<td>MARTS 213</td>
<td>Martial Arts &amp; East Asian Thought</td>
<td>3</td>
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<td></td>
<td>Free Elective / Minor / Concentration</td>
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### FOURTH SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>SOSC</td>
<td>Social Sciences Core</td>
<td>3</td>
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<tr>
<td>SCI</td>
<td>Natural Science Core</td>
<td>3</td>
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<tr>
<td>CHN, JPN, KORN 104</td>
<td>Foreign Language Level IV</td>
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<tr>
<td>MARTS 114 or MARTS 124</td>
<td>Taekwondo 4 or Taiji Practicum 4</td>
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<tr>
<td>MARTS 312</td>
<td>Image &amp; Reality in the Martial Arts</td>
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### FIFTH SEMESTER

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>FA</td>
<td>Fine Arts Core</td>
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<tr>
<td>PSYC 216</td>
<td>Psychological Aspect of Martial Arts</td>
<td>3</td>
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<tr>
<td>MARTS 241</td>
<td>Taekwondo 5</td>
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<tr>
<td>MARTS 251</td>
<td>Taiji Practicum 5</td>
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<td>MARTS 278</td>
<td>Survey of the Martial Arts</td>
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<td>MARTS 311</td>
<td>Communications &amp; Martial Arts</td>
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### SIXTH SEMESTER

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<tbody>
<tr>
<td>MARTS 242 or MARTS 252</td>
<td>Taekwondo 6 or Taiji Practicum 6</td>
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<td>PSCI 321</td>
<td>Political Economy of East Asia</td>
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<tr>
<td>MARTS 234 or MARTS 235</td>
<td>Issues in Taiji or Issues in Taekwondo</td>
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<td>Liberal Arts Elective</td>
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### SEVENTH SEMESTER

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<td>CAPS 390</td>
<td>Capstone Seminar</td>
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<tr>
<td>HUM</td>
<td>Humanities Core</td>
<td>3</td>
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<tr>
<td>MARTS 243 or MARTS 253</td>
<td>Taekwondo 7 or Taiji Practicum 7</td>
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<td>Liberal Arts Elective</td>
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### EIGHTH SEMESTER

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<tr>
<td>MARTS 244 or MARTS 244</td>
<td>Taekwondo 8 or Taiji Practicum 8</td>
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<td>MARTS 395</td>
<td>Senior Thesis / Presentation</td>
<td>3</td>
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<tr>
<td>MARTS 398</td>
<td>Internship</td>
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<td>Free Elective / Minor / Concentration</td>
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**Total Semester Hours**: **120**

*Students who do not meet the modern language requirement for the B.A. degree must use 3-12 semester hours free electives, depending on their level of competency, to satisfy this requirement.*
Mass Communication Bachelor of Arts Degree

Chair: Yanmin Yu
Telephone: (203) 576-4157
Fax: (203) 576-4967
E-mail: yanmin@bridgeport.edu

Curriculum and Program Requirements

The Bachelor of Arts degree is awarded in Mass Communication, with concentrations in Advertising, International Communication, Fashion Business communication, Journalism, Public Relations, and Sports Communications. The Mass Communication Program offers students an interdisciplinary foundation in the basic theory and skills necessary to become media practitioners and more informed media consumers. Students have the opportunity for internships and independent projects that allow them to have real world experience in the mass media professions. Graduates of this program have gone on to a variety of careers in the media field, including those in advertising, corporate communication, public relations, journalism, and broadcasting. Recent graduates have also gone onto top graduate program in Journalism and Mass Communication.

Students attaining the degree in Mass Communication must complete 36 hours of coursework in the Mass Communication area. All students must complete the 12-hour core requirements. In addition, students must complete 12 hours in one of the concentrations.

In addition to the 12-hour core and 12-hour concentration, students are also required to complete an additional 12-hour elective coursework in Mass Communication for a total of 36 hours. Students are required to successfully pass courses in Mass Communication with a grade of C or better. Semester hours earned for a grade below C in an elective Mass Communication course (including those no longer offered), not raised to a C or better, will be added beyond the 120 otherwise needed for graduation.

Internships, Cooperative Education

Students are strongly encouraged to obtain working experience in the Mass Communication field through either the cooperative education program or the internship program. To participate in either co-op or internship, students must meet the following requirements:

1. Be of junior standing;
2. Have completed at least 18 hours of coursework in mass communication;
3. Have at least a 2.5 QPA in mass communication with no grade below a C-minus;
4. Be a student in good academic standing at the university;
5. Students may apply three (3) semester hours of co-op internship or independent study to the thirty-six (36) hours required in the mass communication major. Additional hours of co-op, internship or independent study credit may be applied to general elective credits required for graduation.

Depth Study

Students are encouraged to obtain a minor of 18-24 semester hours in another department, or a concentration of 15 semester hours of related courses outside Mass Communication minor and concentrations should be chosen in consultation with an advisor.

Learning Outcomes

Students of the B.A. in Mass Communication Program will: 1) demonstrate effective speaking and listening skills for communication in personal, public, and media areas; 2) demonstrate effective writing skills for communication in personal, public, and media areas; 3) demonstrate the ability to observe events, gather information, write news reports and news releases, report on events, and edit other people’s writings; 4) demonstrate the ability to understand the media critically and recognize how media shape and are shaped by politics, society, culture, economics, and daily lives; 5) demonstrate the ability to recognize the power of persuasion and ethical responsibilities of communicators in communication at all levels; 6) demonstrate an understanding of the roles of communication in fostering interaction and interdependence across gender, race, and culture; 7) demonstrate the ability to apply communication theories to analyze contemporary problems; 8) demonstrate an understanding of the history, development, and practice of the print media, electronic media, and the new media.

*Note that for all College of Public and International Affairs majors, a portfolio is collected to track progress in programmatic outcomes.

Summary of Requirements

PROGRAM REQUIREMENTS (36 SEMESTER HOURS)

<table>
<thead>
<tr>
<th>MASS COMMUNICATION CORE</th>
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<tbody>
<tr>
<td>MCOM 110 Public Communication 3</td>
</tr>
<tr>
<td>MCOM 111 Introduction to Mass Communication 3</td>
</tr>
<tr>
<td>MCOM 211 Communication Theory 3</td>
</tr>
<tr>
<td>MCOM 395 Senior Seminar in Mass Communication 3</td>
</tr>
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<table>
<thead>
<tr>
<th>CONCENTRATIONS</th>
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<tbody>
<tr>
<td>Choice of 15 semester hours in one of the concentrations listed below</td>
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<table>
<thead>
<tr>
<th>ADVERTISING</th>
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<tbody>
<tr>
<td>MCOM 220 Introduction to Advertising 3</td>
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<table>
<thead>
<tr>
<th>TAKE FOUR course from the following:</th>
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<tbody>
<tr>
<td>MCOM 323 Advertising Copywriting 3</td>
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<tr>
<td>MCOM 330 Advertising Media Planning 3</td>
</tr>
<tr>
<td>MCOM 339 Advertising and PR Campaigns 3</td>
</tr>
<tr>
<td>MCOM 201 Persuasive Communication 3</td>
</tr>
<tr>
<td>MCOM 270 Public Relations 3</td>
</tr>
<tr>
<td>MCOM 357 Portfolio Project 3</td>
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<table>
<thead>
<tr>
<th>INTERNATIONAL COMMUNICATION</th>
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<tr>
<td>(Plus any four of the following courses)</td>
</tr>
<tr>
<td>MCOM 284 Business and Professional Communication 3</td>
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<tr>
<td>SOC 231 Cultural Anthropology 3</td>
</tr>
<tr>
<td>PSCI 204 Government and Politics Abroad 3</td>
</tr>
<tr>
<td>PSCI 305 International Relations 3</td>
</tr>
<tr>
<td>PSCI 312 Diplomacy &amp; Foreign Policy</td>
</tr>
<tr>
<td>or PSCI 207 World Politics</td>
</tr>
<tr>
<td>or PSCI 209 Intro to United Nations Studies 3</td>
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<tr>
<td>WREL 275 Religion, Conflict and Mediation 3</td>
</tr>
<tr>
<td>WREL 305 Comparative Religious Ethics 3</td>
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</table>

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Mass Communication Bachelor of Arts Degree

WREL 374  Religion and Politics in the Middle East  3
WREL 348  Religion and Society  3
WREL 288  Internet Religion  3
WREL 305  Comparative Religious Ethics  3
WREL 348  Religion and Society  3

FASHION JOURNALISM
MCOM 247  Fashion Journalism  3
FM 101  Fashion Fundamentals  3
MCOM 392  Fashion Journalism Internship  3
Take TWO courses from the following:
MCOM 240  News Reporting & Writing  3
MCOM 284  Business and Prof Communication  3
MCOM 341  Magazine and Feature Writing  3
MCOM 345  Newspaper Editing & Production  3
MCOM 390  Media Law and Ethics  3

JOURNALISM
MCOM 240  News Reporting  3
MCOM 341  Magazine and Feature Writing  3
MCOM 345  Newspaper Editing and Production  3
MCOM 360  Broadcast Journalism  3
MCOM 390  Media Law and Ethics  3

PUBLIC RELATIONS
MCOM 270  Public Relations  3
Take FOUR courses from the following:
MCOM 201  Persuasive Communication  3
MCOM 346  Media Management  3
MCOM 384  Organizational Communication  3
MCOM 339  Advertising and PR Campaigns  3
MCOM 370  Publicity Methods  3

SPORTS JOURNALISM
MCOM 251  Sports Journalism  3
MCOM 398  Sports Journalism Internship  3
Take THREE courses from the following:
MCOM 240  News Reporting & Writing  3
MCOM 255  Sports Business and Marketing  3
MCOM 360  Broadcast Journalism  3
MCOM 341  Magazine and Feature Writing  3
MCOM 354  Media, Sports, & Society  3
PSYC 355  Sports Psychology  3
MCOM 390  Media Law and Ethics  3

MASS COMMUNICATION ELECTIVES  __________  12

FREE ELECTIVES*  _________________  33
FOREIGN LANGUAGE  __________  6

GENERAL EDUCATION REQUIREMENTS
ENGL C101  Composition and Rhetoric  3
MATH C105  Intermediate Algebra  3
HUM  Humanities Core  6
SOC  Social Science Core  6
FA  Fine Arts Core  3
SCI  Natural Science Core  6
FYS 101  First Year Seminar  3
CAPS C390  Capstone Seminar  3
Liberal Arts Electives  7

TOTAL SEMESTER HOURS  _____________  120

Suggested Program (Advertising)

FIRST SEMESTER
FYS 101  First Year Seminar  3
ENGL C101  Composition and Rhetoric  3
HUM  Humanities Core  3
MCOM 110  Public Communication  3
Foreign Language  3

SECOND SEMESTER
MATH C105  Intermediate Algebra  3
m or MATH C108  Ideas of Mathematics  3
HUM  Humanities Core  3
MCOM 111  Introduction to Mass Communication  3
Foreign Language  3
Elective  3

THIRD SEMESTER
SOC  Social Science  3
FA  Fine Arts Core  3
MCOM 211  Communication Theory  3
MCOM 220  Introduction to Advertising  3
or MCOM 270  Public Relations  3
Elective  3

FOURTH SEMESTER
SOC  Social Science Core  3
MCOM 323  Advertising Copywriting  3
or MCOM 370  Publicity Methods  3
Mass Communication Elective  3
Elective  3

FIFTH SEMESTER
SCI  Natural Science Core  3
MCOM 330  Advertising Media Planning  3
Mass Communication Elective  3
Elective  3

SIXTH SEMESTER
SCI  Natural Science Core  3
MCOM  Advertising and PR Campaigns  3
Mass Communication Elective  3
Liberal Arts Elective  3
Elective  3

SEVENTH SEMESTER
CAPS C390  Capstone Seminar  3
or MCOM 395  Senior Seminar in Mass Communication  3
Mass Communication Elective  3
Liberal Arts Elective  3
Electives  6

EIGHTH SEMESTER
CAPS C390  Capstone Seminar  3
Electives  12

Total Semester Hours  _____________  120

*Students who do not meet the modern language requirement for the B.A. degree must use 3-12 semester hours free electives, depending on their level of competency, to satisfy this requirement.
Mathematics Bachelor of Arts Degree

Chair:
Charles Dana Hall, Room 151
Telephone: (203) 576-4268
Fax: (203) 576-4051
E-mail:

Curriculum and Program Requirements

Mathematics programs at the University of Bridgeport are designed to prepare the student for graduate work in applied mathematics and allied areas, industrial employment and government employment as well as for careers in teaching, actuarial science and the quantitative areas of the biological and social sciences.

Bachelor of Arts requires a total of 30 semester hours in mathematics and at least three additional semester hours from mathematics or related area courses numbered 200 or above. All degree programs in Mathematics require Computer Science 101 and 102.

Students may take additional mathematics electives; those who intend to go to graduate school are advised to elect one or more of those 400 level mathematics courses which are open to undergraduates and described in the graduate catalog. A total of 120 semester hours is required for graduation.

For any of these major or minor degrees, the student is expected to work out a meaningful program with his/her advisor.

The following year-by-year course displays are to be regarded as illustrative of a typical program leading to a Bachelor’s degree in mathematics with a total of 120 semester hours required for graduation.

Learning Outcomes

Students with a B.A. in Mathematics will 1) have learned fundamental knowledge of Mathematics and be prepared to pursue graduate study in mathematics; 2) have well-developed quantitative and analytical skills; 3) be able to use skills in mathematical reasoning and critical thinking to understand and analyze phenomena of nature, modern science and society; 4) be able to make inferences from data and to communicate, prove and justify their findings; 5) be prepared for various qualifying examinations such as the GRE and PRAXIS.

Summary of Requirements

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>MATH 110 Calculus and Analytic Geometry I 4</td>
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<tr>
<td>MATH 112 Calculus and Analytic Geometry II 4</td>
</tr>
<tr>
<td>MATH 214 Linear Algebra 3</td>
</tr>
<tr>
<td>MATH 215 Calculus and Analytic Geometry III 4</td>
</tr>
<tr>
<td>MATH 227 Discrete Structures 3</td>
</tr>
<tr>
<td>MATH 301 Differential Equations 3</td>
</tr>
<tr>
<td>MATH 314 Numerical Methods 3</td>
</tr>
<tr>
<td>MATH 323 Probability and Statistics I 3</td>
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<td>Mathematics electives* 3</td>
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<td>Mathematics or cognate electives* 3</td>
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<tr>
<td>CPSC 101 Introduction to Computing I 4</td>
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<tr>
<td>CPSC 102 Introduction to Computing II 4</td>
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<table>
<thead>
<tr>
<th>GENERAL EDUCATION REQUIREMENTS</th>
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<tr>
<td>MCOM 110 Public Communication 3</td>
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<tr>
<td>FYS 101 First Year Studies 3</td>
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<tr>
<td>ENGL C101 Composition &amp; Rhetoric 3</td>
</tr>
<tr>
<td>PHYS 111/112 Principles I &amp; II 8</td>
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<tr>
<td>HUM Humanities Core 6</td>
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<td>FA Fine Arts Core 3</td>
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<td>SOSC Social Sciences Core 6</td>
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<td>MATH 227 Discrete Math 3</td>
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<tr>
<td>CPSC C390 Capstone Seminar 3</td>
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| FOREIGN LANGUAGE** 6 |
| FREE ELECTIVES 35 |
| Total Semester Hours 122 |

* Mathematics and cognate courses at the 200 level or higher.
** Six credit hours of a single language.

Suggested Program

FIRST YEAR
| ENGL C101 Composition & Rhetoric 3 |
| MATH 110 Calculus I 4 |
| CPSC 101 Introduction to Computing I 4 |
| FYS First Year Seminar 3 |
| MATH 112 Calculus II 4 |
| PHYS 111 Principles of Physics I 4 |
| CPSC 102 Introduction to Computing II 4 |
| MCOM 110 Public Communication 3 |

SECOND YEAR
| MATH 214 Linear Algebra 3 |
| MATH 215 Calculus III 4 |
| PHYS 112 Principles of Physics II 4 |
| FA Fine Arts Core 3 |
| MATH 301 Diff. Equations 3 |
| MATH 323 Probability & Statistics I 3 |
| SOSC Social Sciences Core 3 |
| PHYS 209 Principles of Physics III 4 |

THIRD YEAR
| MATH 314 Numerical Methods 3 |
| Math Electives 6 |
| MATH 227 Discrete Math 3 |
| SOSC Social Sciences Core 3 |
| MATH 391 Modern Algebra 3 |
| HUM Humanities Core 6 |

FOURTH YEAR
| HUM Humanities Elective 3 |
| SOSC Social Sciences Elective 3 |
| Math Electives 9 |
| MATH 399 Topic in Math 3 |
| Free Electives 9 |
| Caps C390 Capstone Seminar 3 |

Total Semester Hours 122
Mathematics Bachelor of Science Degree

Chair:
Dana Hall, Room 151
Telephone: (203) 576-4268
Fax: (203) 576-4051
E-mail:

Curriculum and Program Requirements

Bachelor of Science in Mathematics is, primarily, a program in applied mathematics. It provides the student with the fundamentals of major areas of mathematics, with special emphasis on those branches of mathematics that are important in applications. The program provides the necessary background for students who wish to apply mathematics in the natural sciences, as well as for a career in business. Employment opportunities for applied mathematicians exist in industries, medical technology, and financial institutions.

Students are encouraged to select an area of concentration in addition to satisfying the program requirements. Choices for a concentration include the natural sciences, computer science, social sciences or education.

Bachelor of Science requires a total of 30 semester hours in mathematics and at least 9 semester hours in mathematics or cognate areas. Students may take additional mathematics electives; those who intend to go to graduate school are advised to elect one or more of those 400 level mathematics courses which are open to undergraduates and described in the graduate catalog. Computer Science 101 and 102 are required, including their laboratory components. A total of 120 semester hours is required for graduation.

MATHEMATICS MINOR

Students wishing to obtain a minor in mathematics must take Math 110, Math 112, Math 215 and at least 2 courses at the 200 level or higher.

For any of these major or minor degrees, the student is expected to work out a meaningful program with his/her advisor. The following year-by-year course displays are to be regarded as illustrative of a typical program leading to a Bachelor's degree in mathematics with a total of 120 semester hours required for graduation.

Learning Outcomes

Students with a B.S. in Mathematics will 1) have learned fundamental knowledge of Mathematics and be prepared to pursue graduate study in mathematics; 2) have well-developed quantitative and analytical skills; 3) be able to use skills in mathematical reasoning and critical thinking to understand and analyze phenomena of nature, modern science and society; 4) be able to make inferences from data and to communicate, prove and justify their findings; 5) be prepared for various qualifying examinations such as the GRE and PRAXIS.

Summary of Requirements

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>MATH 110 Calculus &amp; Analytic Geometry I</td>
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<tr>
<td>MATH 112 Calculus &amp; Analytic Geometry II</td>
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<tr>
<td>MATH 214 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 215 Calculus &amp; Analytic Geometry III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 227 Discrete Structures</td>
<td>3</td>
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<tr>
<td>MATH 301 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 314 Numerical Methods</td>
<td>3</td>
</tr>
<tr>
<td>MATH 323 Probability &amp; Statistics I</td>
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<tr>
<td>CPSC 102 Introduction to Computing II</td>
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ELECTIVES IN CONCENTRATION 33

GENERAL EDUCATION REQUIREMENTS

<table>
<thead>
<tr>
<th>GENERAL EDUCATION REQUIREMENTS</th>
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<tbody>
<tr>
<td>MCOM 110 Public Communication</td>
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<td>ENGL C101 Composition &amp; Rhetoric</td>
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<tr>
<td>PHYS 111/112 Principles I &amp; II</td>
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<td>HUM Humanities Core</td>
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<td>FYS 101 First Year Studies</td>
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<tr>
<td>FA Fine Arts Core</td>
<td>3</td>
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<tr>
<td>SOSC Social Sciences Core</td>
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<td>CAPS C390 Capstone Seminar</td>
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Total Semester Hours 120

Suggested Program

FIRST YEAR

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<tbody>
<tr>
<td>ENGL C101 Composition &amp; Rhetoric</td>
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<tr>
<td>MATH 110 Calculus I</td>
<td>4</td>
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<tr>
<td>CPSC 101 Introduction to Computing I</td>
<td>4</td>
</tr>
<tr>
<td>MCOM 110 Public Communication</td>
<td>3</td>
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<tr>
<td>FYS 101 First Year Studies</td>
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<tr>
<td>MATH 112 Calculus II</td>
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<tr>
<td>PHYS 111 Principles I &amp; II</td>
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SECOND YEAR

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THIRD YEAR

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Total Semester Hours 120

* Mathematics and cognate courses at the 200 level or higher.
Medical Laboratory Science  Bachelor of Science Degree

Program Director: Wayne Aguiar MS, MLS(ASCP)/SM
Dana Hall, Room 151
Telephone (203) 576-4268
Fax: (203) 576-4262
E-mail: waguiar@bridgeport.edu
Clinical Director: Kathleen Engelman, Ph.D., CLS (NCA)
Dana Hall, Room 213
Telephone: (203) 576-4253
Fax: (203) 576-4262
E-mail: engelmann@bridgeport.edu

Curriculum and Program Requirements
A B.S. degree in Medical Laboratory Science provides exciting opportunities for individuals with an interest in science who wish to pursue a career in a health/medical profession or other laboratory-related field. Medical Technologists, also called Clinical Laboratory Scientists, analyze human blood and other body fluids using a variety of methods and precision instruments. The results of these analyses are used to determine the presence or absence of disease, help determine appropriate treatment, monitor therapy, and assess health. In addition to performance and interpretation of laboratory procedures, clinical laboratory scientists may be involved in the selection of lab methods or analyzers, as well as training, supervision, and consultation with other health care professionals.

The program is currently licensed by the state of CT to offer a program and pending national program accreditation, completion of the degree will lead to eligibility for certification by the Board of Registry of the American Society of Clinical Pathology as a Medical Laboratory Scientist. Granting of the degree/certificate IS NOT contingent on passing any type of external certification or licensure examination.

The UB Medical Laboratory Science program is pursuing accreditation through the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119

Learning Outcomes
Upon successful completion of this program, students will:
1. Be proficient in performing the full range of clinical laboratory tests in areas such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular, and other emerging diagnostics.
2. Be able to participate in the development and evaluation of test systems and interpretive algorithms, hold diverse.
3. Responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed or performed.
4. Possess basic knowledge, skills, and relevant experiences in consultative interactions with members of the healthcare team, external relations, customer service and patient education; financial, operations, marketing, and human resource management; information management, and research design/practice sufficient to evaluate published studies as an informed consumer.
5. Be proficient in maintaining necessary operations for the general functions of the clinical laboratory, including specimen collection.

Entrance Requirements and Advising
Incoming Freshman who have met the following criteria: (a) SAT scores of 530 verbal and 520 math, and 480 writing or composite ACT score of 22; (b) Grade point average of B (3.0) or better; (c) Three years of mathematics and two lab sciences in high school can declare a MT major at any time during the first two years of study.

The formal Medical Laboratory Science curriculum encompasses the last two years of study. All prospective MT majors, including transfer students will be evaluated prior to the fall semester of the junior year to determine whether all the necessary pre-requisites have been met or are in progress. To continue into the junior year of the program all MT majors must complete a minimum 61 semester hours including all UB general education requirements, except Capstone, and all science foundation courses. Students must maintain a minimum GPA of 2.50. MT majors are required to maintain a grade of C or better in all science foundation courses. Applications from transferring sophomores will be accepted for the Fall 2011 or later. Applications from transferring juniors will be accepted for the Fall 2012 or later. Application from transferring seniors will not be accepted, however exceptions may be made for students transferring from NAACLS accredited 3+1 university-based programs on a case by case basis for the Fall 2013 or later.

TOEFL scores
Paper-based: 550
Computer-based: 213
Internet-based: 80
We also accept the IELTS (International English Language Testing System) and require an Overall band score of 6.5 and no part score lower than 6.0

Program Requirements and Features
Completion of the Medical Laboratory Science degree requires 28 weeks of supervised clinical work in a hospital laboratory, provided by our clinical affiliates.

Since the curriculum includes laboratory work done under professional supervision, the degree candidate not only must satisfy the customary expectations of academic work but also must meet the high-quality standards demanded of a professional medical technologist. Students must maintain a minimum GPA of 2.50. MT students are required to maintain a grade of C or better in all required courses. MT students must pass a comprehensive pre-clinical examination prior to pursuing their clinical rotations.

Individual professional liability insurance is required of each student and can be purchased through American Society for Clinical Laboratory Science (ASCLS).

Criminal background checks are required before clinical rotations. A background check that is not “clear” may preclude rotations at some hospitals and prevents em-
Medical Laboratory Science Bachelor of Science Degree

Employment at most healthcare facilities.

As a closure requirement for graduation, students must pass a comprehensive department examination covering all aspects of clinical laboratory science. However, issuing of the degree is not contingent on passing any type of external certification or licensure examination.

Pre-Physician Assistant and Health Professional Options

The Medical Laboratory Science Major meets all pre-requisites for UB’s Physician Assistant program, including 500 hours of clinical experience. Successful graduates of the Medical Laboratory Science Program are also highly competitive for other medical, health, and research oriented graduate programs.

Medical Laboratory Science MINOR option

Biology majors wishing to obtain a minor in Medical Laboratory Science must take BIOL 102, BIOL 320, BIOL 332, BIOL 441, BIOL 443 CHEM 360, CHEM 380, and at least two 300 level MLS courses. Students interested in this program should contact the Medical Laboratory Science Program Director. A minor in Medical Laboratory Science will not lead to eligibility for certification as a Medical Laboratory Scientist.

Medical Laboratory Certificate: A categorical certificate option for people already possessing a BS degree and meeting the necessary pre-requisites is available and requires a customized plan of study, please see the program director for further information and a consultation.

Summary of Requirements

PROGRAM REQUIREMENTS

Medical Laboratory Science Courses

- MLSC 441 Immunology 4
- MLSC 352 Medical Bacteriology 4
- CHEM 380 Physiological Chemistry 4
- MLSC 314 Intro to Immunohematology 2
- MLSC 310 Intro to Hematology/Hemostasis 2
- BIOL 443 Molecular Biology 4
- MLSC 311 Intro to Clinical Chemistry 3
- MLSC 317 Mycology/Parasite/Virology 4
- MLSC 301 Phlebotomy/Safety 2
- MLSC 410 Advanced Hematology 2
- MLSC 411 Advanced Clinical Chemistry 2
- MLSC 414 Advanced Immunohematology 2
- MLSC 320 Preclinical Seminar 1
- MLSC 321 Clinical Seminar I/Education 1
- MLSC 322 Clinical Seminar II Management 1
- MLSC 380 Phlebotomy Internship 2
- MLSC 431 Clinical Correlations (Clinical) 2
- MLSC 421 Clinical Chem Lab Rotation 5
- MLSC 424 Clinical Immunohematology Laboratory Rotation 3
- MLSC 420 Clinical Hematology Lab Rotation 4
- MLSC 422 Clinical Micro Lab Rotation 4

Science Foundation Courses

- BIOL 102 General Biology II 4
- BIOL 211 General Physiology 4
- CHEM 205 Organic Chemistry I 4
- MATH 203/203B Biostatistics 4
- CHEM 206 Organic Chemistry II 4
- CHEM 302 Analytical Methods 4
- CHEM 360 Biochemistry 3
- CHEM 380 Physiologic Chemistry 3
- BIOL 320 Microbiology 4
- PIDS 201 General Physics I* 4
- BIOL 307 Genetics* 3

*Recommended courses.

GENERAL EDUCATION REQUIREMENTS

- ENGL 101 English Composition 3
- ENGL 101 First Year Seminar 3
- MATH 109 Precalculus 4
- CHEM 103 General Chemistry I 4
- CHEM 104 General Chemistry II 4
- PHIL 110 Healthcare Ethics 3
- PUB 110人类ities Core 5
- PSYC 380 Biological Psychology 3
- FA  Fine Arts Core 3
- CAPS 390 Capstone 3

Total Semester Hours 121-128

Suggested Program

FRESHMAN YEAR

Fall Semester
- ENGL 101 English Composition 3
- PHYS 101 First Year Seminar 3
- MATH 109 Precalculus 4
- CHEM 103 General Chemistry I 4
- BIO 102 General Bio 102 4

Spring Semester
- SS, 1Social Science, 1HU Humanities 6
- CHEM 104 General Chemistry II 4
- BIOL 211 General Physiology 4
- PHIL 110 Human Health 3

Senior Year (Clinicals)

Fall Semester
- MLSC 411 Advanced Clinical Chemistry 2
- MLSC 410 Advanced Hematology 2
- MLSC 321 Clinical Seminar I Education 1
- MLSC 420 Clinical Hematology Rotation 4
- MLSC 421 Clinical Chemistry Rotation 5

Spring Semester (Clinical continued)
- MLSC 322 Clinical Seminar II Management 1
- MLSC 414 Advanced Immunohematology 2
- MLSC 431 Clinical Correlations 2
- MLSC 380 Phlebotomy rotation 1
- MLSC 432 Clinical Research 1
- MLSC 424 Clinical Immunohemoto Rotation 3
- MLSC 422 Clinical Microbiology Rotation 4

Total Semester Hours 129
Music Bachelor of Music Degree

Program Head: Jeffrey Johnson
Bernhard Center, Room 310
Telephone: (203) 576-4407
Fax: (203) 576-4052
E-mail: jjohnson@bridgeport.edu

Curriculum and Program Requirements
The Music Program offers the Bachelor of Music degree with concentrations in, Music Education, Performance, Jazz Studies and Music Business. Bachelor of Music candidates must complete all academic core courses, music foundation courses, and the specific requirements of their concentration before graduating. The Program Director may determine that proficiency is established and may waive requirements; however, 120 credits are required to earn a Bachelor’s degree.

Music Education
The Music Education concentration of the Bachelor of Music degree is designed to provide foundational training and experiences for prospective music teachers, and prepare them to enter a master’s degree program in music education. The Music Program and the University’s School of Education offers a master’s degree (M.S.) which leads to initial teaching certification in music.

Music Performance
The Music Performance concentration of the Bachelor of Music degree is designed to refine and develop skills essential to professional musicians. Extensive collaborative performing experience in ensembles, solo performance, and private study on a major instrument are central to this concentration. Students are expected to study a major instrument including bass, bassoon, clarinet, drumset, flute, guitar, harpsichord, horn, oboe, percussion, piano, saxophone, sitar, tabla, trumpet, trombone, tuba, violin, viola, violoncello, or voice.

Music Business
A highly demanding combination of intensive musical studies and business courses designed to help musicians become entrepreneurial professions ready to succeed in today’s marketplace.

JURIES
At the discretion of the applied music faculty in consultation with the Program Director, during the final examination period of each semester, music majors will take an examination in their major applied area before a music faculty jury.

Learning Outcomes
By completing the Bachelor of Music degree students will: 1) develop a strong foundation in the theory and history of music; 2) select a musical concentration—performance, education, or music business—and develop foundational skills in this area; 3) further develop skills in voice or on a musical instrument; 4) possess sufficient musical acumen to make creative contributions to musical performances and fusion ensembles; 5) further their ability to work in, learn from, and teach groups composed of learners from diverse backgrounds and with multiple skill levels; and 6) be able to bring musical knowledge into dialogue with learning occurring in the general education component of the undergraduate curriculum.

Summary of Requirements

REQUIREMENTS FOR ALL CONCENTRATIONS

GENERAL EDUCATION REQUIREMENTS
ENGL C101 Composition & Rhetoric 3
MATH C105 Intermediate Algebra 3
HUM Humanities Core 6
SOSC Social Sciences 6
SCI Natural Sciences Core 6
FA Fine Arts Core 3
FYS 101 First Year Studies 3
CAPS C390 Capstone Seminar 3
Liberal Arts Electives 7

40

MUSIC FOUNDATION COURSES
MUSC 109 Theory 1 3
MUSC 110 Theory 2 3
MUSC 215 Theory 3 3
MUSC 216 Theory 4 3
MUSC 109a Aural Theory 1 or 2
MUSC 110a Aural Theory 1
MUSC 215a Aural Theory 1
MUSC 216a Aural Theory 1
At least three credits of piano study.
At least twelve credits in the history and literature of music.
At least three credits in music technology.

34-35

INDIVIDUAL CONCENTRATION REQUIREMENTS

MUSIC EDUCATION CONCENTRATION
MUSC 100 Applied Music Study 12
MUSC Ensembles (103,104,10,107) 10
MUSC 183 Group Voice 3
MUSC 208 Jazz Improvisation & Repertoire 3
MUSC Instrumental Methods Courses 9
MSED 240 Field Experience in Music Ed 2
MUSC 256 Fundamentals of Piano II 3
MSED 311 Vocal Conducting 3

Enrollment in at least one ensemble is required each semester of residence, including at least two semesters in a choral ensemble and two in an instrumental ensemble. Enrollment in applied music study is required for at least six semesters in residence or every semester of residence for transfer students. Director may determine that proficiency is established and may waive requirements.

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Music Bachelor of Music Degree

### Performance Concentration

- **MUSC 100** Applied Major 16
- **MUSC 414** Business of Music 2
- Ensembles 12
- Electives 6

At least nine credits of music technology or music business courses.

Director may determine that proficiency is established and may waive requirements.

### Music Business Concentration

- **MUSC 100** Applied Major 15
- **MUSC 398** Internship 3
- **MUSC 414** Business of Music 3

*(In consultation with an Academic Advisor, students choose nine non-music courses from this list)*

- **ACCT 101** Financial Accounting 3
- **ECON 201** Princ Economics-Macro 3
- **ECON 202** Princ. Econmic-Micro 3

And 15 credits of approved electives from business, mass communications, or music technology.

Director may determine that proficiency is established and may waive requirements.

*Recommended

### Music Education Concentration

#### Suggested Program

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<th>FRESHMAN YEAR</th>
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Total Semester Hours **120**

### Music Performance Concentration

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Total Semester Hours **120**

### Music Business Concentration

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Total Semester Hours **120**
### Music Bachelor of Music Degree

#### JUNIOR YEAR

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#### SENIOR YEAR

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**Total Semester Hours**  
120
Professional Studies  Bachelor of Science Degree

Director: Michael Giampaoli (interim)
Wahlstrom Library
Telephone: (203) 576-4168
Fax: (203) 576-4537
Email: g michael@bridgeport.edu

Curriculum and Program Requirements

The Bachelor of Science in Professional Studies is a multidisciplinary degree-completion program that refines student skills and abilities for application in a broad range of professions. The program is intended for non-traditional, part-time students who are currently employed in technical, professional, or entry-level positions, and who have acquired an associate’s degree or completed at least 30 transferable credits from accredited institutions. The program is designed to provide career-focused learning geared toward coursework in organizational communication and leadership for students who desire to enhance their knowledge, analytical abilities and critical thinking skills for advancement in their career field.

Degree Requirements

1) A minimum of 120 hours with a minimum cumulative quality point ratio of 2.00.
2) The student must complete a professional studies core, the University general education core and then choose a concentration in one of three areas:
   a) Organizational Leadership and Change
   b) Healthcare Administration
   c) Human Resource Administration

Learning Outcomes

The Professional Studies major will prepare graduates to:

- Communicate in diverse, team-oriented workplaces through group presentations, oral and written reports, and communication formats tailored for business environments.
- Analyze and comprehend the leadership and interpersonal competencies essential to effective management and administration.
- Understand the ethical standards, values and attitudes appropriate to professionals.
- Gain knowledge, skills, and abilities associated with workplace success.

Additionally, the Organizational Leadership Track will prepare graduates to:

- Demonstrate leadership skills in visioning, strategic planning, and managing change.
- Demonstrate managerial skills in budgeting and finance, management of personnel, safety, information systems, and technology in the workplace.
- Find the most current and best available research and apply evidence-based practices to organizational change.

Additionally, the Human Resource Administration Track will prepare graduates to:

- Evaluate the effectiveness of recruiting methods and the validity of various selection procedures.
- Design and execute a training project using the appropriate theories and facilitation skills.
- Design competitive pay structures and performance-based incentive systems.
- Explain employee and employer rights and obligations in a collective bargaining situation.
- Design human resource policies and practice that comply with labor and employment legislation and regulations.

Additionally, the Healthcare Administration Track will prepare graduates to:

- Demonstrate the knowledge of the fundamental and technical concepts of health care management and apply it to decision-making in managing within healthcare organizations.
- Demonstrate knowledge of the core disciplines of healthcare administration: healthcare organization and structure, healthcare finance, healthcare policy, and/or public health to enhance decision-making in managing the healthcare organizations.
- Use contemporary federal and state health policies to analyze various healthcare issues.
- Demonstrate knowledge of the primary ethical values underlying the healthcare institutions and delivery (i.e., respect for persons, beneficence, and justice, in managerial decision-making).
- Apply basic statistical, quantitative, and economic concepts and tools to support analysis and decision-making.

Summary of Requirements

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<tr>
<th>Requirement</th>
<th>Credits</th>
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<td>General Education</td>
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PROFESSIONAL STUDIES PROGRAM REQUIREMENTS (24 CREDITS)

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<tr>
<td>PRST 201</td>
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<td>PRST 204</td>
<td>Social Impact of Technology</td>
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<td>PRST 202</td>
<td>Business Math</td>
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<td>PRST 220</td>
<td>Analytical &amp; Persuasive Writing</td>
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<td>PRST 224</td>
<td>Critical Thinking &amp; Writing</td>
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<td>MOOM 284</td>
<td>Business &amp; Professional Communications</td>
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<tr>
<td>MOOM 110</td>
<td>Public Communications</td>
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<td>PRST 250</td>
<td>Budgeting &amp; Finance for Organizations</td>
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GENERAL EDUCATION REQUIREMENTS (42 CREDITS)

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<tr>
<th>Course</th>
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<td>ENGL 101</td>
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<td>FYS 102</td>
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<td>MATH 105</td>
<td>Mathematics</td>
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<tr>
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<td>Natural Sciences (6 credits)</td>
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<tr>
<td>HUM</td>
<td>Humanities (6 credits)</td>
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<td>SOSC</td>
<td>Social Science (6 credits)</td>
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<td>LA</td>
<td>Liberal Arts Electives (9 credits)</td>
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<tr>
<td>CAPS 390</td>
<td>Capstone</td>
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Concentration Requirements:
A minimum of 21 credits is required in one of the following areas of concentration.

**ORGANIZATIONAL LEADERSHIP AND CHANGE (21 CREDITS)**
- MCOM 384 Organizational Communication
- MGMT 300 Organizational Behavior
- ORLD 341 Supervision and Team Building
- ORLD 342 Non-profit Management
- ORLD 350 Organizational Change and Leadership
- PSYC 309 Industrial/Organizational Psychology
- ORLD 351 Challenges in Leadership Seminar

**HEALTHCARE ADMINISTRATION (21 CREDITS)**
- HSCI 250 Introduction to Community & Public Health
- HLAD 333 Management of Health Care Information Systems
- HLAD 331 Law and Ethics in Health Care
- HLAD 334 Health Care Financial Management
- HLAD 332 Health Care Organization & Administration
- PSYC 385 Statistics for the Behavioral Sciences
- HLAD 335 Health Care Strategic Management

**HUMAN RESOURCES ADMINISTRATION (21 CREDITS)**
- MGMT 300 Organizational Behavior
- MGMT 305 Introduction to Human Resource Management
- MGMT 311 Compensation & Benefits
- MGMT 340 Conflict & Negotiation
- HRAD 344 Training Methods
- MGMT 342 Labor Law
- PSYC 309 Organizational Psychology

**GENERAL ELECTIVE COURSES (33 CREDITS)**

**TOTAL SEMESTER HOURS 120**
Psychology Bachelor of Science Degree

Co-Chair: Tracey Ryan
Charles A. Dana Hall
Telephone: (203) 576-4175
Fax: (203) 576-4200
E-mail: tryan@bridgeport.edu

Curriculum and Program Requirements

The Bachelor of Science degree in Psychology prepares students for work that requires liberal arts training as well as psychological knowledge and skills. The major provides students with a detailed awareness of the field of psychology, including its historical background, paradigms, methods, research findings, and applications. The major addresses the general areas of developmental, personality, social, cognitive, and abnormal psychology. It fosters the development of verbal, quantitative, analytical, and technological skills that are useful for work in psychology and related fields.

The major requires twelve psychology courses (36 semester hours), including Introduction to Psychology (103), Child Psychology (201), Personality Psychology (303), Abnormal Psychology (230), Social Psychology (240), Cognitive Psychology (307), and six other elective psychology courses. A total of 120 credits are required for graduation. Students wishing to obtain a minor in Psychology must take Introduction to Psychology and any five additional psychology courses (18 semester hours).

Learning Outcomes

By completing the B.S. in Psychology program, students will: 1) have learned the pre-history and the history of Psychology including the evolution of its main issues, topic areas, methods and applications; 2) know the major perspectives in Psychology including Psychoanalytic theory, Behaviorism, Humanistic Psychology and Cognitive Behavioral Neuroscience; 3) understand the lifespan approach to human biological, cognitive and psychosocial development; 4) be able to provide examples of the major forms of psychological research including methodologies such as naturalistic observation, surveys, case studies and archival research, and the main features and techniques of psychological experimentation; 5) understand basic data organization, presentation and analysis including both inferential and descriptive statistics; 6) understand characteristics of psychological research including the limitations of correlation research, experimental biases, placebo effects and ethical issues regarding human subjects; 7) be able to critically evaluate the psychological research presented in the popular press; 8) be able to relate key psychological concepts and theories to their own personal lives; 9) understand how key psychological concepts and theories are applied in clinical, medical, educational, human services and corporate settings; and 10) understand connections between Psychology and such other disciplines as Philosophy, Biology, Sociology, Religion, and Human Services.

Summary of Requirements

MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<td>Child Psychology</td>
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<td>PSYC 230</td>
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FREE ELECTIVES

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GENERAL EDUCATION REQUIREMENTS

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Total Semester Hours **120**

Suggested Program

FIRST SEMESTER

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SECOND SEMESTER

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THIRD SEMESTER

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SIXTH SEMESTER

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SEVENTH SEMESTER

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EIGHTH SEMESTER

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Total Semester Hours **120**
Religion and Politics  Bachelor of Arts Degree

Director: Robert Riggs
Carlson Hall, Room 209
Telephone: (203) 576-4212
Fax: (203) 576-4967
E-mail: healy@bridgeport.edu

Curriculum and Program Requirements
The major in Religion and Politics prepares students to interpret the influence of religion in the various spheres of cultural life and in light of prevailing political climates. In particular, we study the role of religious values in fomenting conflict and promoting peace; in preparing for a life of service; and in giving depth and direction to culture.

The study of contemporary religions as a living phenomenon requires the concomitant study of social sciences and politics in order to deepen one's appreciation of the ways in which the religious roots of any society can impact upon both politics and culture. This becomes increasingly important in a world in which a successful career in business or diplomacy requires an understanding of the way that religion shapes culture, political thought and current conflicts. This program, one of the few of its kind in the world, provides students with a broad understanding of the major themes within religion while also allowing them to develop expertise in one of three cultural spheres: Western Religion and Culture; Islamic Religion and Culture or East Asian Religion and Culture. With this expertise, graduates of this program will be equipped to provide a deeper analysis of existing social structures and contribute to solutions in the worlds of international relations, media and more broadly political science.

Required courses from a common foundation prepare students to apply their knowledge in one of three concentrations. In the foundations sequence, students are acquainted with the belief systems of the world's major religions as well as political science and economics. This aspect of study involves learning religious studies methods, political science methodologies, principles of economics, cultivating the capacity for critical analysis, developing cultural sensitivity, and securing ability to communicate within an array of cultural and political idioms. In the concentrations sequence, students focus their learning on current problems and practically-oriented solutions. Three defined concentrations are possible: (1) East Asian Religion and Society; (2) Islamic Religion and Society; and (3) Judeo-Christian Thought and Society. With the consultation of an advisor, a self-planned option is also possible.

Integrative in nature, this study draws upon other disciplines. Students in Religion and Politics are encouraged to take courses in political science, history, literature, economics, sociology, and mass communication. Our students prepare to serve in non-governmental organizations, to seek professional degrees to further lives of service, and to enroll successfully in graduate schools of the highest caliber. Since the program is personally and intellectually demanding, its admissions policy is selective.

Learning Outcomes
Students in the B.A. in Religion and Politics will:
1) demonstrate a broad mastery of the liberal arts, including cross-disciplinary and interdisciplinary skills of interpretation, critical thinking skills, and oral and written communication skills;
2) demonstrate a mastery of religious studies methods;
3) demonstrate competency in the keys dimensions of political theory and political science;
4) demonstrate a high-level of competency in one's understanding of the history, beliefs, evolution, and practice of religion and governance in the Islamic cultural sphere, or in East Asian/Confucian sphere or in the West and demonstrate the competencies needed to compare developments and institutions in one's area of specialization with those in place in other major cultural spheres;
5) demonstrate a critical, non-prejudicial understanding of how the world's religions differentially impact social, political, and economic development;
6) demonstrate an understanding of key social institutions (and their impact upon developments in religion and politics);
7) demonstrate at least a 104 level of competency in a foreign language germane to the region, which the student has chosen as his or her area studies concentration;
8) demonstrate the ability to undertake independent work and produce research at a high quality for undergraduates.

Summary of Requirements
MAJOR PROGRAM REQUIREMENTS

I. FOUNDATIONS (33-36 HOURS)
A. INTRODUCTORY COURSES
WREL 102 Introduction to Eastern Religions** 3
WREL 103 Introduction to Western Religions** 3
PSCI 103 Intro to Political Science and Political Research Methods 3
PSCI 323 Classics in Political Theory 3
(**with the Chair's permission students may take a higher level course in lieu of either WREL 102 or WREL 103)

B. PROGRAM COURSES
Six 200-level “Program” courses (3 in WREL, 3 in PSCI or ECON)

Courses may be selected from
WREL 204 Hinduism 3
WREL 205 Buddhism 3
WREL 207 Judaism 3
WREL 208 Christianity 3
WREL 209 Islam 3
WREL 215 Unification Philosophy 3
WREL 229 Confucianism and Taoism 3
HEPD 201 Economics and Development or ECON 201 Macroeconomics 3
IPED 202 Intro to Political Economy or ECON 202 Microeconomics 3
PSCI 206 Political Economy of North-South Relations 3
PSCI 208 Introduction to International Law or PSCI 209 Introduction to United Nations Studies 3
PSCI 215 International Human Rights 3

C. THESIS
WREL 395 Senior Thesis 3-6*

*The thesis may be taken for six hours.
II. CONCENTRATIONS (12 CREDIT HOURS):

Students complete their major studies by taking twelve semester credit hours in one of the following concentrations.

### A. East Asian Religion and Society

**Note:** In addition to completing 12 semester hours from the regional topical courses that appear below, students in this concentration are required to complete four semesters French or Spanish or demonstrate competency at that level. Choose three Concentration/Region-Specific Courses, designated by (R), plus one non-(R) course.

- WREL 250 Taoism (R) 3
- WREL 204 Hinduism (R) 3
- WREL 205 Buddhism (R) 3
- WREL 229 Confucianism and Taoism (R) 3
- IPED 321 Political Economy of East Asia (R) 3
- IPED 329 Political Economy of China (R) 3
- MARTS 213 Martial Arts Studies/East Asian Theory (R) 3
- WREL 278 Religion, Peace and War 3
- WREL 305 Comparative Religious Ethics 3
- WREL 398 WREL Internship 3
- WREL 428 Sociopolitical Implications of Religion 3

Regional Concentration __________ 12 hrs

Total Major Requirements __________ 45-48 hrs

Free Electives ____________ 32-35 hrs

### B. Islamic Religion and Society

**Note:** In addition to completing 12 semester hours from the regional topical courses that appear below, students in this concentration are required to complete four semesters of Arabic language study or demonstrate competency at that level. Choose three Concentration/Region-Specific Courses, designated by (R), plus one non-(R) course.

- WREL 299 Christian, Muslim, Jewish Relations (R) 3
- WREL 305 Comparative Religious Ethics 3
- WREL 398 WREL Internship 3
- WREL 428 Sociopolitical Implications of Religion 3

Regional Concentration __________ 12 hrs

Total Major Requirements __________ 45-48 hrs

Free Electives ____________ 32-35 hrs

### III. GENERAL EDUCATION REQUIREMENTS

**ENGL C101** Composition and Rhetoric 3
**MATH C105** Intermediate Algebra 3
**FYS 101** First Year Seminar 3
**HUM** Humanities Core 6
**SOC** Social Sciences Core 6
**SCI** Natural Sciences Core 6
**FA** Fine Arts Core 3
**CAPS 390** Capstone Seminar 3
**LANG 101** Language Requirement 101 3
**LANG 102** Language Requirement 102 3
**LANG 103** Language Requirement 103 3
**CAPS C390** Capstone Seminar 3
**CAPS 209** U.N. Studies 3
**WREL** Concentration Course 3
**WREL 305** Comparative Religious Ethics 3
**WREL 398** WREL Internship 3
**WREL 428** Sociopolitical Implications of Religion 3

General Education Requirements __________ 40

Total B.A. in Religion and Politics Semester Hours __________ 120

### Suggested Program

**FIRST SEMESTER**

- **ENGL C101** Composition and Rhetoric 3
- **MATH C105** College Algebra 3
- **FYS 101** First Year Seminar 3
- **WREL 102** Intro. to Western Religions 3
- **PSCI 105** Intro to Political Science 3

**SECOND SEMESTER**

- **SCI** Natural Sciences Core 3
- **FA** Fine Arts Core 3
- **HIST 101** World History 3
- **WREL 102** Intro. to Eastern Religions 3
- **WREL** Concentration Course 3

**THIRD SEMESTER**

- **LANG 101** Language Requirement 101 3
- **HUM** Humanities Core 3
- **SOC** Social Science Core 3
- **WREL** 200-level Program Course 3
- **PHIL 323** Classics in Political Theory 3

**FOURTH SEMESTER**

- **LANG 102** Language Requirement 102 3
- **SOC** Social Science Core 3
- **MACOM 280** Intercultural Communication 3
- **WREL** 200-level Program Course 3
- **WREL** Concentration Course 3

**FIFTH SEMESTER**

- **LANG 103** Language Requirement 103 3
- **HUM** Humanities Core 3
- **WREL** 200-level Program Course 3
- **WREL** Concentration Course 3
- **WREL** Elective 3

**SIXTH SEMESTER**

- **LANG 104** Language Requirement 104 3
- **SCI** Natural Sciences Core 3
- **MACOM 209** U.N. Studies 3
- **WREL** Elective 3

**SEVENTH SEMESTER**

- **CAPS C390** Capstone Seminar 3
- **HUM** Humanities Core 3
- **WREL** Concentration Course 3
- **PSCI 323** Classics in Political Theory 3
- **WREL 395** Thesis 3

**EIGHTH SEMESTER**

- **WREL** Concentration Course 3
- **SCI** Natural Sciences Core 3
- **MACOM 207** World Regional Geography 3
- **WREL** Elective 3
- **WREL** Elective 3

Total Semester Hours __________ 120

*Students who do not meet the modern language requirement for the B.A. degree must use 3-12 semester hours free electives, depending on their level of competency, to satisfy this requirement.*
**Social Sciences Bachelor of Arts Degree**

**Program Head:** Beth Skott  
Carlson Hall, Room 231  
Telephone: (203) 576-4453  
Fax: (203) 576-4967  
E-mail: bskott@bridgeport.edu

**Curriculum and Program Requirements**

The Social Sciences major is designed to provide students with a liberal arts experience from the perspective of the social sciences. It is innovative both in its interdisciplinary approach to subject matter and the options it offers students to pursue their goals, whether in graduate school or government or the foreign service, in international agencies or business, in the law, teaching or community service. In addition to completing the major (i.e. meeting the requirements indicated in Groups I & II), students may choose to add (i) concentrations or minors in Criminal Justice, History, International Studies, Pre-Law, Political Science, Psychology, Sociology, or (ii) minors in career-related areas such as International Business, Finance, Human Services, and Education. Career opportunities traditionally available to liberal arts students are much enhanced by the flexibility the Social Science major permits. In its interdisciplinary approach, its emphasis on breadth as well as depth of learning, and its focus on practical skills, the Social Science major prepares students, for leadership roles in their communities and the world, and for self-fulfillment, and for success in their careers.

**Learning Outcomes**

Students in the B.A. in Social Sciences program will 1) possess a broad, liberal arts foundation and an understanding of how developments in social and intellectual history shape and affect human values and institutions; 2) demonstrate an understanding of basic social science methods; 3) demonstrate that they are conversant (i.e., possess a basic grasp) in the disciplines subsumed under the “social science” rubric at the University of Bridgeport, i.e., political science, economics, international studies, and sociology; 4) demonstrate a more advanced “working knowledge” of at least one social science discipline; 5) demonstrate they possess the cognitive competencies and study skills to succeed in advanced/graduate studies in any of the social sciences or in law or business; 6) demonstrate that they have the competencies needed to function competently in an entry-level social science-related career; and 7) demonstrate competency in written and oral communication.

**Summary of Requirements**

**PROGRAM REQUIREMENTS**

**GROUP I**  
Economics 6  
History 6  
Political Science 6  
Psychology 6  
Sociology 6  
**Total Major Semester Hours:** 30

**GROUP II**  
SOSC 395 Thesis or Senior Project 3  
SOSC 300 Methods Seminar 3  
**Total Major Semester Hours:** 6  
**Total Major Semester Hours:** 36

Any changes to these requirements require advisor approval.

**MINOR/CONCENTRATION IN THE SOCIAL SCIENCES:**

**MINOR IN SOCIOLOGY**  
SOC 101 Introduction to Sociology 3  
or SOC 102 Social Problems 3  
SOC 204 Marriage and Family 3  
SOSC 300 Research Methods 3  
Plus 3 electives with chair approval 9  
**Total Major Semester Hours:** 18

**MINOR IN CRIMINAL JUSTICE**  
SOC 118 Intro to Criminal Justice 3  
SOC 315 Criminology 3  
PSCI 233 Introduction to the American Legal System 3  
or PSCI 301 American Government 3  
or SOC 311 Juvenile Delinquency 3  
or SOC 270 Sociology of Deviance 3  
HUSV 315 Substance Abuse and Chemical Dependency 3  
PSCI 333 The Terror Network 3  
SOC 398 Internship in Criminal Justice 3  
**Total Major Semester Hours:** 18

**MINOR IN POLITICAL SCIENCE**  
PSCI 101 American Government 3  
or PSCI 105 Intro to Political Science and Political Research Methods 3  
PSCI 204 Government and Politics Abroad 3  
PSCI 207 World Politics 3  
PSCI 398 Law Internship 3  
or PSCI 209 Introduction to United Nations Studies 3  
SOSC 207 World Regional Geography 3  
PSCI 323 Classics in Political Theory 3  
or PSCI 324 Recent Political Theory 3  
**Total Major Semester Hours:** 18

**MINOR IN PSYCHOLOGY**  
Psyc 103 Introduction to Psychology 3  
Plus 5 additional Psychology course  
**Total Major Semester Hours:** 18

**CONCENTRATION IN PRE-LAW**  
PSCI 101 American Government 3  
PSCI 223 Introduction to the American Legal System 3  
SOC 315 Criminology 3  
PSCI 204 Government and Politics Abroad 3  
or SOC 231 Cultural Anthropology 3  
PSCI 398 Law Internship 3  
**Total Major Semester Hours:** 15

**CONCENTRATION IN HISTORY**  
Any 5 History Courses. HIST 207 American History 1 and HIST 208 American History 2 are strongly recommended.  
**Total Major Semester Hours:** 15

**CONCENTRATION IN INTERNATIONAL STUDIES**  
PSCI 209 UN Studies 3  
PSCI 207 World Politics 3  
SOSC 207 World Regional Geography 3  
PHIL 216 World Religions 3  
**Total Major Semester Hours:** 12

**FREE ELECTIVES* **  
**Total Major Semester Hours:** 20

**FOREIGN LANGUAGE**  
**Total Major Semester Hours:** 12

Competency in a foreign language is required of all Social Science majors. Students may either demonstrate competency or complete coursework through the 104 level any language offered at the University.
Social Sciences Bachelor of Arts Degree

GENERAL EDUCATION REQUIREMENTS

ENGL C101 Composition & Rhetoric 3
MATH C105 Intermediate Algebra 3
or MATH C108 Ideas of Mathematics 3
HUM Humanities Core 6
SCI Natural Sciences Core 6
SOSC Social Sciences Core 6
FA Fine Arts Core 3
FYS First year Studies 3
CAPS C390 Capstone Seminar 3
Liberal Arts Electives 7

Total Semester Hours 120

Suggested Program

FIRST SEMESTER
ENGL C101 Composition & Rhetoric 3
HUM Humanities Core 3
Foreign Language 101 3
MATH C105 Intermediate Algebra 3
History (Group I) 3

SECOND SEMESTER
HUM Humanities Core 3
Foreign Language 102 3
Psychology (Group I) 3
FA Fine Arts Core 3
Political Science (Group I) 3

THIRD SEMESTER
SOSC Social Sciences Core 3
Foreign Language 103 3
Sociology (Group I) 3
Economics (Group I) 3
Political Science (Group I) 3

FOURTH SEMESTER
SOSC Social Sciences Core 3
Foreign Language 104 3
Economics (Group I) 3
History (Group I) 3
Elective 3

FIFTH SEMESTER
SCI Natural Sciences Core 3
Sociology (Group I) 3
Psychology (Group I) 3
Concentration 1, or Elective 3
Liberal Arts Elective 3

SIXTH SEMESTER
SCI Natural Sciences Core 3
SOSC 300 Seminar in Methods 3
Concentration 2 & 3, or Electives 6
Liberal Arts Elective 3

SEVENTH SEMESTER
SOSC 395 Thesis 3
Concentration 4, or Elective 3
Free Elective 6
Liberal Arts Elective 3

EIGHTH SEMESTER
CAPS C390 Capstone Seminar 3
Free Electives 12

Total Semester Hours 120

*Students who do not meet the modern language requirement for the B.A. degree must use 3-12 semester hours free electives, depending on their level of competency, to satisfy this requirement.
Graduate Degree Programs
Biomedical Engineering  Master of Science

Director: Prabir K. Patra
Engineering Technology Building
Telephone (203) 576-4165
Fax: (203) 576-4750
Email: ppatra@.bridgeport.edu

Master of Science degree in Biomedical Engineering (BME) is intended to prepare individuals with a strong scientific and technical background for entry into Biomedical Engineering field at an advanced level and for further study leading to doctorate. Admission to the interdisciplinary BME program requires an undergraduate background that includes elementary coursework in biomedical engineering, biotechnology, biology, clinical science, pharmaceutical science and also includes any branch of science and engineering that permeates through the Fundamentals and advanced courses in engineering and the life sciences. The program offers innovative educational strategy that integrates biological sciences and engineering, and applies engineering tools, methods and practices to solve problems in biology and medicine. Graduates of our programs are expected to be highly-skilled biomedical engineers, and scientists who understand the ethical, social and economic implications of their work. The following fundamental course work has been identified to benefit the students most if they have them in their undergraduate degrees.

- Biomedical Engineering and Engineering
- Tissue Engineering
- Bioelectronics
- Tissue Culture
- Physiology

Applicants with superior academic credentials but lacking the required background can be admitted subject to their taking the necessary preparatory courses. Applicants are expected to have an average B or better in their undergraduate course work. Department offers the unique opportunity to its graduate students the education and research on how to integrate several engineering discipline principles in biomedical engineering.

The Department also offers, as an integral part of the Biomedical Engineering Masters Degree, the opportunity to specialize in several concentration areas.

1. Computer communication and networking in biomedical engineering
2. Biorobotics and automation
3. Biomedical Materials and Engineering
4. Bioelectronics
5. Biotechnology
6. Biomedical signal and Image Processing
7. Wireless and mobile communication pertaining to Biomedical Engineering
8. Bioinformatics
9. Tissue Engineering

In addition the department also offers the opportunity to acquire dual graduate degree with electrical engineering (dual MS degree in BME/ELEG). Candidates for the dual Masters Degree programs are typically required to complete a total of 49 credit hours to satisfy the requirement of two Masters Degrees. This implies 15 credit hours in addition to the 34 credits required for the MS degree in Biomedical Engineering.

Learning Outcomes

Consistent with the university’s vision, and with the missions of the School of Engineering and the Biomedical Engineering Program, the educational objectives for the Master of Science in Biomedical Engineering program were established as follows:

- Graduates of the BME program will have a sound integrated knowledge of science and engineering fundamentals with respect to the biomedical issues.
- Graduates will be proficient in the use of modern techniques, tools, procedures, and information sources which are useful in the definition and solution of problems in biomedical engineering.
- Graduates will have the ability to apply their scientific knowledge and engineering tools and techniques to design useful and economically feasible novel materials, devices, systems and processes which address problems relevant to the fields of biomedical engineering.
- Graduates will have the breadth and depth of knowledge, and a commitment to continued learning, necessary to understand the economic, social, ethical, and aesthetic aspects of their profession and their work, and to effectively communicate the results of their work.

Course Requirements

REQUIRED COURSES

A. A total of 34 semester hours is required. The core curriculum consists of 16 credits and includes:

BMEG 565  Biomedical Materials and Engineering (3 credits)
BMEG 412  Bioelectronics (3 credits)
BMEG 580  Tissue Engineering (3 credits)
BMEG 620  Team based research (6 credits)
ENGR 400  Seminar (1 credit)

B. The remaining 18 credits are elective courses.

The elective courses may be chosen from the list of BME concentration areas or chosen in consultation with the graduate advisor. The course descriptions are in the Graduate Studies Division section of the Catalog.

C. A team based research project of 6 credits is compulsory and the course number for that is BMEG 620 as mentioned under core courses.

CORE COURSES

BMEG 410  Biosensors
BMEG 412  Introduction to Bioelectronics
BMEG 440  Ergonomic Factors in Design
BMEG 451  Introduction to BioMEMS
BMEG 452  Biomedical Imaging
BMEG 503  Biometrics
BMEG 506  Transport Phenomena in Biological Systems
BMEG 507  Algorithm in Bioinformatics
BMEG 508  Biomechanics
BMEG 511  Design and development of Biomedical Instrument
BMEG 520  Physiology
BMEG 530  Instrumentation and Laboratory Experience
BMEG 531  Robotics in Bioengineering
BMEG 533  Communication Engineering in Biomedical Systems
BMEG 534  Electrochemistry in Biological Systems
BMEG 540  Advanced Cellular and Molecular Biology
BMEG 541  Foundations of Biotechnology and Biotechnology entrepreneurship
BMEG 546  Biosignal Processing
BMEG 560  Advanced Tissue Engineering
BMEG 569  Advanced Biomedical Materials and Engineering
BMEG 571  Ethical Issues in Biomedical Research
Business Administration Master of Business Administration Degree

Program Director: Samuel Lota
Mandeville Hall, Room 10
Telephone: (203) 576-4648
Fax: (203) 576-4388
Email: slota@bridgeport.edu

The UB MBA Value Proposition
The Master of Business Administration (MBA) is a valuable education for aspiring and practicing managers in any industry or field of endeavor. The graduate program provides early to mid-career professionals with the breadth and depth of theoretical and practical knowledge and skills that are necessary for effective leadership in an increasingly international and dynamic environment. Our innovative, interdisciplinary, and interactive MBA experience emphasizes leadership, teamwork, analytical thinking, competencies, and communication to give you a competitive edge for success.

Program Characteristics
Although students with work experience will find maximum benefit from the MBA; no previous work experience is required. The curriculum is designed to recognize and accommodate substantial diversity in preparation and experience as well as the different goals and career expectations of students. For this reason, some students may be required to complete preparatory coursework to successfully graduate from the 30-credit MBA program. Flexible course delivery (weekdays and evenings, weekends, summers, and online) enables students to proceed at their desired pace. Most students complete the MBA program in one or two years.

Academic Preparation
Students with undergraduate preparation in a non-business field may be required to complete up to 24 credits of preparatory/foundation coursework. International students with an undergraduate degree that was taught in a language other than English will be required to complete an additional preparatory course (3 credits) in business communication. Students with a strong academic record from an accredited business college may be able to waive equivalent preparatory foundation courses.

Eligibility for Waivers in the Preparatory (Foundation) Courses
For students with a regionally accredited undergraduate degree taught in English:
Students with one course in a specific discipline may have the course waived with the exception of accounting, which requires both managerial and financial accounting, and economics, which requires both micro- and macro- economics. All eligible courses require a grade of B- or better.

For all accepted students that do not meet the criteria stated above:
Students with two courses in a specific discipline may have the course waived with the exception of accounting, which requires two courses in both managerial and financial accounting, and economics, which requires two courses in both micro- and macro- economics. All eligible courses require a grade of B- or better.

Eligibility for Transfer Credits in the 10 upper-level Program Courses
For students with graduate coursework from a regionally accredited university:
No more than two (graduate) courses may be transferred into the MBA program.

Preparatory: Acquiring the Foundation for Success (up to 27 Credits)
This coursework provides the basic fundamentals across the business disciplines that serve as a necessary foundation for the MBA program.
- BUAD400 Business Communication (*required for international students)
- ACCT400 Accounting
- BLAW400 Business Law & Ethics
- ECON400 Economics
- FIN400 Financial Management
- ITKM400 Information Systems
- MGMT400 Management
- MKTG400 Marketing
- STAT400 Statistics

MBA Program Curriculum: (total of 30 credits)
- Three Components: Core, Concentration, and Capstone

Core Courses (15 credits)
In the five Core courses you will apply the theory from the Preparatory coursework through cases and real-world exercises.
- ACCT505 Managerial & Cost Accounting
- FIN505 Advanced Financial Management & Policy
- ITKM505 Information Systems & Knowledge Management
- MGMT505 Organizational Behavior
- MKTG505 Marketing & Research Methods

Concentration Courses (9 credits)
Because many careers require specialized and in-depth knowledge and skills in specific business areas, the program provides students with the opportunity to complete three courses of in-depth study in an area of their choice.
- Accounting
- Finance
- Human Resources
- International Business
- Management
- Marketing

Capstone Courses (6 credits)
The Capstone experience provides the final integration of student learning across the disciplines and the application of concepts learned to practical and competitive situations.
- Integration
  o BUCP597 Strategy & Policy
- Experiential
  o BUCP599 Internship or
  o BUCP598 Thesis or

Courses
- ECON400 Economics
- BLAW400 Business Law & Ethics
- BUAD400 Business Communication
- ACCT400 Accounting
- ITKM400 Information Systems
- MGMT400 Management
- MKTG400 Marketing
- STAT400 Statistics

Eligibility for Transfer Credits in the 10 upper-level Program Courses
For students with graduate coursework from a regionally accredited university:
No more than two (graduate) courses may be transferred into the MBA program.

Preparatory: Acquiring the Foundation for Success (up to 27 Credits)
This coursework provides the basic fundamentals across the business disciplines that serve as a necessary foundation for the MBA program.

Eligibility for Waivers in the Preparatory (Foundation) Courses
For students with a regionally accredited undergraduate degree taught in English:
Students with one course in a specific discipline may have the course waived with the exception of accounting, which requires both managerial and financial accounting, and economics, which requires both micro- and macro- economics. All eligible courses require a grade of B- or better.

For all accepted students that do not meet the criteria stated above:
Students with two courses in a specific discipline may have the course waived with the exception of accounting, which requires two courses in both managerial and financial accounting, and economics, which requires two courses in both micro- and macro- economics. All eligible courses require a grade of B- or better.

Eligibility for Transfer Credits in the 10 upper-level Program Courses
For students with graduate coursework from a regionally accredited university:
No more than two (graduate) courses may be transferred into the MBA program.
o MGMT582 Small Business & Entrepreneurship Course

**Progression/Sequence of Coursework**

**Preparatory coursework is the first step:**

Students should start their studies by completing all necessary Preparatory courses. Students required to take BUAD400 must complete the course in their first semester. Students should complete ACCT400 as soon as possible because it is a prerequisite for FIN400. Once all the Preparatory courses have been completed, students may enter the formal MBA program. Students may take a combination of Preparatory and Core courses during their transition into the Program, but students may not take a Preparatory and advanced class in the same discipline at the same time (e.g., ITKM400 and ITKM505).

Students should begin the formal MBA program by completing the five Core courses (in any order). The two Capstone courses should be taken in the final semester, or final two semesters, and may only be taken once all Core classes have been successfully completed (not concurrently).

**Multiple Concentrations**

Students may gain additional concentrations by successfully completing three courses in any of the six concentrations. Students may receive a double concentration in their original concentration by taking three additional advanced courses in the discipline.

**Fulltime Status**

Fulltime status requires three classes per semester (spring and fall). International students on an F1 visa are allowed to take fewer than 9 credits only once during their graduate program after their first semester, which is only permitted in their last semester.

**Grading Policy**

A grade of C or better is required for credit toward graduation in all prerequisite and program coursework. Students must maintain a semester GPA of 3.0 or better throughout their studies. Those students that earn a GPA below 3.0 will be placed on probation and must comply with the process stated below to successfully maintain proper status. A GPA of 3.0 or better is required to graduate from the MBA program.

**Requirements for Graduation**

To qualify for the award of the degree of Master of Business Administration, a student must fulfill the following minimum requirements:

1. Admitted to candidacy for the degree in the School of Business.
2. Satisfactorily complete all academic requirements with a cumulative grade point average grade of “B” (CGPA = 3.0) or better.
3. File an application for the award of the degree at the Registrar’s Office on or before the date published in the University Calendar.
4. Complete all academic requirements within five (5) years from the date of first registration, unless a petition for extension is granted. Extensions are granted only for compelling reasons.

**Learning Outcomes**

The first overall objective for the graduate program is for students to understand and apply concepts and skills across basic business disciplines that will enable them to be successful in a dynamic global environment. The second objective is for students to develop the competencies that facilitate student success in business. These objectives are reached by ensuring that students attain the following detailed learning outcomes.

- Demonstrate proficiency in the use of quantitative and qualitative managerial and analytical techniques to improve organizational effectiveness and decision-making.
- Become reflective scholars/practitioners who are able to draw upon and critique business theories, to apply them effectively in the workplace, and to develop their own personal philosophy utilizing high ethical standards.
- Become cognizant at a strategic level of the management disciplines and aware of how these functions, along with their own specific expertise, relate to the overall success of an enterprise.

**Assessment**

The knowledge and skills gained in the program are evaluated with exams and the application of theories to applied situations presented in cases and projects. Students and the program as a whole will be evaluated and benchmarked with the use of standardized program tests across the basic business disciplines. Students will work in teams on various projects and cases across their business courses. Students will be evaluated by other students and by their professors regarding multiple competencies and will receive cumulative evaluations across courses.

**M.B.A./Engineering Partnership**

In an arrangement, with the School of Engineering, approved Engineering courses offered by the College of Engineering are available for students in the M.B.A. degree. Specific courses for this study are selected and approved by the student’s faculty advisor and the Director of the M.B.A. program.
**Computer Engineering** Master of Science Degree

Chair: Ausif Mahmood  
Engineering Technology Building  
Telephone: (203) 576-4145  
Fax: (203)576-4765  
Email: mahmood@bridgeport.edu

The Master’s Degree in Computer Engineering is a course of study intended to prepare individuals whose undergraduate background is in computer or electrical engineering for advanced professional work in the field and for further study leading to the doctorate. Emphasis is placed on current state-of-the-art applications including parallel computing, image processing, VLSI design, sensing, robotics, mobile computing, automation and the like. Admission to the program requires an undergraduate degree in engineering, and includes the following fundamental coursework:

- Programming Languages and Techniques
- Data Structures
- Digital Design
- Digital Design Lab
- Computer Organization
- Microprocessors
- Probability and Statistics

Applicants with superior academic credentials but lacking the required background can be admitted subject to their taking the necessary preparatory courses. Applicants are expected to have an average of B or better in their undergraduate coursework.

The Department also offers, as an integral part of the Computer Engineering Masters Degree, the opportunity to specialize in several concentration areas.

Computer Engineering Concentration areas:

1. Advanced Applications and Systems Programming
2. Bio-Medical Engineering
3. CAD/CAM
4. Computer and Information Security
5. Computer Communications and Networking
6. E-Commerce
7. Microelectronics and Computer Architecture
8. Modern Data Base Systems
9. Robotics and Automation
10. Signal and Image Processing
11. Software Engineering
12. Very Large Scale Integration (VLSI)
13. Wireless and Mobile Communications

Please refer to the Graduate Studies Division Catalog pages for course details of the concentration areas.

In addition, the department also offers the opportunity to acquire dual graduate degrees along with the M.S. degree in Computer Engineering. Candidates for these dual Masters degree programs are typically required to complete a total of 48 credit hours to satisfy the requirements of two Masters degrees. This implies 15 credit hours in addition to the 33 hours required for the M.S. degree in Computer Engineering.

Please refer to the Graduate Studies Division catalogue pages for detailed information on Dual Graduate Degree programs.

Furthermore, customized study plans to allow receiving the Computer Engineering M.S. degree while pursuing either the Ph.D. degree in Computer Science and Engineering or the Ed.D. degree in Education are available. Doctoral students in these two programs should consult their respective doctoral advisors to work on their individualized plans. Further details on the dual M.S. in Computer Engineering degree programs are available in the catalog section on the Graduate Studies Division.

**Program Objectives**

Our Computer Science Students will:

- Apply foundational scientific concepts and sound engineering principles efficiently and effectively.
- Be well-educated, highly valued, and successful engineers and scientists.
- Significantly contribute to technical interdisciplinary team projects.
- Professionally communicate technical solutions and results.
- Continue to pursue lifelong multidisciplinary learning as professional engineers and scientists.

**Learning Outcomes**

Our Computer Engineering Students will:

1. Demonstrate an in depth and comprehensive understanding of Computer Engineering.
2. Have an enhanced ability to learn, on their own, technical details for which they are responsible.
3. Have an enhanced ability to apply the knowledge learned to solve technical problems that arise in research they conduct or supervise.
4. Have an enhanced ability to study an issue, identify and evaluate alternative actions, propose an optimal course of action.
5. Have an enhanced ability to prepare technical point papers, brief their seniors, and defend their conclusions.

**Course Requirements**

**Required courses**

A. A total of 34 semester hours is required. The core curriculum consists of 15 credits and includes:

- CPSC 501 Object Oriented Programming using C++
- CPEG 410 Introduction to Computer Architecture
- CPEG 572 Data and Computer Communication
- CPEG 6400 Introduction to VLSI Design
- CPSC 5447 Logic Synthesis Using FPGAs
- ELEG 443 Applied Digital Signal Processing

B. The remaining 18 credits are elective courses.

The elective courses may be chosen from the list of Computer Engineering concentration areas or chosen in consultation with the graduate advisor. Also, students are required to take ENGR 400 (Engineering Colloquium).

The course requirements of the concentration areas are described in the Graduate Studies Division section of the catalog.

C. Students must do a Masters Project (3 credit hours) or Thesis (6 credit hours) as part of the 18 elective credit hours.

The concentration areas can be applied to satisfy the requirements of second Masters degree programs of study.
Computer Science Master of Science Degree

Chair: Ausif Mahmood
Engineering Technology Building
Telephone: (203) 576-4145
Fax: (203) 576-4765
Email: mahmood@bridgeport.edu

The Master’s Degree in Computer Science is intended to prepare individuals with a strong mathematical, scientific, or technical background for entry into the computer science field at an advanced level and for further study leading to the doctorate. Admission to the program requires an undergraduate background that includes elementary physics, calculus sequence, linear algebra, and the following fundamental coursework in computer science:

- Programming Languages and Technique
- Data Structures
- Digital Design
- Discrete Structures
- Computer Organization
- Probability and Statistics

Applicants with superior academic credentials but lacking the required background can be admitted subject to their taking the necessary preparatory courses. Applicants are expected to have an average of B or better in their undergraduate coursework.

The Department also offers, as an integral part of the Computer Science Masters Degree, the opportunity to specialize in several concentration areas.

Computer Science Concentration Areas:
1. Advanced Applications and Systems Programming
2. Bio-Medical Engineering
3. CAD/CAM
4. Computer and Information Security
5. Computer Communications and Networking
6. E-Commerce
7. Microelectronics and Computer Architecture
8. Modern Data Base Systems
9. Robotics and Automation
10. Signal and Image Processing
11. Software Engineering
12. Very Large Scale Integration (VLSI)
13. Wireless and Mobile Communications

Please refer to the Graduate Studies Division Catalog pages for course details of the concentration areas.

In addition, the department also offers the opportunity to acquire dual graduate degrees along with the M.S. degree in Computer Science. Candidates for these dual Masters degree programs are typically required to complete a total of 48 credit hours to satisfy the requirements of two Masters degrees. This implies 15 credit hours in addition to the 33 hours required for the M.S. degree in Computer Science.

Please refer to the Graduate Studies Division catalogue pages for detailed information on Dual Graduate Degree programs.

Furthermore, customized study plans to allow receiving the Computer Science M.S. degree while pursuing either the Ph.D. degree in Computer Science and Engineering or the Ed.D. degree in Education are available. Doctoral students in these two programs should consult their respective doctoral advisors to work on their individualized plans. Further details on the dual M.S. in Computer Science degree programs are available in the catalog section on the Graduate Studies Division.

Course Requirements

**REQUIRED COURSES**

**A. A TOTAL OF 33 SEMESTER HOURS IS REQUIRED. THE CORE CURRICULUM CONSISTS OF 15 CREDITS AND INCLUDES:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC 400</td>
<td>Object Oriented Programming</td>
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<tr>
<td></td>
<td>Using C++</td>
</tr>
<tr>
<td>CPSC 450</td>
<td>Data Base Design</td>
</tr>
<tr>
<td>CPSC 502</td>
<td>Analysis of Algorithms</td>
</tr>
<tr>
<td>CPSC 503</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CPEG 471</td>
<td>Data and Computer Communication</td>
</tr>
</tbody>
</table>

**B. THE REMAINING 18 CREDITS ARE ELECTIVE COURSES.**

The elective courses may be chosen from the list of Computer Science concentration areas or chosen in consultation with the graduate advisor.

The course requirements of the concentration areas are described in the Graduate Studies Division section of the catalog.

**C. STUDENTS MUST DO A MASTERS PROJECT (3 CREDIT HOURS) OR THESIS (6 CREDIT HOURS) AS PART OF THE 18 ELECTIVE CREDITS HOURS.**

Since July 2004, the Department of Computer Science and Engineering has been offering the full M.S. degree program in Computer Science through distance learning. For more information please contact the department or visit: http://www.bridgeport.edu/uh/dlearning/

The concentration areas can be applied to satisfy the requirements of dual Masters degree programs of study.

**Program Objectives**

Our Computer Science Students will:
- Apply foundational scientific concepts and sound engineering principles efficiently and effectively.
- Be well-educated, highly valued, and successful engineers and scientists.
- Significantly contribute to technical interdisciplinary team projects.
- Professionally communicate technical solutions and results.
- Continue to pursue lifelong multidisciplinary learning as professional engineers and scientists.

**Learning Outcomes**

Our Computer Engineering Students will:
1. Demonstrate an in depth and comprehensive understanding of Computer Science.
Counseling  Master of Science Degree

Director: Sara Connolly
Charles A. Dana Hall, Room 163
Telephone: (203) 576-4183
Fax: (203) 576-4051
Email: sconnoll@bridgeport.edu

Secretary (information and application material): Angela DiMario
Charles A. Dana Hall
Telephone: (203) 576-4271
Fax: (203) 576-4051
Email: adimario@bridgeport.edu

Faculty: A. Buller, S. Connolly, L. Leedom

Admissions Requirements

The University has a rolling admissions policy. To be fully admitted applicants must have a bachelor's degree from an accredited college or university with a minimum GPA of 2.75. Applicants are expected to have at least 9 credits of psychology coursework (graduate or undergraduate) such as Personality Theories, Abnormal Psychology, or Clinical Psychology. They must also successfully complete the supplemental application portfolio which includes personal references, a writing assignment, and an official transcript.

PROGRAM PREREQUISITES

Bachelors degree, or its equivalent, from an accredited university or recognized international institution

- Undergraduate cumulative grade point average of 2.75 or higher
- Nine credits in undergraduate psychology coursework with a grade of B or higher; three of the nine credits may be in an area closely related to psychology
- It is recommended that clinical mental health counseling applicants have three undergraduate credits in either abnormal psychology or psychopathology

REQUIRED MATERIALS

- University of Bridgeport graduate application
- $50 application fee (non-refundable)
- Checks or money orders should be made payable to the University of Bridgeport
- Official transcripts from every school attended
- International transcripts must include an official course-by-course evaluation of all academic work from an accredited academic evaluating service
- Two recommendation letters
  - Letters must be signed and come from employers, professors or professional associates
  - Clinical mental health counseling applicants must obtain at least one recommendation letter from someone who can attest to field experience

PERSONAL STATEMENT

In 250-500 words, detail your interest in the counseling program, your relevant academic and personal experience, and describe your professional plans
  - Resume
  - Interview

Once all required materials are received, you will be contacted to meet with the review committee

DEADLINES

Completed application and all supporting documents must be received by:
- May 1 for priority consideration, August 1 (final deadline) for the fall semester
- October 1 for priority consideration, December 15 (final deadline) for the spring semester

It is highly recommended that you meet our priority deadline as program space is limited. If admitted, priority candidates receive preferred course registration.

In addition to the general admissions requirements listed above, admission decisions for the Clinical Mental Health Counseling concentration will give careful consideration to indicators of candidate life experience and maturity (e.g., successful work experience in a human service field). A personal interview is also required.

Applicants who hold a bachelor's degree from an accredited college or university but do not meet one or more of the above criteria may be admitted provisionally. Those without the recommended background in Psychology will be required to take additional psychology-related coursework as part of their degree program. Those admitted on provisional status may be fully admitted once they have completed 12 credits of coursework with a grade point average of 3.0 or higher.

Although students may enter the program in any term, it is advised to begin in the fall. Students who begin in the spring or summer may have limited course options.

Programs

The Division of Counseling offers a Master of Science degree in Counseling with concentrations in Clinical Mental Health Counseling and College Student Personnel. In addition to the master's degree, a Certificate of Advanced Study (CAS) is offered for those who wish to take specialized courses beyond the masters and/or complete licensure requirements. Students who apply to one program and wish to transfer to another must apply to change programs.

Upon entry into a program, students plan an individualized plan of studies with their advisor in which graduate transfer credit of no more than six credits may be included. While students can take courses at their own pace, all of the counseling degree programs require a minimum of two years to complete. There is a set sequence of courses for each concentration and some courses have prerequisites. Courses are offered once a year, typically in the evening or on weekends. In addition, there is a seven year time limit for completion of all degree requirements.

Typically students take two or three courses each term. Many students have full or part-time employment. Although it is possible to take all course work in the late afternoon, evening, or on weekends, some additional time during the day may be required to meet course expectations. This is especially true for internship placement.

Professional Licensure

Students interested in licensure should consult the state in which they wish to practice for specific requirements. The State of Connecticut requires 60 credit masters degree. Specific areas of coursework are also required. In addition, candidates for licensure must complete supervised clinical experiences and obtain a qualifying score on a standardized examination. Students who wish to pursue licensure should select the Clinical Mental Health Counseling concentration.

Certificate of Advanced Study

For individuals who hold a master's degree in Counseling or a closely related field but lack
Counseling Master of Science Degree

one or more of the requirements for licensure as a professional counselor, the Division of Counseling and Human Resources offers a specialized program of study leading to a Certificate of Advanced Study (CAS) in Clinical Mental Health Counseling. The requirements of this program are individualized to the needs and goals of each student and consist of 30 credits.

Practicum
The practicum is designed to allow students to develop their counseling skills in a closely supervised setting. The course instructor, student’s advisor, and site supervisor determine appropriate practicum activities. Activities could include observing/shadowing, attending staff meetings, tutoring, advising, interviewing professional staff members, studying materials and procedure manuals, and other support functions.

Internship
Following the practicum and pre requisite courses, students will pursue an internship. The goal of the internship is to further develop and refine the skills established during practicum. You are eligible for the internship component of your program after completing the required coursework and approval from faculty. The internship is the heart of the master's degree training program in Counseling at the University of Bridgeport (UB). It provides a venue within which students receive the guidance necessary for development as an entry-level counselor. Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. The internship operationalizes this training and, in the person of the clinical supervisor, personifies the profession with which the intern ideally identifies. Therefore, careful consideration should be given to the type of internship site that you choose and you should discuss this closely with your advisor. Successful internship training can only occur when program faculty and site supervisors form a close collaborative relationship with the mission of providing quality training and the development of the intern as a whole person. Internships are not guaranteed and approval to attend internship is dependent upon students’ performance both interpersonally and academically. Internships must be completed over two semesters, typically over the course of a full academic year, starting in the fall and ending in the spring.

Learning Outcomes
Graduates in Clinical Mental Health Counseling will:

- Evidence understanding of the role of a counselor; including ethical practice, counselor behaviors and professional associations
  \textit{As measured by:} Internship, Participation in professional associations, C570, C568
- Demonstrate knowledge, awareness and skills requisite for counseling persons from different cultural contexts and of different levels of ability
  \textit{As measured by:} C512, C545, Internship, CPCE
- Apply counseling theories, techniques and intervention to practice; in individual and group settings
  \textit{As measured by:} C505, C570, Internship, C512, C540
- Demonstrate knowledge of the ethical use of appraisal instruments
  \textit{As measured by:} C582, CPCE
- Demonstrate an ability to diagnose mental health status
  \textit{As measured by:} C515, Internship
- Demonstrate an ability to review counseling research and integrate its contribution to specific areas of knowledge
  \textit{As measured by:} C535, CPCE
- Demonstrate knowledge of, and skills in Cognitive Behavioral Therapy
  \textit{As measured by:} C505, C570, Internship

Graduates in College Student Personnel will:

- Demonstrate knowledge, awareness and skills requisite for working with students from different cultural contexts and of different levels of ability
  \textit{As measured by:} C545, Internship
- Demonstrate an ability to review field related research and integrate its contribution to specific areas of knowledge
  \textit{As measured by:} C536
- Apply knowledge of counseling theories and developmental theory as well as best practices in Student Affairs and student
  \textit{As measured by:} Internship, C512, C555, Cumulative Exam
- Evidence understanding of role of the Student Affairs professional; including ethical behavior and professional affiliation
  \textit{As measured by:} Internship, Professional Associations
- Demonstrated an ability to assess needs of different groups within a particular college environment, develop appropriate program, implement and assess program
  \textit{As measured by:} C527, Cumulative Exam
- Demonstrate knowledge of current issues in higher education and the purpose and function of student affairs practice in higher education
  \textit{As measured by:} C503, C520, Cumulative Exam
- Demonstrate an ability to integrate the knowledge and awareness gained to individual courses
  \textit{As measured by:} Cumulative Exam

Graduates in Human Services will:

- Evidence understanding of the role of a counseling professional; including ethical practice, behaviors and professional associations
  \textit{As measured by:} Internship, C568, professional associations
- Demonstrate knowledge, awareness and skills requisite for working with persons from different cultural contexts and of different levels of ability in a counseling setting
  \textit{As measured by:} C510, C545, Internship
- Apply counseling theories, techniques and intervention to practice; in individual and group settings
  \textit{As measured by:} C505, C540, Internship
- Demonstrate knowledge of the historical influences within human services and the management within the human service environment
  \textit{As measured by:} C532, C625, C620
- Demonstrate an ability to review counseling research and integrate its contribution to specific areas of knowledge
  \textit{As measured by:} C535, Masters Project
- Demonstrate an ability to integrate the knowledge and awareness gained to individual courses
  \textit{As measured by:} Internship, Masters Project
Summary of Requirements

Masters students in the Division of Counseling are required to complete the following courses:

CONCENTRATION IN CLINICAL MENTAL HEALTH COUNSELING (CMHC)

The concentration in Clinical Mental Health Counseling is designed to prepare students for work as mental health counselors and requires advanced coursework in clinical skills, psychopathology, appraisal procedures, addiction, and psychotherapeutic techniques.

Credit Hours

Coun 505 Helping Relationships 4
Coun 568 Counselor as Professional 3
Coun 545 Social & Cultural Foundations 3
Coun 540 Group Process Application & Theory 4
Coun 610 Career & Lifestyle Development 3
Coun 512 Theories of Counseling 3
Coun 570 Strategies & Techniques of Counseling 4
Coun 582 Appraisal Processes for Counselors 3
Coun 595 Addiction & Treatment 3
Coun 535 Research Methods 3
Coun 552 Human Growth & Development 3
Coun 600 Clinical Mental Health Counseling Internship 1 4
Coun 605 Clinical Mental Health Counseling Internship 2 4
Coun 585 Trauma & Crisis Intervention 3
Coun 587 Psychopharmacology 3
Coun 502 Orientation 1
Coun 515 Clinical Skills for Counselors 3
Elective (Practicum) 3
Elective 3
Total 60

CONCENTRATION IN COLLEGE STUDENT PERSONNEL (CSP)

The concentration in College Student Personnel is designed to prepare students for counseling careers in higher education. It requires advanced coursework in career and lifestyle development, organization and administration of higher education, and college student development.

Credit Hours

COUN 503 Orientation in Student Affairs 1
COUN 505 Helping Relationships 4
COUN 512 Counseling Theories 3
COUN 520 Introduction to Student Affairs 3
COUN 527 Student Affairs Administration 3
COUN 536 Assessment in Student Affairs 3
COUN 540 Group Process 4
COUN 545 Social & Cultural Foundations 3
COUN 552 Human Growth and Development 3
COUN 555 Student Development Theory 3
COUN 562 Today's College Student 3
COUN 601 CSP Internship 1 3
COUN 606 CSP Internship 2 3
COUN 610 Career and Lifestyle 3
COUN 615 Ethical & Legal Issues in Higher Ed 3
Total 45
Design Management  Master of Professional Studies Degree

Chair: Alex W. White
Arnold Bernhard Center
Telephone: (203) 576-4036
Fax: (203) 576-4042
alwhite@bridgeport.edu

Design is quickly moving to the center of many organizations’ core strategy. Such companies achieve a significant competitive advantage through the implementation of effective design thinking. New demands are being placed on designers, and new skills are needed to fully integrate into the business landscape of the 21st century.

Design Management is more than the study of business and design; it is a fundamental belief within an organization that design can improve productivity, create more innovative products, lower operational costs and create a more sustainable work environment. The field of Design Management encompasses every discipline of design, including graphic and communication; industrial design and engineering; architecture and interior; and fashion and textile design.

The MPS Design Management program at Shintaro Akatsu School of Design (SASD) emphasizes the following five core aspects of design and business:

**LEADERSHIP**
Design Managers lead teams of designers, which requires a specific set of skills to develop the leadership style that’s right for the individual and the team. Additionally, Design Managers are often asked to champion ideas throughout an organization. Both of these types of leadership skills are emphasized in this program, resulting in graduates with strong leadership skills.

**STRATEGY**
Design and strategy are deeply connected. Design Managers who graduate from this program will be able to develop concepts that support and promote the core strategy of their organization, and articulate that strategy in a clear and persuasive way.

**MARKETING**
Understanding the principles of marketing is critical to effective Design Management. Promotion, product design, package design, and the design of the physical plant often all fall under the responsibility of the Design Manager. Upon completing the courses in this program, students will have working knowledge of these issues.

**OPERATIONS**
Through interactive simulations and case study research, Design Management students gain a deep understanding of the operational procedures within an organization. The courses in this program help students identify, understand, and influence efficient operational practices.

**FINANCE**
Students will be able to read and comprehend financial statements such as annual reports, cash flow statements, and balance sheets to more effectively integrate design proposals with business functions within their organization.

**LEGAL**
Design Managers are often faced with the protection of intellectual property. The MPS DM program gives students a working knowledge for dealing with design issues of trademarks, copyrights, and patents.

These core skills will give Design Managers who graduate from SASD the tools they need to solve the most pressing design issues of our time, from matters of sustainability to social responsibility and profitability.

**Admissions Requirements**
Applicants must possess an undergraduate degree in graphic, industrial, interior, or fashion design, architecture or related design or business fields from an accredited college or university with at least a 2.7/4.0 GPA.

Applicants should have a well-rounded education, as gained through general education courses. Admissions will consider writing, speaking, and analytical skills, as demonstrated through college-level coursework or professional experience, although professional experience is not a prerequisite for admission.

Applicants must submit a personal essay and two letters of recommendation. An interview is not required, but is recommended.

A portfolio is not required, but is an advantage in the admissions process. Evidence of internship, volunteer, or prior employment in design management, marketing, business or a studio settings will be viewed favorably.

Please visit Graduate Admissions for detailed information.

http://www.bridgeport.edu/admissions.

**International Admissions**
http://www.bridgeport.edu/admissions/international/applying/requirements/graduate.aspx

**Curriculum**

**First Semester**
- **DSNMG 400** Collaborative Design Studio I 2
- **DSNMG 410** Design Management I 3
- **MKTG 600** Marketing Concepts (Marketing) 3
- **MGMT 600** Leadership & Management (Management) 3

**Second Semester**
- **DSNMG 401** Collaborative Design Studio II 2
- **DSNMG 410** Design Management II 3
- **BLAW 600** Legal Environment of Business and Ethics (Law) 3
- **DSNMG 599** Special Projects 2
- **DSNMG 598** Internship or Coop (Elective*) 1

**Third Semester**
- **DSNMG 500** Collaborative Design Studio III 2
- **DSNMG 511** Design Management III 3
- **ACCT 600** Financial Accounting (Finance) 3
- **ITKM 600** Information Systems & Technology 3

**Fourth Semester**
- **DSNMG 501** Collaborative Design Studio IV 2
- **DSNMG 511** Thesis/Design Management IV 3
- **MGMT 652** Small Business & Entrepreneurship (Strategy) 3

**or**
- **DSNMG 580X** New Product Commercialization 3
- **DSNMG 598** Internship or Coop (Elective*) 1

*Alternate coursework is an additional graduate-level business course and requires permission of the academic advisor.

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East Asian and Pacific Rim Studies  Master of Arts Degree

Dean: Dr. Thomas J. Ward
Carlson Hall 235
Telephone: (203) 576-4966
Fax: (203) 576-4967
Email: ubcpia@bridgeport.edu

The Masters of Arts in East Asian and Pacific Rim Studies is designed for those anticipating a future career as a civil servant, a business professional or those planning to teach and research topics related to the Pacific Rim. The Pacific Rim includes the United States, China, Canada, Russia, Japan, the Koreas, Chile, the ASEAN countries and all other members of the Asia Pacific Economic Cooperation (APEC). The curriculum is designed to equip students with the necessary foundations in language, religion, political economy, culture and history that would allow students to have the bases needed to function effectively as a professional in the Pacific Rim. The program is interdisciplinary in nature. It requires a working knowledge of at least English and one East Asian language or Russian. The program emphasizes the development of skills in social science research methods, in political economy and an understanding of the religions, cultures and the major historical developments of the region. In addition to the core courses, students in the program will also develop expertise in one of four areas: Business, Global Communications, Diplomacy or Development.

Learning Objectives
The program has the following learning Objectives:

- Introducing and comparing extant models of socioeconomic development with a special focus on those development models that have been used successfully in the Pacific Rim;
- Introducing the Sociopolitical Implications of the religions that are common in the Pacific region;
- Introducing and comparing models of trade;
- Equipping students with the quantitative and qualitative research skills needed to undertake effective planning, analysis and implementation of projects;
- Identifying and fostering an appreciation of the prerequisites for successful governance and amiable trade practices within developing countries;
- Development of skills in negotiation and in conflict resolution;
- Development of practical skills in problem solving and in project management through an internship in the Pacific Rim.
- US students will be expected to do their internship in Northeast or Southeast Asia and students from Asia will be encouraged to pursue an internship in Latin America or in a country other than their own in East Asia;
- Development of at least a level 2 competency of an East Asian language (normally Chinese (Mandarin), Korean or Japanese or Russian.

The Masters Degree offers four potential tracks and students should choose from one of the following:

CONFLICT ANALYSIS AND RESOLUTION TRACK (CULTURE, PEACE AND DEVELOPMENT)
For those interested in conflict management.

INTERNATIONAL POLITICAL ECONOMY AND DEVELOPMENT TRACK
For those interested in development and its challenges.

GLOBAL MANAGEMENT TRACK
For those interested in working in the commercial domain.

GLOBAL COMMUNICATION
For those interested in working in the field of public diplomacy or media relations.

Course of Study
Sample Curriculum Sequence:
Curriculum: East Asian and Pacific Rim Studies Program requires a minimum of 36 credit hours

SEMESTER I
(For All Tracks)

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GLDP/EAPRS 501 Research Methods</td>
<td>3</td>
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<tr>
<td>GLDP/EAPRS 522 Conflict Analysis and Resolution</td>
<td>3</td>
</tr>
<tr>
<td>GLDP/EAPRS 528 Sociopolitical Implications of the World’s Religions</td>
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SEMESTER II

| Concentration A: Negotiations and Diplomacy
Choose One |
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<td>GMCS 557</td>
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<td>EAPRS 563</td>
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<td>GLDP 580</td>
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| One Course in one Concentration B, C or D | 3 |

| Concentration B: International Political Economy and Development
Choose One |
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<td>GMCS 560</td>
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Or One Course in Concentration A, C or D if the student has not yet completed this requirement.

| Concentration C: Global Management Track
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<tr>
<td>MGMT 530</td>
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<td>MGMT 539</td>
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<td>MKTG 560</td>
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| One Course in Concentration A, B or D if the student has not yet completed this requirement | 3 |

| Concentration D: Global Communication Track
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<td>GMCS 537</td>
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<td>GMCS 543</td>
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<td>GMCS 577</td>
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| One Course in Concentration A, B or C if not yet completed | 3 |

| Concentration A: Negotiations and Diplomacy
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| One Course in one Concentration B, C or D | 3 |

SEMESTER III

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<th>Course</th>
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<tbody>
<tr>
<td>EAPRS 591</td>
<td>Internship</td>
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SEMESTER IV

| Concentration A: Negotiations and Diplomacy
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<td>GMCS 557</td>
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<td>EAPRS 563</td>
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<td>GLDP 580</td>
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</tbody>
</table>

| One Course in one Concentration B, C or D | 3 |
East Asian and Pacific Rim Studies *Master of Arts Degree*

**Concentration B: International Political Economy and Development**
Choose Three
- GLDP 560 Sustainable Development 3
- EAPRS 525 Models of Good Governance in the Asia-Pacific Region 3
- EAPRS 563 Business and Diplomacy—East Asia vs. the West 3
One Course in Concentration A, C or D if student has not yet completed this requirement 3

**Concentration C: Global Management Track**
Choose Three
- MGMT 530 Leadership, Teams & Managing Change 3
- MGMT 539 International Issues 3
- MKTG 560 Global Market Management* 3
One Course in Concentration A, B or D if the student has not yet completed this requirement 3

**Concentration D: Global Communication Track**
Choose Three
- EAPRS 537 Global Communication and Mass Media 3
- GMCS 543 Communication and National Development 3
- GMCS 557 Political Communication and Governance 3
One Course in Concentration A, B or C if not yet completed 3

**SEMESTER V**
- EAPRS 598 Tutorial 3
- EAPRS 599 Thesis 3

**ENGLISH LANGUAGE REQUIREMENT**
For applicants whose native language is not English, a minimum score of 213 (computer) or 550 (paper) on the TOEFL (Test of English as a Foreign Language) is required. Exception to these requirements will be considered on a case-by-case basis in consultation with the Director of the University’s English Language Institute and following completion of an oral and written English exam that is administered by the English Language Institute. Students with demonstrated difficulty communicating in English may be required to take an advanced ELI course even if they have earned between 213/550 and 250/600 TOEFL scores.

**MINIMUM GRADE POINT AVERAGE REQUIREMENT**
Candidates for the Masters of Arts in East Asian and Pacific Rim Studies are required to maintain a minimum semester grade point average of 3.0 to remain in good academic standing. The Master of Arts in East Asian and Pacific Rim Studies may only be conferred upon a student who has the minimum required average of a 3.0 at the conclusion of the student’s studies. To receive credit for the completion of one of the tracks, a minimum of a “B” must be received in each course within the concentration. Students failing to maintain minimum academic standards will be placed on academic probation at the end of the first semester in which they do not maintain a semester or overall GPA of at least 3.0 or earn a C- or lower grade in any class. If the student fails to raise his overall GPA above a 3.0 by the end of the semester following being placed on academic probation, fails again to earn at least a 3.0 semester GPA or again earns a C- or lower grade in any class, she or he will be separated from the EAPRS program.

A student separated from the program may apply for readmission to the program following a minimum of one semester of not participating in the program. The student may only do this once.
Education  Master of Science in Elementary or Secondary Degrees, Sixth Year Certificates of Advanced Studies, and Certification Areas

Dean: Allen P. Cook  
Carlson Hall, Room 109  
Telephone: (203) 576-4192  
Fax: (203) 576-4200  
Email: acook@bridgeport.edu

This degree program provides advanced study in content and content pedagogy for persons interested in careers in education, and/or certification in the State of Connecticut to teach on the elementary, or secondary levels.

Intern Program

Intern Director: Patricia Philips-Gorkowski  
Carlson Hall, Room 108  
Telephone: (203) 576-4219  
E-mail: paphilli@bridgeport.edu

The Graduate School of Education provides an internship option for the following students: (1) those seeking a Master's degree or 6th Year Certificate of Advanced Studies and teacher certification; (2) those already certified and seeking a Master's degree or Sixth Year Certificate of Advanced Studies, or (3) those seeking a Master's degree only for work in nonpublic American schools, schools in another country, or in other educational settings. This internship is designed to integrate field experience with graduate course work. During the internship students earn thirty-three tuition remission credits.

Master's Degree Program

Master of Science in Elementary and Secondary Education 
(Certification Track Programs)

This program provides educators with the opportunities for in-depth study of subject content, techniques and materials appropriate to contemporary classrooms within a structured framework of field concentration and professional development. Emphasis is placed on selected areas of concentration in content and content pedagogy and professional course work for the development of individual clinical competencies.

Individuals seeking Connecticut certification must take courses required for their license in a Master's Planned Program of Study. This program consists of foundation courses, subject content courses, professional courses, field experiences, and residency teaching.

The following certification tracks are available: Elementary content area courses; Secondary Academic Subjects: Biology, Physics, General Science, Chemistry, Earth Science, English, Mathematics, History and Social Studies, and Music (K-12).

Teacher Preparation Programs

Candidates who seek certification to teach in Connecticut must follow a Planned Program of Study that results in a Master's Degree and a recommendation by the State Certification Officer at the University for an Initial Educator Certificate in the State of Connecticut.

Admissions into the Master's Degree  
(Certification Track Programs)

Students seeking certification must apply to the program of their choice and must meet the following requirements PRIOR to admission into a Certification Track Program in Elementary, Secondary Academic Subjects, or Music:

1. A Bachelor's Degree in a subject area major (not professional education) from a regionally accredited institution with thirty-nine credits in general education, including course work in English, Mathematics, Natural Science, Social Studies, and World Language or Fine Arts (Grades below a C are NOT accepted for this category).

2. Passing scores on the PRAXIS I exams in Reading, Writing, and Mathematics or an official Essential Skills Test waiver based on required passing scores on the SAT, ACT, GRE, or La Prueba de Aptitud Academica.

3. Undergraduate GPA of at least a B.

4. A well-written essay, at least 350 words, describing the candidate's reasons for enrolling in the program and experience relevant to teaching and demonstrating the appropriate dispositions for becoming a teacher.

5. Two letters of recommendation from persons able to testify to the candidate's suitability as a prospective teacher and potential for graduate-level work.

Candidates seeking admission to the certification-track programs are expected to possess basic technology proficiencies, such as word processing, sending and receiving e-mail messages, using the Internet, and the University's web based platforms.

All candidates for Connecticut State Certification must meet the following additional requirements prior to recommendation for certification:

1. Completion of all required Planned Program course work

2. Completion of all General Education (undergraduate requirements)

3. PRAXIS I (or waiver) and PRAXIS II examinations, as well as any additional - state mandated assessments for specific certification areas

4. Demonstration of all state-required program competencies

5. Demonstration of the knowledge, skills, and dispositions for teaching in the program area, including successful completion of all performance assessments specific to the certification program.

Program Goals

The Teacher Preparation Program Goals coincide with the six domain goals of the Connecticut Common Core of Teaching and the national States' Common Core of Teaching. The Teacher Preparation program at the University of Bridgeport seeks to develop teachers who can accomplish all of the following:

1. Understand and apply essential skills, central concepts, and tools of inquiry in their subject matter or field.

2. Promote student engagement, independence, and interdependence in learning by facilitating a positive learning community.

3. Plan and Implement instruction in order to engage students in rigorous and relevant learning and to promote their curiosity.
**Education** Master of Science in Elementary or Secondary Degrees, Sixth Year Certificates of Advanced Studies, and Certification Areas

4. Use multiple measures to analyze student performance and to inform subsequent planning and instruction.

5. Maximize support for student learning by developing and demonstrating professionalism, collaboration with others, and leadership.

**Elementary Education, K-6, Certification Track Program**

*Co-Chair: Steven Rosenberg, Lori Noto*

Email: srosenbe@bridgeport.edu, lorinoto@bridgeport.edu

**Planned Program of Study**

**PRE-PROFESSIONAL REQUIREMENTS COURSEWORK**

- **FOUNDATIONS OF EDUCATION – 3 credits (required)**
  - EDUC 502 Philosophical Foundations of Modern Education 3
  - or EDUC 503 Differentiated Instruction: Building on Student Diversity 3

- **HUMAN GROWTH AND DEVELOPMENT – 3 credits (required)**
  - EDUC 509 Psychological Foundations in Education 3

- **SPECIAL EDUCATION – 3 credits (required)**
  - EDUC 564 Education of the Exceptional Student 3

**PROFESSIONAL EDUCATIONAL REQUIREMENTS**

**CURRICULUM AND METHODS OF TEACHING**

**METHODS AND MATERIALS – 6 credits (required)**

- EDUC 441C Methods and Materials in Teaching Mathematics 2
- EDUC 442C Methods and Materials in Teaching Social Studies 2
- EDUC 443C Methods and Materials in Teaching Science 2

**LITERACY – 9 credits (required)**

- EDUC 440C Methods and Materials in Teaching Language Arts 3
- EDUC 573 Early Literacy Instruction 2
- EDUC 574 Developmental Reading in the Elementary School 3

**STATUTORY REQUIREMENTS – 1 credit (required)**

- EDUC 511 Statutory Requirements in Education 1

**FIELD EXPERIENCE/RESIDENCE TEACHING – 6 credits plus Supervised Residency Teaching**

- EDUC 450 Field Experience 6* or EDUC 515C Internship — First Semester 3

**ADDITIONAL GRADUATE COURSES AND ELECTIVES**

Additional Graduate Coursework (Required if noted)

**LITERACY AND ENGLISH LANGUAGE LEARNING**

- EDUC 536C Children’s Literature 3
- EDUC 570 Instruction for the English Language Learner 1

**UNITED STATES HISTORY**

- HIST 300 U.S. History for Teachers 3

**FINAL DEGREE REQUIREMENT**

- Master of Science degree is a minimum of 33 credits.
- A minimum of 6 credits must be completed.

**Total Number of Credits**

**ADDITIONAL PROGRAM REQUIREMENTS**

- EDUC 509 Psychological Foundations in Education 3

**SPECIAL EDUCATION – 3 credits (required)**

- EDUC 566 Contemporary Educational Problems II 3

- (Students must take the Methods and Materials course specific to the certification area).

**PROFESSIONAL EDUCATIONAL REQUIREMENTS**

**CURRICULUM AND METHODS OF TEACHING**

**METHODS AND MATERIALS – Secondary Level – 3 credits (required)**

(Secondary English Education Program Students)

- EDUC 575J Reading and Writing in the Content Areas 3
- EDUC 556J Adolescent Literature 3

**STATUTORY REQUIREMENTS – 1 credit (required)**

- EDUC 511 Statutory Requirements in Education 1

Supervised Residency Teaching

- EDUC 450 Field Experience 6*
- EDUC 515J Internship 3
- or EDUC 516J Internship 3
- or EDUC 548J Directed/Supervised Residence Teaching 6

**ADDITIONAL PROGRAM REQUIREMENTS**

Additional Coursework Required if Noted

- EDUC 440J Methods and Materials in Teaching Language Arts 3
- or EDUC 441J Methods and Materials in Teaching Mathematics 3
- or EDUC 442J Methods and Materials in Teaching Social Studies 3
- or EDUC 443J Methods and Materials in Teaching Science 3

**CONTENT LITERACY & LITERATURE – 3 credits (required)**

- EDUC 575J Reading and Writing in the Content Areas 3
- EDUC 576J Adolescent Literature 3

**FINAL DEGREE REQUIREMENT**

- Master of Science degree is a minimum of 33 credits.
- A minimum of 6 credits must be completed.

**Total Number of Credits**

**Masters of Science in Secondary Education, Certification Track Programs**

**Planned Program of Study**

**PRE-PROFESSIONAL REQUIREMENTS COURSEWORK**

- **FOUNDATIONS OF EDUCATION – 3 credits (required)**
  - EDUC 502 Philosophical Foundations of Modern Education 3
  - or EDUC 503 Differentiated Instruction: Building on Student Diversity 3

**ADDITIONAL GRADUATE COURSES AND ELECTIVES**

Additional Graduate Coursework (Required if noted)

**LITERACY AND ENGLISH LANGUAGE LEARNING**

- EDUC 536C Children’s Literature 3
- EDUC 570 Instruction for the English Language Learner 1

**UNITED STATES HISTORY**

- HIST 300 U.S. History for Teachers 3

**FINAL DEGREE REQUIREMENT**

- Master of Science degree is a minimum of 33 credits.
- A minimum of 6 credits must be completed.

**Total Number of Credits**
Education Master of Science in Elementary or Secondary Degrees, Sixth Year Certificates of Advanced Studies, and Certification Areas

OTHER REQUIREMENTS FOR STATE OF CONNECTICUT CERTIFICATION

Additional Coursework for Certification or Endorsement (required if noted)

*EDUC 450 may be taken in 2 semesters (3 credits each) or one semester at 6 credits.

Specific Subject Area Requirements for Secondary Certification

Each student must have the appropriate undergraduate coursework for the certification area. Students are advised to check with their academic advisor for all undergraduate and graduate certification requirements.

BIOLGY, CHEMISTRY, EARTH SCIENCE, GENERAL SCIENCE, OR PHYSICS

Chair: Nelson Ngoh
Email: ngoh@bridgeport.edu

REQUIREMENTS

Undergraduate major in certification area or 30 credits plus nine credits in related subject(s) in certification area

EDUC 443J Methods/Materials, Teaching Science 3

Students need to complete all requirements on their Planned Programs of Study and pass all performance assessments.

ENGLISH

Chair: Patricia Mulcahy-Ernt
Email: mulcahyp@bridgeport.edu

REQUIREMENTS

English major or 30 credits plus nine credits in related subject(s)

EDUC 440J Methods/Materials, Teaching Language Arts 3

EDUC 536J Adolescent Literature 3

EDMM 625 Teaching Writing in Classrooms 1

Students need to complete all requirements on their Planned Programs of Study and pass all performance assessments.

MATHEMATICS

Chair: Allen P. Cook
Email: acook@bridgeport.edu

REQUIREMENTS

Mathematics major or 30 credits plus nine credits in related subject(s)

EDUC 44J Methods/Materials, Teaching Mathematics 3

Students need to complete all requirements on their Planned Programs of Study and pass all performance assessments.

MATH CONTENT – 12 credits (required)

MATH 401 Analysis I (EDMM 600B) 3

MATH 402 Analysis II (EDMM 600B) 3

MATH 407 Analysis III (EDMM 600B) 3

MATH 414 Numerical Analysis (EDMM 600B) 3

HISTORY AND SOCIAL STUDIES

REQUIREMENTS

History major plus 18 credits in other social sciences; or major in Anthropology, Sociology, Political Science, Geology, Economics, plus 18 credits in history

EDUC 442J Methods/Materials, Teaching Social Studies 3

Students need to complete all requirements on their Planned Programs of Study and pass all performance assessments.

Music Education, K-12, Certification Track

Chair: Jeffrey Johnson
Email: jjohnson@bridgeport.edu

Planned Program of Study FOUNDATIONS OF EDUCATION REQUIREMENTS COURSEWORK

FOUNDATIONS OF EDUCATION – 3 credits (required)

EDUC 502 Philosophical Foundations of Modern Education 3

or EDUC 503 Differentiated Instruction: Building on Student Diversity 3

HUMAN GROWTH AND DEVELOPMENT – 3 credits (required)

EDUC 509 Psychological Foundations in Education 3

or EDUC 560M Human Growth and Development* 3

*These course requirements may be met by taking an appropriate undergraduate course with a grade of at least a “B,” taken within the past five years.

SPECIAL EDUCATION – 3 credits (required)

EDUC 564 Education of the Exceptional Student 3

PROFESSIONAL EDUCATION REQUIREMENTS

CURRICULUM AND METHODS OF TEACHING

METHODS AND MATERIALS – 6 credits (required)

MSED 343 Music in Elementary Schools 3

MSED 380 Music in Secondary Schools 3

CONTENT LITERACY – 3 credits (required)

EDUC 575M Reading and Writing in the Content Areas 3

FIELD EXPERIENCE/STUDENT TEACHING – 6 credits plus Student Teaching

EDUC 450 Field Experience 6*

or EDUC 515M Internship 3

and EDUC 516M Internship 3

and MSE 590 Directed/Supervised Residency Teaching, Music 6

ADDITIONAL PROGRAM REQUIREMENTS

STATUTORY REQUIREMENTS – 1 credit (required)

EDUC 511 Statutory Requirements 1

ADDITIONAL COURSEWORK (Required if Noted)

EDUC 500 Research and Report Writing 3

EDUC 570 Instruction for the English Language Learner 3

Other Electives 1-9

FINAL DEGREE REQUIREMENT

EXAMINATIONS (required for certification)

PRAXIS II 3

EDUC 566 Contemporary Educational Problems II 3

EDUC 595 Thesis Research 3

Total Number of Credits

Master of Science degree is a minimum of 33 credits (not including 6 credits of student teaching)

OTHER REQUIREMENTS FOR STATE OF CONNECTICUT CERTIFICATION

Survey Course of United States History – 3 credits (required)

Additional Coursework for Certification or Endorsement (required if noted)

*EDUC 450 may be taken in 2 semesters (3 credits each) or one semester at 6 credits.
Master of Science in Elementary or Secondary Education, Certification Track Program in Remedial Reading and Remedial Language Arts

Chair: Patricia Mulcahy-Emr
Email: mulcaymp@bridgeport.edu

This 33 credit Master of Science degree course of study program at either the Elementary or Secondary level provides extensive course work and experiences in working with students in the field of literacy and language arts, leading to the initial educator certification in Remedial Reading and Remedial Language Arts. An individual with an appropriately regionally accredited Bachelor's degree may apply for this program. Although the program focuses on literacy for grades 1-12, the candidates elect either an Elementary degree focus or a Secondary degree focus through their field experiences and research. This concentration focuses on working with students in a variety of instructional settings for the purpose of teaching literacy processes, for evaluating students in reading and language arts, and for developing and evaluating literacy programs. Students learn to create appropriate literacy instruction for learners experiencing difficulty in reading and language arts.

Program Goals
The program goals in literacy are adapted from the international Reading Association Standards for reading Professionals - Revised 2010. The goals in Literacy for the Remedial Reading and Remedial Language Arts Program are as follows:

1. Reading professionals understand the theoretical and evidence-based foundations of reading and writing processes and instruction.
2. Reading professionals use instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support learning in reading and writing.
3. Reading professionals use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction.
4. Reading professionals create and engage their students in literacy practices that develop awareness, understanding, respect, and a valuing of differences in our society.
5. Reading professionals create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments.
6. Reading professionals recognize the importance of, demonstrate, and facilitate professional learning and leadership as a career-long effort and responsibility.

Admissions Criteria
1. A valid Connecticut teaching certificate (or proof of eligibility);
2. An appropriate regionally accredited Bachelor's degree;
3. At least two letters of recommendation from persons able to testify to your suitability as a prospective teacher and your potential for graduate-level work;
4. An essay demonstrating a command of the English language and setting out the reasons for wanting to enroll in the program and the emphasis of teaching experience relevant to teaching;
5. A successful team interview with faculty;
6. Completion of at least 30 school months of successful classroom teaching experience.
7. Connecticut's essential skills testing requirement: passing scores in the PRAXIS I exams in Reading, Writing, and Mathematics or an official essential skills test waiver currently meeting this requirement.

Planned Program of Study

PREREQUISITE REQUIREMENTS

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Foundations of Education</td>
<td>3</td>
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<tr>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Children's or Adolescent Literature</td>
<td>3</td>
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<tr>
<td>Special Education</td>
<td>3</td>
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PROFESSIONAL EDUCATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Reading and Language Arts</th>
<th>Credits (required)</th>
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</thead>
<tbody>
<tr>
<td>EDUC 440C Methods and Materials in Teaching Language Arts</td>
<td>3</td>
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<tr>
<td>or EDUC 440M</td>
<td>Methods and Materials in Teaching Language Arts</td>
</tr>
<tr>
<td>and EDUC 574 Developmental Reading in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>and EDUC 575 Reading and Writing in the Content Area</td>
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</tbody>
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DIAGNOSIS AND REMEDIATION OF READING AND LANGUAGE ARTS DIFFICULTIES – 3 credits (required)

| Diagnosis and Intervention of Reading and Language Arts Difficulties | 3 |

TESTS AND MEASUREMENTS – 3 credits (required)

| Evaluation of Instructional Outcomes | 3 |

CLINICAL PRACTICES IN READING AND LANGUAGE ARTS – 7 credits (required)

| Field Experience in Reading and Language Arts | 1 |
| Practicum in Reading and Language Arts | 6 |

ADDITIONAL PROGRAM REQUIREMENTS

SECOND LANGUAGE LEARNING AND ACQUISITION – 1 credits (required)

| Instruction for the English Language Learner | 1 |

ADDITIONAL GRADUATE COURSEWORK (required if noted)

| Research and Report Writing | 3 |
| Internship | 3 |
| Internship | 3 |
| Instruction for the English Language Learner | 3 |
| Early Literacy Instruction | 2 |

FINAL DEGREE REQUIREMENT

(Choose one of the following)

| Contemporary Educational Problems II | 3 |
| Studies in Literacy Research | 1 |
| Thesis Research | 2-6 |
**ADDENDUM COURSEWORK FOR CERTIFICATION**  
(required if noted)

**Total Number of Credits**

M.S. Total Minimum: 33 credits

Students need to complete all requirements on their Planned Programs of Study and pass all performance assessments.

**Professional Educator Development**

**Master of Science in Elementary or Secondary Education/Certificate of Advance Studies (CAS) in Elementary or Secondary Education**

Chair: Norma Atkinson  
Carlson Hall, Room 108  
Telephone: (203) 576-4028  
Fax: (203-576-4200  
Email: natkinso@bridgeport.edu

This degree program provides advanced study for certified teachers and for persons interested in careers related to school-age students.

**Professional Educator Development**

This program is designed for students who are certified teachers or who wish to pursue a Master’s degree in Elementary or Secondary Education (33 credits), or 6th year (30 credits) Certificate of Advanced Studies in Elementary or Secondary Education.

**PROGRAM REQUIREMENTS**

The Professional Educator Development Program combines a basic core with selected courses.

**CORE COURSES**

In the Research and Report Writing course (3 credits), students analyze their own school experiences and determine competencies they wish to achieve. In the Differentiated Instruction course (3 credits), methods for addressing the needs of students’ diverse strengths, background, experiences, gender, linguistic, and learning styles will be presented. In the Teacher Leadership course (3 credits), methods to maximize students’ learning potential, and provide students with quality learning experiences, alignment of standards, lessons and assessments. In the final core requirement, Contemporary Problems in Education (3 credits) students demonstrate those competencies in a clinical and a research setting.

**ELECTIVE COURSE TOPICS**

Courses are offered in the following topics for a total of 30 or 33 credits, with several courses available under each topic. For courses offered each semester, consult the course schedule. On ground, online and hybrid formats available. Depending on availability and course scheduling, candidates may choose from among the following (courses vary between one and three credits):

- EDUC: Course Description  
  - 450 Field Experience  
  - 515 Clinical Experience – Internship Program

- EDM: Course Description  
  - 606 No room for Bullying  
  - 609 Small Group Instruction

- 610 Technology Integration  
  - 617 Development and Design of Blended Learning Instructional Modules

- 618 Technology Literacy  
  - 619 Web Quest in Interactive Classroom

- 620 Applications of English Grammar  
  - 623 Interactive Reading/Balanced Literacy

- 624 Literacy Lessons - CMT  
  - 626 Principles of Early Childhood Education

- 627 Developmentally Appropriate Classrooms  
  - 628 Family and Community Partnerships

- 632 Dynamics of Classroom Environment  
  - 633 Critically Reflecting on Practice

- 641 Identifying & Teaching Academically Gifted  
  - 642 Differentiated Instruction

- 643 The Art of Teaching Boys & Girls Differently  
  - 644 Character Education

- 645 Student Centered Instruction  
  - 646 Reaching Difficult Students

- 647 Mastering the Interview Process  
  - 649 Positive Student/Teacher Relationships

- 669 Mysteries of the U.S - Historical  
  - 670 Instructing with Modern Media

- 671 Using Historical Fiction  
  - 672 Urban Education

- 679 Using STEM in the Classroom  
  - 687 Inquiry Learning Across Disciplines

- 682 Teacher Leadership  
  - 684 A Practical Guide to CCT

- 699 Testing & Assessment Strategies in Education
Reading professionals use instructional approaches, materials, and an integrated, comprehensive balanced curriculum to support learning in reading and writing.

3. Reading professionals use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction.

4. Reading professionals create and engage their students in literacy practices that develop awareness, understanding, respect, and a valuing of differences in our society.

5. Reading professionals create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments.

6. Reading professionals recognize the importance of, demonstrate, and facilitate professional learning and leadership as a career-long effort and responsibility.

Admissions Criteria

1. A valid Connecticut teaching certificate (or proof of eligibility);
2. An appropriate regionally accredited Master’s degree;
3. At least two letters of recommendation from persons able to testify to your suitability as a prospective teacher and your potential for graduate-level work;
4. An essay demonstrating a command of the English language and setting out the reasons for wanting to enroll in the program and emphasizing experience relevant to teaching;
5. A successful team interview with faculty;
6. Completion of at least 30 school months of successful classroom teaching experience.

Program Goals

The program goals in literacy are adapted from the international Reading Association Standards for reading Professionals - Revised 2010. The goals in literacy for the Remedial Reading and Remedial Language Arts Program are as follows:

1. Reading professionals understand the theoretical and evidence-based foundations of reading and writing processes and instruction.
2. Reading professionals use instructional approaches, materials, and an integrated, comprehensive balanced curriculum to support learning in reading and writing.
3. Reading professionals use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction.

PREREQUISITE REQUIREMENTS* (6 credits)

EDUC 509 Psychological Foundations in Education 3

EDUC 536C Children’s Literature 3

or EDUC 536J Adolescent Literature 3

SPECIAL EDUCATION – 3 credits (required)

EDUC 564 Education of the Exceptional Student 3

PROFESSIONAL EDUCATION REQUIREMENTS**

EDUC 440C Methods and Materials in Teaching Language Arts 3

or EDUC 440M/J Methods and Materials in Teaching Language Arts 3

and EDUC 574 Developmental Reading in the Elementary School 3

and EDUC 575M/J Reading and Writing in the Content Areas 3

DIAGNOSIS AND REMEDIATION OF READING AND LANGUAGE ARTS DIFFICULTIES – 3 credits (required)

EDUC 571 Diagnosis and Intervention of Reading and Language Arts Difficulties 3

TESTS AND MEASUREMENTS – 3 credits (required)

EDUC 558 Evaluation of Instructional Outcomes 3

CLINICAL FIELD EXPERIENCES – 7 credits (required)

EDUC 596 Field Experience in Reading and Language Arts 3

EDUC 597 Practicum in Reading and Language Arts 6

ADDITIONAL PROGRAM REQUIREMENTS (4-12 credits)

SECOND LANGUAGE LEARNING AND ACQUISITION (required as noted)

EDUC 570 Instruction for the English Language Learner 1

STATUTORY REQUIREMENTS (required as noted)

EDUC 511 Statutory Requirements in Education 1

ADDITIONAL GRADUATE COURSEWORK (required as noted)

EDUC 573 Early Literacy 2
Education Sixth Year Certificate of Advanced Study (CAS) in Elementary or Secondary Education Remedial Reading and Language Arts

**FINAL DEGREE REQUIREMENT**

(Choose one of the following:)

**INDEPENDENT STUDY**
- EDUC 668  Literacy Research Project  1
- EDUC 669  Sixth Year Project  1-3

**THESIS RESEARCH**
- EDUC 695  Advanced Thesis Research — Sixth Year  2-6

**Credits for Certification**  21
Students need to complete all requirements on their Planned Programs of study. Students seeking to complete the Sixth Year Degree must complete an additional 9 credits, inclusive of the Final Degree Requirement.

**Total Number of Credits:**
Sixth Year degree Total Minimum: 30 Credits

*With prior written adviser approval these courses may be met by taking undergraduate courses with a grade of a “B” or higher.

**These courses are required for the Sixth Year Certificate Program in Remedial Reading and Remedial Language Arts.
Education  Sixth Year Certificate of Advance Studies (CAS) with Reading and Language Arts Consultant Certification

Chair: Patricia Mulcahy-Ernt  
Carlson Hall, Room 118  
Telephone: (203) 576-4201  
Fax: (203) 576-4200  
Email: mulcahype@bridgeport.edu

The Reading and Language Arts Consultant is a Teacher Certification Program designed to prepare educators for leadership positions in elementary, middle, and secondary schools. The program prepares the student for the roles of a curriculum and instructional leader, including the following: organizing, supervising, and enhancing literacy programs; coordinating the instruction and assessment of students in reading and language arts; guiding, improving, and enriching reading and language arts instruction in all content areas; and collaborating with teachers, administrators, parents, and other literacy leaders.

Applicants must have completed an appropriate Master’s degree, must have a valid teaching certificate (or be eligible for Connecticut certification) in elementary, middle, or secondary education; must have completed a minimum of thirty months of successful classroom teaching experience; and must have completed all state required tests, including the Connecticut Foundations of Reading Test. Upon the completion of the Planned Program with appropriate coursework, field experiences, performance assessments, and the demonstration of required certification competencies, a student may apply for the Reading and Language Arts Consultant certification.

Program Goals

The program goals in literacy are adapted from the international Reading Association Standards for reading Professionals - Revised 2010. The goals in literacy for the Reading and Language Arts Consultant Program are as follows:

1. Reading professionals understand the theoretical and evidence-based foundations of reading and writing processes and instruction.
2. Reading professionals use instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support learning in reading and writing.
3. Reading professionals use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction.
4. Reading professionals create and engage their students in literacy practices that develop awareness, understanding, respect, and a valuing of differences in our society.
5. Reading professionals create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments.
6. Reading professionals recognize the importance of, demonstrate, and facilitate professional learning and leadership as a career-long effort and responsibility.

Admissions Criteria

1. A valid Connecticut teaching certificate (or proof of eligibility);
2. An appropriate regionally accredited Master's degree;
3. At least two letters of recommendation from persons able to testify to your suitability as a prospective teacher and your potential for graduate-level work;
4. An essay demonstrating a command of the English language and setting out the reasons for wanting to enroll in the program and emphasizing experience relevant to teaching;
5. A successful team interview with faculty;
6. Completion of at least 30 school months of successful classroom teaching experience.
7. Connecticut's essential skills testing requirements: passing scores in the PRAXIS I exams in Reading, Writing, and Mathematics or an official essential skills test waiver currently meeting this requirement.

PREREQUISITE REQUIREMENTS*

*These requirements may be met by taking an undergraduate or graduate course with a grade of at least a “B.”

EDUCATIONAL PSYCHOLOGY – 3 credits (required)

EDUC 509 Psychological Foundations in Education 3

CHILDREN’S OR ADOLESCENT LITERATURE – 3 credits (required)

EDUC 536G Children’s Literacy 3

or EDUC 536J Adolescent Literacy 3

SPECIAL EDUCATION – 3 credits (required)

EDUC 564 Education of the Exceptional Student 3

TESTS AND MEASUREMENTS – 3 credits (required)

EDUC 558 Evaluation of Instructional Outcomes 3

CURRICULUM: METHODS AND MATERIALS IN TEACHING LANGUAGE ARTS – 3 credits (required)

EDUC 440C Methods and Materials in Teaching Language Arts 3

or EDUC 540M Methods and Materials in Teaching Language Arts 3

SECOND LANGUAGE LEARNING AND ACQUISITION – 1 credit (required)

EDUC 570 Instruction for the English Language Learner 1

Total Credits 16

INITIAL PROGRAM REQUIREMENTS

(The initial program requirements may be met through completion of the following courses at the Master’s or Sixth Year level:)

DEVELOPMENTAL READING – 6 credits (required)

EDUC 574 Developmental Reading in the Elementary School 3

and EDUC 575M/J Reading and Writing in the Content Areas 3

DIAGNOSIS AND REMEDIATION OF READING AND LANGUAGE ARTS DIFFICULTIES – 3 credits (required)

EDUC 571 Diagnosis and Intervention of Reading and Language Arts Difficulties 3

CLINICAL FIELD EXPERIENCE – 7 credits (required)

EDUC 596 Field Experience in Reading and Language Arts 1

EDUC 597 Practicum in Reading and Language Arts 6

Total Credits 16
Education  Sixth Year Certificate of Advance Studies (CAS) with Reading and Language Arts Consultant Certification

ADVANCED PROGRAM REQUIREMENTS ______

ADVANCED READING AND LANGUAGE ARTS DIAGNOSIS
– 2 credits (required)
EDUC 572 Advanced Diagnosis of Reading and Language Arts Difficulties 2

ORGANIZATION, ADMINISTRATION, AND SUPERVISION OF READING – 4 credits (required)
EDLD 611 Administration: Organizing and Staffing Educational Institutions 3
or EDLD 613 Leadership 3
EDLD 611A Organization, Administration, and Supervision of Reading and Language Arts Programs 1

READING AND LANGUAGE ARTS CONSULTANT PRACTICUM AND APPLIED RESEARCH – 6 credits (required)
EDLD 683 Internship for the Reading & Language Arts Consultant 6
Total Credits _________________________ 12

ADDITIONAL PROGRAM REQUIREMENTS ______

FINAL DEGREE REQUIREMENT
(Choose one of the following:)
EDUC 668 Literacy Research Project 1
EDUC 669 Sixth Year Project 3
or
EDUC 695 Advanced Thesis Research—Sixth Year 3

ADDITIONAL COURSEWORK FOR CERTIFICATION
(required if Noted)

Total Number of Credits
Sixth Year Total Minimum: 30 credits
Educational Administration and Supervision  Sixth Year Certificate of Advanced Study (CAS), Intermediate Administrator (092 Certification) Certification Track

Chair and Director: Ethan Margolis
Carlson Hall, Room 101
Telephone: (203) 576-4218
Fax: (203) 576-4200
Email: emargoli@bridgeport.edu

Program Goals
The Educational Leadership with Administration and Supervision Program Goals are adapted from Connecticut State Department of Education’s common Core of Leading (2013). The Educational Leadership with Administration and Supervision program at the University of Bridgeport seeks to develop leaders who can accomplish all of the following:

1. Develop a shared vision for student learning that creates meaning for the people in the organization and infuses purpose into the strategies and standards for actions linked to that vision.
2. Promote an instructional program, built on high expectations for all learners and conducive to student learning and professional growth, thereby developing a school culture of success for all learners.
3. Establish positive learning environments by developing trust and credibility through meaningful relationships.
4. Establish a culture that is open and inclusive, through modeling and expecting ethical and moral behaviors from all.

A student who holds a Master’s degree from an accredited college or university may apply to in the Sixth Year program. The Professional Diploma program consists of thirty semester hours.

The Sixth Year Program, leading to the professional Diploma in Educational Leadership with Administration and Supervision, is designed to meet requirements leading to administrator and supervisor certification (092). This Connecticut State Certification enables a candidate to apply for leadership positions other than Superintendent of Schools (093 certification). With the exception of Reading and Language arts, this certification would also include subject area consultant and curriculum coordinator.

Intermediate Administrator (092 Certification) Certification Track

Summary of Requirements
(30 SEMESTER HOURS)

CERTIFICATION REQUIRES COURSES IN EACH OF THE FIVE AREAS, AND A TOTAL OF 24 CREDITS BEYOND THE MASTER’S

REQUIRED CORE

I. PSYCHOLOGICAL/PEDAGOGICAL
*EDLD 621 Evaluation of School Effectiveness

II. CURRICULUM/PROGRAM MONITORING
*EDLD 651 Curriculum Development

III. SCHOOL ADMINISTRATION
EDLD 618 School Finance (required)
EDLD 619 School Law (required)

IV. PERSONNEL EVALUATION/SUPERVISION
EDLD 652 Supervision: Evaluation/Development

V. CONTEMPORARY EDUCATIONAL PROBLEMS/POLICY MAKING
EDLD 601 Introduction to Education Leadership

Notes:
1. Administrative Internship ED. 681A (3 credits) required
2. CAT Examination – required for 092 certification
3. EDUC 664 Supervision of Programs & Services for students with Exceptionalities (This requirement will be substituted for an elective if the candidate holds appropriate certification Social Work, Speech, Psychology, Special Ed.). Must be completed for certification.
4. Certification (092) = 24 credits
5. 6th Year professional Diploma = 30 credits

SUGGESTED ELECTIVES (3 Credits each)

EDLD 613 Contemporary Issues in Education Leadership
EDLD 614 Leadership & Management of School Facilities
EDLD 680A Urban Leadership
EDLD 615 Research & Data Informed Supervision

Electives offered by other departments or colleges, may be substituted with approval by the student’s advisor.

Total Semester Hours _____________________ 30
Program Director: Thomas Christ
Carlson Hall, Room 116
Telephone: (203) 576-4215
Fax: (203) 576-4200
Email: tchrist@bridgeport.edu

The Doctoral program in Educational Leadership at the University of Bridgeport is the first of its kind in Connecticut and has been operating since 1979. It is designed to enhance and improve the effectiveness of public and private organization leaders, school administrators, and researchers. Graduates and current students have held and hold significant positions in state-wide school systems, for-profit, non-profit institutions, colleges, and universities. The advanced graduate curriculum integrates the sound principles of administration, management, organizational psychology, information technology, program evaluation, quantitative, qualitative, action, and mixed research methodologies.

The program is specifically tailored to the working professional and is offered on a part-time basis (two evenings per week) at the U.B. Campus. Consequently, all courses and seminar are conveniently scheduled around the job of the working professional. The successful completion of the program leads to the Doctor of Education degree (Ed.D.).

The Doctoral Program takes into consideration the needs of such personnel in terms of both the content of the curriculum, orientation, and program organization. It is offered at the University of Bridgeport campus easily accessible from New York, New Jersey, and Massachusetts by car, train, or ferry.

The program requires a minimum of four years for completion, including three years of formal study, and a minimum of one year to complete the dissertation. During the first two years, students typically take one six credit doctoral seminar and one three credit research-evaluation course per semester. Students should take online-hybrid classes during year one and two summers as part of the residency requirement in the program.

1. Summary of Requirements

(62 SEMESTER HOURS)

Education Leadership Strand
EDLD 801 Program Development (6 Credits)
EDLD 804 Constitutional Law (6 Credits)
EDLD 805 Grant Writing, Procurement, and Policy (6 Credits)
EDLD 807 Organization Management (6 Credits)
EDLD 808 Human Relations (6 Credits)

Research and Evaluation Strand
EDLD 811 Intro to Research (3 Credits)
EDLD 812 Quantitative Research (3 Credits)
EDLD 814 Qualitative Research (3 Credits)
EDLD 815 Mixed Methods (3 Credits)
EDLD 816 Action Research Project
(3 Credits Repeatable up to 2X)

Dissertation Preparation Strand
EDLD 813 Literature Review (3 Credits)
EDLD 845 Dissertation: Comprehensive Exam (3 Credits)
EDLD 846 Dissertation: Proposal Defense (3 Credits)
EDLD 850 Continuous Dissertation (0 Credits)

Postsecondary Teaching Experience
EDLD 817 Postsecondary Teaching (2 Credits Repeatable up to 4X)

For 092 Certification Add
EDLD 881 Administrative Internship (3 credits) + CAT Exam
EDLD 864 Special Education for Administrators (3 Credits)

2. Residency

A substantial period of residence must be included in a doctoral program to provide significant faculty-student interaction, opportunities for exposure to and engagement with cognate disciplines and research scholars working in those disciplines, and significant face-to-face peer interaction among graduate students. Residency is established through continuous enrollment, fall, spring, and summer with a minimum of 3 credits per semester. Residency provides the opportunity for a mentor-apprentice relationship between faculty and students and time for in-depth and direct faculty support of students. Thus, the intent of the residency requirement is to ensure that doctoral students contribute to and benefit from the complete spectrum of educational, professional, and enrichment opportunities provided on and off the University of Bridgeport campus.

3. Dissertation Preparation

The dissertation proposal draft is a 12-15 page overview of the student’s ideas for their dissertation. The proposal draft which is created in the first year of the program as part of EDLD 811-Introduction to Research, EDLD 812-Quantitative Research, and EDLD-813-Literature Review should provide guidance for the selection of dissertation committee members as well as a basis for further expansion of the dissertation methodology and procedures which occurs in EDLD 814-Qualitative Research and EDLD 815-Mixed Methods Research. The purpose for the dissertation proposal draft is state the problem, purpose, research questions, methodology, and procedures to conduct the research project. The proposal draft will include a graphic depiction of the methodology and methods, and a time line for completion of the dissertation proposal including literature review and Human Subject approval. Discussing the research proposal in draft format with a potential committee chair, other potential committee members, and peers will enable the student to obtain advice early in the dissertation process as to the suitability of the topic and as to whether or not the research questions and methodologies are logical, appropriate, and sound.

4. Comprehensive Examination and Dissertation Proposal

All matriculated doctoral students wishing to become doctoral candidates must pass a written comprehensive examination. Passage of the comprehensive exam coincides with the final dissertation proposal. The comprehensive exam will consist of: (a) one research methodological question; (b) one program focus question; and (c) one area of specialization question related to the students’ dissertation topic. The questions will be designed by the doctoral faculty and the student to rigorously assess the mastery and synthesis of knowledge garnered during coursework. Further, it is intended to gauge the student’s potential for independent dissertation research. Students should take the exam at the conclusion of their third year, after all coursework has been completed. Students will have 30 days to complete the take home comprehensive exam. Each question should be 15
pages with no less than 15 appropriate citations per question representing coursework in the program, and the students’ research in their specialization strand. Following APA 6th edition is mandatory!

The dissertation proposal is a required component of the doctoral program, and must be approved for a student to become a doctoral candidate. The student, the student’s Chair, and the School of Education expect to see evidence of careful attention to APA 6th style and format in the proposal document. The UB Doctoral Guidelines are derived from standard practices among universities, libraries, and publishers. The student is expected to read and follow the Guidelines throughout the proposal preparation. The proposal includes the student’s statement of a research problem and the chosen method of investigating it. The proposal is the first step toward completion of the dissertation, which is an original contribution to one’s field of study. The study may be applied research; it may be experimental, quasi-experimental, or non-experimental in its design; it may include quantitative, qualitative, action, mixed or critical methodology. Writing the dissertation proposal begins immediately upon entering the Ed.D. program guided by a unique sequence of six 3-credit courses (EDLD: 811, 812, 813, 814, 815, 816). It is essential that the student be capable of discussing the theoretical basis of a proposed study and the specific methodologies and is approved by IRB and the dissertation committee before the student begins formal data collection. A proposal draft should contain the following headings:

5. Dissertation-Doctoral Candidacy

Once the student has successfully passed the Comprehensive Examination and completed the Dissertation Proposal, he or she is eligible to apply to be a Doctoral Candidate. The student should submit the form “Admission to Doctoral Candidacy” to the Director. This designation will be conveyed to the student by an official letter from the School of Education and/or the Department of Educational Leadership. Doctoral Candidacy allows the student to register for dissertation advising EDLD 850 which is a 0 credit course but is deemed to be full time.

A student must be a candidate for at least two semesters prior to the granting of the degree. Student may not, unless granted a waiver, defend the dissertation during the semester immediately following the semester during which he or she completed the proposal. The purpose of this requirement is to assure a minimal lapse of time for effective work on the dissertation after acquisition of the basic competence and after delineation and approval of the research problem and methodology. Once students are advanced to candidacy they must be enrolled in EDLD 850 continuously for dissertation advising and supervision (fall, spring and summer semesters) until graduation. If the student is not advanced to candidacy within six years from the time of admission to the doctoral program, the student should be dismissed from the program. Each student has a three-member dissertation committee, the director of the Ed.D. Program, and the Dean of School of Education.

Note: Completion of Doctoral Degree

The degree must be completed within seven years of the date from which the student started coursework in the doctoral program. In exceptional cases, the department may recommend that the Dean grant an extension of this limit.
Electrical Engineering  Master of Science Degree

Chair: Navarun Gupta  
Engineering Technology Building  
Telephone: (203) 576-4117  
Fax: (203) 576-4750  
Email: navarung@bridgeport.edu

This Program is designed to increase the student’s knowledge and competence in basic areas necessary for Modern Electrical Engineering, while affording sufficient freedom to allow an in-depth study of such areas as Communications, Control Systems, Electronics and Digital Processing.

The Department also offers, as an integral part of the Electrical Engineering Masters Degree, the opportunity to specialize in several Concentration Areas.

Electrical Engineering Concentration Areas:
1. Bio-Medical Engineering
2. Computer Communications and Networking
3. Environmental and Energy Management
5. Robotics and Automation
6. Security (IT Security, Biometrics, etc.)
7. Signal and Image Processing
8. Very Large Scale Integration (VLSI)
9. Wireless and Mobile Communications

Please refer to the Graduate Studies Division Catalog pages for course details of the concentration areas.

In addition, the department also offers the opportunity to acquire dual graduate degrees along with the M.S. degree in Electrical Engineering. Candidates for these dual Masters degree programs are typically required to complete a total of 48 credit hours to satisfy the requirements of two Masters degrees. This implies 18 credit hours in addition to the 30 hours required for the M.S. degree in Electrical Engineering.

Please refer to the Graduate Studies Division catalogue pages for detailed information on Dual Graduate Degree programs.

Furthermore, customized study plans to allow receiving the Electrical Engineering M.S. degree while pursuing either the Ph.D. degree in Computer Science and Engineering or the Ed.D. degree in Education are available. Doctoral students in these two programs should consult their respective doctoral advisors to work on their individualized plans. Further details on the dual M.S. in Electrical Engineering degree programs are available in the catalog section on Graduate Studies Division.

Admission Requirements
Students must have a Bachelor of Science in Electrical Engineering or a related field. In both cases, the department may require make-up of background deficiencies.

COURSE REQUIREMENTS

A. A total of 30 semester hours is required in an approved program of study. Some students in this program enter with an undergraduate record lower than desired. These students are told in their admit letter that they must take 33 or 36 or 39 credits for their MS in E.E program.

B. The Master’s thesis is optional. If undertaken, it counts as 6 semester hours and must be conducted under the supervision of an EE Department faculty member. If the Master’s thesis is not taken, then EE-597 must be taken for 3 credits.

C. 400 or 500 level courses in Electrical Engineering, Computer Engineering and Computer Science are acceptable, with advisor approval, to count for the course requirements of the MS in E.E program.

D. It is recognized that not all students will have the necessary depth of study in their preparatory program for the MSEE. Consequently, the Department may permit a maximum of two undergraduate electives to be taken for graduate credit.

E. A total of one course in Mechanical Engineering or Technology Management is allowed to be taken toward the Master of Science in electrical Engineering.

The elective courses may be chosen from the list of Electrical Engineering concentration areas or chosen in consultation with the graduate advisor.

The course requirements of the concentration areas are described in the Graduate Studies Division section of the catalog.

The concentration areas can be applied to satisfy the requirements of dual Masters degree programs of study.

Learning Outcomes
Students in the M.S. Electrical Engineering Program will be able to 1) demonstrate the ability to use techniques, skills and modern engineering tools necessary for engineering practice; 2) demonstrate the ability to plan and conduct laboratory experiments and interpret and report results; 3) demonstrate the ability to identify and apply concepts of engineering economics and project planning; 4) demonstrate knowledge of contemporary global and societal issues and their relationship; and 5) exercise strong oral and written communication skills including those needed for technical writing.
Global Development and Peace  Master of Arts Degree

Chair: Dr. Dave Benjamin
Carlson Hall 235
Telephone: (203) 576-4966
Fax: (203) 576-4967
Email: dbenjamin@bridgeport.edu

The Master of Arts in Global Development and Peace is designed for individuals who intend to pursue careers in international public service through intergovernmental organizations, government agencies, and non-governmental organizations. Graduates of the Master of Arts in Global Development and Peace will also be prepared for the careers in the private sector, especially to work in banks, insurance companies, corporations, and management firms that have branch offices, holdings, partnerships, and/or clients in developing countries.

All courses are 3 credits.

This graduate degree is designed to allow future civil servants and business professionals interested in global development and human security to develop an understanding of:

- Extant models of socioeconomic development
- Prerequisites for good governance in developing countries
- The impact of religion and culture on intra- and interstate relations.

Students in the program will also develop competence in:

- Quantitative and qualitative research and analysis.
- Negotiation and conflict resolution.
- Project management and related problem-solving skills

They are also expected to develop or demonstrate a Foreign Service Level 2 (limited working proficiency) of at least one world language beside English.

Masters of Arts Core Requirements

The program is developed as a 36 credit graduate course of study that requires four semesters of study including a overseas internship.

It requires the student to have completed some foundational coursework in political economy and have a working knowledge of at least one world language. Students may apply without the prerequisites, but they will need to demonstrate competency in these areas prior to completion of their degree. Undergraduate students in the College of Public and International Affairs who complete 12 semester hours of the program in addition to all the requirements for their undergraduate degree may receive a Graduate Certificate in Global Development & Peace provided they receive no grade lower than a B in the 12 graduate credits that they complete. These 12 semester hours must be in excess of the required 120 semester hours for graduation with the Bachelor's degree.

The curriculum of the Master's degree is designed so that students will develop competency in the following areas:

- Qualitative and Quantitative Research Methods and Their Applications to Development.
- International Political Economy and the Major Theories of Development.
- An Appreciation of the Role played by Religion and Culture in Development
- Conflict Analysis and Resolution
- Diplomacy and Negotiation

The Masters offers three potential tracks and students should choose from one of the following:

CONFLICT ANALYSIS AND RESOLUTION TRACK
For those interested in conflict management

INTERNATIONAL POLITICAL ECONOMY AND DEVELOPMENT TRACK
For those interested in development and its challenges

GLOBAL MANAGEMENT TRACK
For those interested in working in the commercial domain, especially in emerging and developing economies.

GLOBAL MEDIA AND COMMUNICATION
For those interested in public diplomacy or in serving as a spokesperson.

Course of Study

Sample Curriculum Sequence:

Semester I
Core (9 semester hours)
GLDP 511 Issues in Economic Development 3
GLDP 522 International Conflict and Negotiation 3
GLDP 528 Sociopolitical Implications of the World's Religions
Or GLDP 525 Globalization
*Note: All first semester GLDP students take these same core courses.

Specialization Track A Conflict Analysis and Resolution
Choose Two:
GLDP 525 Globalization
GLDP 540 Culture and Development or
GLDP 563 International Human Rights

Semester II
Core for All Students
GLDP 501 Research Methods

Specialization Track B International Political Economy & Development
Choose Two:
GMCS 511 Communication Theory
GMCS 529 Advanced Intercultural Communication
GMCS 545 Communication and National Development
GMCS 555 News Media & International Journalism
GMCS 562 Media Communication Law and Legal Issues
or
Specialization Track D Global Management
Choose Two:
GLDP 523 Corruption
GSB 570/MGMT 532 Global Program and Project Management 3
GSB 580/MGMT 523 Leadership, Teams & Managing Change 3
GLDP 528 Political and Economic Integration

Semester III
For all Tracks
GLDP 591 Internship
Global Development and Peace Master of Arts Degree

Semester IV

Specialization Track A Conflict Analysis and Resolution
Choose 2 plus one course in another Track B, C, or D
GLDP 560 Sustainable Development
GMCS 545 Communication and National Development
GLDP 563 International Human Rights
GMCS 529 Advanced Intercultural Communication

Specialization Track B International Political Economy and Development
Choose 2 plus one course in Track A, C, or D
GLDP 540 Culture and Development
GLDP 560 Sustainable Development
MGMT 532 Global Program and Project
GSB 539 International Issues

Specialization Track C Global Communication
Choose two plus one course in Track A, B or D
GMCS 555 News Media & International Journalism
GMSC 562 Media Communication Law and Legal Issues
GLDP 529 Advanced Intercultural Communication

Specialization Track D Global Management
Choose two plus one course in Track B, C, or D
FIN 500 International Trade and Finance
FIN 630 International Financial Management
FIN 745 Technical Analysis & Trading
GLDP 561 Sustainable Development
MGMT 779 International Issues
MGMT 632 Global Program and Project Management

Semester V

GLDP 598 Tutorial
GLDP 599 Thesis

Total Semester hours for Semesters I-V 36

ENGLISH LANGUAGE REQUIREMENT

For applicants whose native language is not English, a minimum score of 213 (computer) or 550 (paper) on the TOEFL (Test of English as a Foreign Language) is required.

Exception to these requirements will be considered on a case-by-case basis in consultation with the Director of the University’s English Language Institute and following completion of an oral and written English exam that is administered by the English Language Institute. Students with demonstrated difficulty communicating in English may be required to take an advanced ELI course even if they have earned between 213/550 and 250/600 TOEFL scores.

MINIMUM GRADE POINT AVERAGE REQUIREMENT

Candidates for the Masters of Arts in Global Development & Peace are required to maintain a minimum semester grade point average of 3.0 to remain in good academic standing. The Master of Arts in Global Development may only be conferred upon a student who has the minimum required average of a 3.0 at the conclusion of the student’s studies. To receive credit for the completion of one of the tracks, a minimum of a “B” must be received in each course within the concentration. Students failing to maintain minimum academic standards will be placed on academic probation at the end of the first semester in which they do not maintain a semester or overall GPA of at least 3.0 or earn a C- or lower grade in any class. If the student fails to raise his overall GPA above a 3.0 by the end of the semester following being placed on academic probation, fails again to earn at least a 3.0 semester GPA or again earns a C- or lower grade in any class, she or he will be separated from the GLDP program. A student separated from the program may apply for re-admission to the program following a minimum of one semester of not participating in the program. If, following this, the student does not achieve the needed 3.0, he or she is definitively separated from the program.

* Note for all academic programs in the College of Public and International Affairs, a portfolio is collected to track progress in programmatic outcomes.

Learning Outcomes

The Master of Arts in Global Development & Peace has the following learning outcomes:

1. Students will be able to explain and compare the major extant models for socioeconomic development.

2. Students will demonstrate that they have acquired the quantitative and qualitative research skills needed to undertake effective planning, analysis and implementation of projects related to socioeconomic development or conflict resolution.

3. Students will demonstrate an understanding of the institutional prerequisites for good governance in developing countries.

4. Students will demonstrate an appreciation of the impact that religion and culture can have on socioeconomic development.

5. Students will demonstrate the basic skills needed for effective communication and negotiation.

6. Students will demonstrate skills needed in problem solving and in project management through an overseas internship.

7. Students will demonstrate a working knowledge of a second language in addition to English.
The Master of Arts in Global Media and Communication Studies is designed so that students develop and demonstrate competency in the following areas:

- Demonstrate an understanding of the roles and functions of traditional and new media
- Demonstrate an ability to function as an effective communicator, writer, and spokesperson
- Demonstrate an understanding of the different media systems in the world and patterns of communication
- Demonstrate abilities and skills to communicate across cultures and nations
- Demonstrate an ability to use media and communication skills to address conflicts and misunderstandings
- Demonstrate an understanding of the legal and ethical issues in media communication
- Demonstrate abilities and skills in gathering, writing, and reporting news in foreign countries
- Develop abilities to create effective media content
- Demonstrate abilities to assess, use, and interpret information
- Develop basic knowledge of at least one world language other than English.

The Master of Arts in Global Media and Communication Studies offers two potential tracks and students choose one based on interests and skills:

**GLOBAL COMMUNICATION TRACK**

Students who elect this concentration will normally pursue a career in public diplomacy either (strike either) as a communications specialist either with a government, a government agency, an intergovernmental agency or a non-governmental agency or with a transnational corporation.

**NEW MEDIA TRACK**

Students choosing this track will normally work as webmasters, web designers or specialists for government-related agencies or in the corporate world.

The curriculum of the Master of Arts in Global Media and Communication Studies is designed so that students develop and demonstrate competency in the following areas:

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The Master of Arts in Global Media and Communication Studies offers two potential tracks and students choose one based on interests and skills:
Global Media and Communication Studies  Master of Arts Degree

SEMESTER III

GMCS 591  Internship  3

SEMESTER IV

GMCS 590  Media Communication Law  3

Global Communication Track (Choose Two of Following)  6

GMCS 535 International Advertising and Public Relations
GMCS 543 Communication and National Development
GMCS 555 News Media and International Journalism
GMCS 557 Political Communication and Public Diplomacy
GLDP 522 International Conflict and Negotiation
MKTG 550 Global Market Management

*One additional course outside the Global Communication Track

New Media Communication Track
(Choose Two of the Following)  6

GMCS 543 Communication and National Development
GMCS 555 Media Business and Management
GMCS 552 Advanced Web Publishing and Design
GMCS 572 Advanced Multimedia
GMCS Collaborative Design Studio I
GMCS Collaborative Design Studio II
GMCS Design Management I
GMCS Design Management II

*One additional course outside the New Media Communication Track

SEMESTER V

GMCS 598  Tutorial  3
GMCS 599  Internship  3

ENGLISH LANGUAGE REQUIREMENT

For applicants whose native language is not English, a minimum score of 213 (computer) or 550 (paper) on the TOEFL (Test of English as a Foreign Language) is required. Exception to these requirements will be considered on a case-by-case basis in consultation with the Director of the University’s English Language Institute and following completion of an oral and written English exam that is administered by the English Language Institute. Students with demonstrated difficulty communicating in English may be required to take an advanced ELI course even if they have earned between 213/550 and 250/600 TOEFL scores.

MINIMUM GRADE POINT AVERAGE REQUIREMENT

Candidates for the Masters of Arts in Global Media and Communication Studies are required to maintain a minimum semester grade point average of 3.0 to remain in good academic standing. The Master’s degree may only be conferred upon a student who has the minimum required average of a 3.0 at the conclusion of the student’s studies. To receive credit for the completion of one of the tracks, a minimum of a “B” must be received in each course within the concentration.

Students failing to maintain minimum academic standards will be placed on academic probation at the end of the first semester in which they do not maintain a semester or overall GPA of at least 3.0 or earn a C- or lower grade in any class. If the student fails to raise his overall GPA above a 3.0 by the end of the semester following being placed on academic probation, fails again to earn at least a 3.0 semester GPA or again earns a C- or lower grade in any class, she or he will be separated from the GLDP program.

A student separated from the program may apply for readmission to the program following a minimum of one semester of not participating in the program.

Curriculum

Core Curriculum (Required for both Program Tracks):

GLDP/GMCS 501  Research Methods  3
GMCS 529  Advanced Intercultural Communication  3
GMCS 511  Communication Theories  3
GMCS 537  Global Communication and Mass Media  3
GMCS 590  Communication Law and Legal Issues  3
GMCS 591  Internship  3
GMCS 598  Tutorial  3
GMCS 599  Thesis or Project Demonstrating Excellence (PDE)  3

Required Courses for Track Options (Take GMCS 543 and two additional courses)

Requirements for Track A: Global Communication Track:

GMCS 535  News Media and International Journalism  3
GMCS/GLDP 543  Communication and National Development  3
GMCS 557  Political Communication and Public Diplomacy  3
GMCS 535  International Advertising and Public Relations  3
GLDP 522  International Conflict and Negotiation  3

Total Semester Hours  36

Requirements for Track B: New Media Communication Track:

(Take GMCS 546 and two additional courses)

GMCS 518  Traditional Media and New Media  3
GMCS 552  Advanced Web Publishing and Design II  3
GMCS 572  Advanced Digital Video Creation II  3
GMCS 546  Social Media, Business and Society  3
GMCS/GLDP 543  Communication and National Development  9

Free elective  3
Mechanical Engineering Master of Science Degree

Chair: Junling Hu
Engineering Technology Building
Telephone: (203) 576-4575
Fax: (203) 576-4750
Email: jhu@bridgeport.edu

This degree program provides advanced study in traditional and contemporary Mechanical Engineering fields. The traditional concentration areas permits the student to increase his/her knowledge and competence in basic skills necessary to Mechanical Engineering while affording sufficient freedom to provide in-depth study in such areas as solid mechanics, structural dynamics, fluid mechanics, heat transfer, mechanical design and computational methods. The Design Management concentration area prepares the student to succeed in the current Design/Engineering industry and business. Studies include CAD/CAE/CAM, Ergonomics, Design and Innovation, and Intellectual Property and Technology. The Manufacturing Management concentration area provides advanced study in Manufacturing to individuals who are interested in the Manufacturing field. This permits students to have up-to-date knowledge, hands-on experience and strong competence in world-class manufacturing environments. Course work emphasizes global corporate and business practices, and Manufacturing Shop Floor environments.

Learning Outcomes

Students will 1) demonstrate the ability to design or analyze a system, component or process to meet desired needs within realistic, contemporary constraints such as health and safety, ethics, performance, sustainability and economics; 2) develop specialized advanced skills in mechanical engineering fields including fluid mechanics, heat transfer, material science, dynamics, vibrations, numerical methods, design and manufacturing; 3) demonstrate the ability to create, adapt, transfer and integrate existing and emerging technologies into new products, processes and services; 4) develop decision making, risk assessment and problem solving skills considering both economic and other constraints; and 5) develop both technical and management oral presentation and written communication skills.

Admission Requirements

The Master of Science degree in Mechanical Engineering is intended to prepare individuals with a strong mathematical, scientific, or technical background for entry into the Mechanical Engineering field at an advanced level and for further study leading to the doctorate. Admission to the program requires a Bachelor’s degree in Mechanical Engineering or a related engineering and/or design curriculum and make up of any deficiencies in previous training. Furthermore, an undergraduate background that includes elementary physics and calculus sequences, and linear algebra is required. The Design Management concentration area also requires a substantial proficiency in design to be demonstrated via previous design training or work experience. The Manufacturing Management concentration area requires an engineering/business background with substantial industrial experience. Applicants are expected to have an average of B or better in their undergraduate coursework.

In addition, the department also offers the opportunity to acquire dual graduate degrees along with the M.S. degree in Mechanical Engineering. Candidates for these dual Masters degree programs are typically required to complete a total of 48 credit hours to satisfy the requirements of two Masters degrees. This implies 18 credit hours in addition to the 30 hours required for the M.S. degree in Mechanical Engineering.

Please refer to the Graduate Studies Division catalogue pages for detailed information on Dual Graduate Degree programs. Furthermore, customized study plans to allow receiving the Mechanical Engineering M.S. degree while pursuing either the Ph.D. degree in Computer Science and Engineering or the Ed.D. degree in Education are available. Doctoral students in these two programs should consult their respective doctoral advisors to work on their individualized plans. Further details on the dual M.S. in Mechanical Engineering degree programs are available in the catalog section on the Graduate Studies Division.

COURSE REQUIREMENTS

Programs of Study will ordinarily consist of a minimum of 30 semester hours and include at least 12 semester hours from one of the following concentration areas:

TRADITIONAL CONCENTRATION AREA:

MEEG 410 Advanced Fluid Dynamics 3
MEEG 452 Advanced Vibration 3
MEEG 453 Finite Element Methods 3
MEEG 454 Advanced Dynamics 3
MEEG 463 Advanced Heat Transfer 3
MATH 401 Advanced Analysis 3

DESIGN MANAGEMENT CONCENTRATION AREA:

(Take 3 credits from Traditional Core Courses)
MEEG 421 Computer Aided Engineering/Design 3
MEEG 422 Advanced CAE/CAD Projects 3
MEEG 423 CAM & NC Machining 3
MEEG 430 Design & Innovation 3
MEEG 440 Ergonomics 3
MEEG 490 Intellectual Property & Technology 3

MANUFACTURING MANAGEMENT CONCENTRATION AREA:

(Take 3 credits from Traditional Core Courses)
MEEG 407 Materials & Methods in Manufacturing 3
MEEG 423 CAM & NC Machining 3
MEEG 571 Innovations & Product Development 3
MEEG 572 Production Technology & Techniques 3
MEEG 573 Supply Chain Management 3
MEEG 574 Principles of Logistics 3
MEEG 575 Manufacturing Strategy 3

Students must elect one of the following to satisfy state licensure requirements:

- Thesis MEEG 598 (6 semester hours)
- Masters Project MEEG 597 (3 semester hours)

The elective courses may be chosen from the list of Mechanical Engineering concentration areas or chosen in consultation with the graduate advisor.
The Master’s Program in Technology Management (TM) is designed to prepare you for the fast-moving global economy where the ability to manage advances in management, engineering, science and technology is critical to innovation, competition and success. We develop leaders adept at managing technology-dependent organizations, emerging technology-based entrepreneurial businesses, technology change and innovation, and skills in establishing and maintaining superior competitive advantages for their organizations.

The Master's program is an innovation interdisciplinary graduate program that enables you to seamlessly and easily integrate courses and concentrations offered by various departments and schools at UB. Our graduates have obtained positions in engineering, technology, management and other professional careers in a wide spectrum of industries and organizations. As an integral part of the M.S. in TM, we give you the opportunity to specialize in a number of exciting concentrations after you complete specific core courses. Thus preparing you for select highly sought after careers and creating entrepreneurial opportunities. For more information please contact the chair or visit: http://www.bridgeport.edu/ub/dlearning/department or visit: http://www.bridgeport.edu/ub/dlearning/department.

Learning Outcomes

The UB Technology Management Program is specifically designed to develop skills and competencies such as:

1. Identifying and evaluating the impact of relevant changing technology and managing those changes.
2. Designing programs to identify, develop and implement innovative technological based solutions.
3. Managing the effective planning and execution of those technology based initiatives and the integration of their results into the mainstream of an enterprises’ strategy, processes and operations.
4. The application of technology to create wealth.
5. Leadership, the creation and sustenance of high-performance global teams and enabling innovation.

The Department offers, as an integral part of the Technology Management Masters Degree, the opportunity to specialize in a number of concentrations, which are inter-disciplinary and available through various departments to provide more educational and career choices and flexibility for the students:

- Global Program and Project Management
- Manufacturing Management
- Corporate Management
- Information Technology & Analytics Management
- New Product Development, Management & Commercialization

Course Requirements

A. A total of 34 semester hours is required in an approved program of study for the M.S. in Technology Management.

B. Completion of the following core courses (18 credit hours):

- TCMG 400 Marketing, Entrepreneurship and Innovation Issues & Practices in Management
- TCMG 495 Technical Writing in Communications and Research in Engr & Tech Mgmt
- TCMG 524 Statistical Quality Control Techniques
- MGMT 555 or MGMT 632 Global Program & Project Management
- MGMT 523 Leadership, Teams and Managing Change
- TCMG 525 Finance and Accounting for Managers

C. Completion of TCMG 595 Capstone or TCMG 597 Master’s Project or TCMG 598 Master’s Thesis (3 credit hours):

TCMG 595 is a Capstone/Project course designed to integrate concepts taught throughout the program and requires the development of a Business Plan as one of the course requirements.

Students may alternately complete a thesis or master’s project.

D. Completion of ENGR 400 (1 credit)

E. Elective Courses (12 credit hours)

Students must take four elective courses (12 credit hours). These electives may be selected from any of the concentration areas listed above, in consultation with the program academic advisor. A list and description of the courses available in each concentration is available in the catalog section on course descriptions.

The concentration areas can be applied to satisfy the requirements of dual Masters degree programs of study.

Other Technology Management project courses:

- TCMG 500 Graduate Co-Op Internship in Technology Management (1-3 credit hours)
- TCMG 597 Master’s Project (3 credit hours)
- TCMG 597C Masters Project Extension (1 credit hour)
- TCMG 598 Thesis in Technology Management (3-6 credit hours)
- TCMG 599 Independent Study in Technology Management (3 credit hours)

As a pre-requisite for the program, all students are expected to have a demonstrated familiarity with statistical analysis. Any remedial course taken to meet this requirement will not be considered as an elective. Students are also expected to demonstrate basic computing skills.

Since July 2004, the Department of Technology Management has been offering these courses for the M.S. degree program in Technology Management through distance learning. For more information please contact the department or visit: http://www.bridgeport.edu/ub/dlearning/
**Computer Science and Engineering Ph.D. Program**

**Program Coordinator:**
Prof. Khaled Elleithy
Engineering Technology Building
Telephone: (203) 576-4703
Fax: (203) 576-4765
Email: elleithy@bridgeport.edu

The Ph.D. degree is a certification of critical aptitude in scholarship, imagination, knowledge in the discipline, enterprise in research, and proficiency and style in communication. A candidate obtaining a Ph.D. degree must display a thorough understanding in the major areas of computer science and engineering and must master the necessary tools and techniques so as to be able to make original contributions to the field of computer science and engineering. An equally important aspect is that of proficiency in oral and written communication skills.

The requirements of the Ph.D. program are: successful completion of preliminary examinations and courses, satisfactory performance in written comprehensive and oral examinations, admission to Ph.D. candidacy, successful completion and defense of original work documented as a dissertation, and the satisfaction of additional requirements such as teaching and seminars.

The formal degree to be offered is the Doctor of Philosophy in Computer Science and Engineering. This will be awarded to candidates who complete all the requirements of the Ph.D. degree described later in this section.

**Admission Requirements**

Students admitted to the Ph.D. program should have a master's degree in computer science or engineering or related discipline with at least a 3.3 GPA. Interested students in the Ph.D. program without an M.S. degree must apply and be admitted into the M.S. program first, and then upon finishing the M.S. degree, they would be eligible to apply for the Ph.D. program.

Students admitted from non-English speaking foreign countries, having a master's degree in computer science and engineering will also be required to have a TOEFL score of at least 550. GRE's are not required for admission into the program, but are recommended.

**Learning Outcomes**

The graduate from the Ph.D. program in the School of Engineering will: 1) use advanced mathematical proof methodologies in computer science and engineering; 2) demonstrate a strong and in depth background in hardware and software issues in computer science; 3) possess a strong background in implementing software systems and/or hardware systems; 4) possess a strong background in designing diverse and integrated software/hardware systems solutions; and 5) critically analyze problems and thoroughly evaluate potential benefits of alternative solution in designing software and/or hardware systems.

**Program Requirements**

A. **Academic Requirements:**

1. Completion of the formal requirements for an MSc. degree in computer science or computer engineering, including a thesis.
2. An additional eight (3-credit hours) courses, or 24 credit hours, in the discipline, including no more than two independent studies.
3. A two-semester teaching practice requirement (3 credit hours each), for which students are to register with no fees. The students will be expected to teach lower undergraduate level classes, and/or assist professors as teaching assistants (i.e., perform a significant teaching role), thus giving Ph.D. graduates experience for an academic teaching career.
4. At least 15 semester hours of dissertation research, culminating in a dissertation proposal defense and dissertation defense.
5. Comprehensive examination: written and oral (proposal defense).
6. Publication of at least two journal papers, or one journal and two refereed conference papers, within the course of the Ph.D. topic research. These publications are not required to be single authored by the student and they might be co-authored with members of the dissertation committee.

B. **Time and Load Guidelines:**

Both full and part-time students are encouraged to apply for the Ph.D. degree, which should be completed within a maximum of seven calendar years. A Ph.D. student (part-time or full-time) is expected to devote the necessary time to courses and research in order to make satisfactory progress toward the degree. Satisfactory progress includes active personal participation in the research and teaching environment of the School of Engineering. The student advisor and dissertation committee should advise the student as to her/his progress in the program. Full time students are required to register for at least 9 credit hours each semester while part-time students are required to register for at least 6 credit hours per academic year (spring and fall semesters).

C. **Course Work:**

A Ph.D. candidate must complete at least 24 credit hours of course work, not including the dissertation, beyond the MSc. degree. Upper level undergraduate remedial courses cannot be used to fulfill the course work requirement.

D. **Course Grade Point Average:**

A Ph.D. student is expected to maintain a G.P.A. of 3.0 or more. If the G.P.A. falls below 3.0, the student is automatically placed on probation. (Note: the grades in the transferred courses would not be used in the calculation of G.P.A.) Continued probationary status for two semesters may lead to dismissal of the candidate from the program. No grade less than C is acceptable towards the course work requirement.

E. **Seminar Requirement:**

A Ph.D. student is expected to present her/his research findings in public seminars. S/he is also expected to interact and participate in professional discussions and meetings such as conferences and workshops. In order to fulfill these requirements, a Ph.D. student is expected to present one seminar after the written comprehensive examination and before the dissertation defense. The seminar of his/her research topic for the dissertation serves as the oral (proposal defense) part.
of the comprehensive exam. The Ph.D. coordinator awards a Pass/Fail grade after consultation with the student's dissertation advisor. The student is required to register for one seminar course.

F. Comprehensive Examination:
One of the major checkpoints in the Ph.D. program that assesses the breadth and depth of the student is the written and/or oral (proposal defense) comprehensive examination. The comprehensive examination will test the breadth and depth of knowledge in all aspects of computer science and engineering.

The Ph.D. program coordinator will organize this comprehensive examination. The seminar requirement represents the oral (proposal defense) section of the exam. The outcome of this examination will be of fail or pass. A student can retake this examination no more than once. A student who does not pass the comprehensive examination in two attempts will be dismissed from the program.

G. Dissertation Committee:
After passing satisfactorily the written comprehensive examination and selecting a dissertation advisor, the student is required to define a problem of merit, carry out a literature search and prepare a course of action to solve the selected problem. The candidate is expected to produce a dissertation proposal. The Ph.D. program coordinator, in consultation with the dissertation advisor, recommends a dissertation committee for the student. The dissertation committee contains at least three members in addition to the dissertation advisor advisor. At least four members of the dissertation committee must be from a professorial rank within the school. Additionally, an external examiner is appointed as well. The external examiner is one who has been distinguished in the field of computer science and engineering. S/he might not hold a professorial rank. Ph.D. Program Coordinator and the Dean of the School of Engineering must then approve the dissertation committee.

H. Admission to Candidacy:
When a student passes the comprehensive examination and fulfills all other requirements, s/he will be admitted to Ph.D. candidacy. This serves as another important milestone in the progress towards the Ph.D. degree.

I. Dissertation:
The student is expected to work on the accepted topic and come up with original results. S/he has to report the results in the form of a Ph.D. dissertation. The student is encouraged to document the intermediate results in the form of technical reports. S/he is also encouraged to publish these results as they are discovered, in the international professional literature, i.e., refereed conference proceedings and journals. Proof of good work is the acceptance of the results by reputed journals. Intermediate results can also be discussed in departmental seminars. The completed dissertation must be distributed to the dissertation committee members at least two weeks before the dissertation defense. The committee will read it and certify that the dissertation is a work of substantial merit and that it can be defended. It is the responsibility of the student that the final draft of the dissertation addresses all legitimate concerns of the committee members.

J. Dissertation Defense Examination:
After having secured approval from the dissertation committee members regarding the worthiness of the dissertation, a student will proceed with a request for the dissertation defense examination. The chairman of the dissertation committee will chair the examination. The student will schedule a convenient time for a public defense. It is the responsibility of the student to find a time that is suitable to all the members of the dissertation committee, at least 2 weeks prior to the defense. At the end of the defense, the decision of the dissertation committee will be pass or fail. It is the responsibility of the dissertation advisor to see that the comments and the criticism of the audience are addressed adequately in the final version of the dissertation. Based on the recommendation of the dissertation committee, the Ph.D. coordinator, and the Departmental Chairman, the Dean of the School of Engineering will recommend the Ph.D. degree subject to the satisfaction of all other formal requirements.

**CONCENTRATION AREAS**
The following is a list of Research / Concentration Areas under the Ph.D. Program.

1. Computer architecture and VLSI and FPGA
2. Design, modeling and simulation of embedded and integrated systems
3. Electromechanical systems prototyping and optimization
4. Robotics, automation, machine perception and sensing
5. Software engineering, Web development and computational sciences
6. Systems and computer security and biometrics
7. Wireless and mobile computing and networking
8. Information Technology Globalization Track

**SUMMARY OF MILESTONES**
A summary of steps, not necessarily ordered, through which a student will proceed is as follows:

1. Admission to the Ph.D. program of computer science and engineering on a ‘provisional status’, if needed.
2. Completing prerequisites and finish the master degree, if needed.
3. Getting the status restored to ‘regular Ph.D. student’, if needed.
4. Completing the course work requirement for the Ph.D.
5. Passing the written comprehensive examination.
6. Admission to ‘Candidacy’.
7. Selection of a dissertation advisor.
8. Writing a dissertation proposal.
9. Completion of the seminar requirement and working on the proposed research topic.
11. Approval of the dissertation by the dissertation committee.
12. Successful completion of the dissertation defense.
13. Submission of dissertation to the School of Engineering.
Technology Management Ph.D. Program

Program Overview
The Ph.D. in Technology Management (TM) program is designed to meet an emerging industry and academic need by offering a quality doctoral program to both part-time and full-time students in two inter-related areas: 1) new technology venturing (e.g., entrepreneurship and corporate venturing), and 2) select current and emerging technologies. The program will encompass an integrated multidisciplinary technology and management approach.

The Ph.D.-TM program is specifically designed to develop interdisciplinary skills and competencies in research and management of technology-dependent enterprises, technology-based entrepreneurship and new product, service and venture creation. While the Ph.D.-TM is housed in the School of Engineering, the Ph.D. degree facilitates and encourages interdisciplinary studies across the School of Engineering and the School of Business and utilizes their complementary research facilities, faculty and lab resources.

The Ph.D. degree is a certification of critical aptitude in scholarship, creativity, knowledge in the discipline, enterprise in research, and proficiency and style in communication. A candidate obtaining a Ph.D. degree must display a thorough understanding in the major areas of Technology Management and must master the necessary tools and techniques so as to be able to make original contributions to the field of Technology Management. An equally important aspect is that of proficiency in oral and written communication skills.

The requirements of the Ph.D. program are: successful completion of preliminary examinations and courses, satisfactory performance in the written comprehensive and oral (proposals defense) examinations, admission to Ph.D. candidacy, successful completion and defense of original work documented as a dissertation, and the satisfaction of additional requirements such as teaching courses, seminars and publications.

The formal degree to be offered is the Doctor of Philosophy in Technology Management. This will be awarded to candidates who complete all the requirements of the Ph.D. degree described later in this section.

Ph.D. in Technology Management Program-Level Learning Objectives
The Ph.D. in Technology Management Program goals are in line with the mission statement of the School of Engineering of the University of Bridgeport. In this regard, the Ph.D. program is designed to provide comprehensive education and research opportunities to a diverse student population consisting of highly qualified and competent students, scholars, industry professionals and researchers in engineering, sciences, and the application and management of technology. The program aims at preparing these highly credentialed individuals for leadership and technology positions in industry, government, and academia with significant contribution to the profession and community locally, nationally, and globally. The program offers an application oriented interdisciplinary curricula to provide a distinctive education in fundamental and emerging disciplines through its faculty and institutional partners while ensuring that the graduates possess creative, innovative, and analytical skills with a strong commitment to research and technical excellence, ethical conduct, and cultural, societal, and global well-being.

Program Goals:
- To prepare highly qualified and competent Ph.D. level scholars, industry professionals and researchers in the advance and interdisciplinary field of Technology Management.
- To prepare Ph.D. level scholars, industry professionals and researchers who are able to conduct research and develop strategies and plans to identify, develop and implement innovative technological based solutions while championing and sustaining innovation initiatives and environments.
- To prepare Ph.D. level scholars, industry professionals and researchers who are able to manage the effective planning and execution of those technology based initiatives and the integration of their impact into the mainstream of an enterprises’ strategy, processes and operations.
- To prepare Ph.D. level scholars, industry professionals and researchers who are able to manage the application of technology to create wealth and economic development as in successful entrepreneurship and/or intrapreneurship or corporate venturing initiatives.
- To develop future leader and managers in technology or technology dependent organizations that are able to lead and motivate high-performance and diversified global teams.

Outcomes Assessment:
There are two types of outcomes that need to be monitored: Institutional Outcomes and Student Outcomes.

Student Outcomes:
1. Familiarity with principles of new venture creation, entrepreneurship, corporate venturing, innovation, and related issues including management, finance, legal issues, new product development, and product commercialization.
2. Familiarity with advanced concepts of methodologies in technology management.
3. Possessing a strong background in one or more engineering and technology area offered in the Ph.D. program.
4. Possessing a strong background in implementing new technology based businesses and ventures.
5. Being able to critically analyze problems and evaluate the benefits of alternative solutions in new technology-based international opportunities and corporate ventures.
6. Being able to work in a development team to address specific issues and problems.
7. Being able to interact and communicate both verbally and in writing with people whose expertise is in different domains and who are located across the globe.
8. Being able to effectively teach in a higher education institution.
Technology Management Ph.D. Program

9. Being able to write quality research papers for inclusion in prominent journals, and research proposals for submission to funding agencies.

10. Being prepared to become a future leader, professional, academic and researcher with interdisciplinary skills, to join the faculty of leading academic institutions or take high level research, consulting and management positions in industry, non-profit organizations, government or start their own ventures.

Admission Requirements
The Ph.D. in Technology Management program is an advanced level program. Students are expected to demonstrate an understanding of fundamental concepts in management and technology gained through appropriate undergraduate and graduate (master) education. Students who are accepted into the Ph.D. program but lack some of those fundamental concepts will be required to remedy their deficiencies through completing satisfactory undergraduate or graduate courses (without graduate credit).

Students admitted to the Ph.D. program should have a business or management degree as well as an engineering, computer science or technology degree. To be more specific, a student should have either an (1) undergraduate Engineering or Technology (STEM* category) and an MBA or MS in Technology Management or Engineering Management or Management of Technology or equivalent degree; or (2) an undergraduate Business or Management or TM or MOT or equivalent and a Master's degree in Engineering, Technology or STEM category, with at least a 3.3 GPA. Three years of industry experience or equivalent is desired. Students admitted from non-English speaking countries, having a Masters degree in engineering and an undergraduate in business or vice-versa will also be required to have a TOEFL score of at least 550 or equivalent (IBT = 80, IELTS = 6.5). The GRE exam is required for admission. Students with an undergraduate and graduate degree in engineering or a STEM category, with three or more years of business experience, may also be accepted into the Ph.D. program. The applicant must submit two letters of reference and a personal statement (containing such information as background; experience, motivation for pursuing the Ph.D. in TM areas and suggested topics for potential dissertation research, etc.)

Interested students in the Ph.D. program without a master's degree must apply and may be admitted into a master's program first, and then upon satisfactorily completing the master's degree, they would be eligible to apply for the Ph.D. program. This route assumes an appropriate Bachelor's degree (see above).

STEM = Science, Technology, Engineering or Math; MOT = Management of Technology.

Please refer to both the General Admissions Information and the Ph.D. TM for detailed requirements. (http://www.bridgeport.edu/admissions and http://www.bridgeport.edu/Phd-TM)

Academic Requirements
The requirements for Ph.D. in TM students include the following:

The Ph.D. in TM is an interdisciplinary degree for which all Ph.D. students must take a common core of five (5) required courses and choose from elective courses from Area 1 (New Technology Venture Creation) and Area 2 (Current and Emerging Technologies – Technology Specializations). Each student can choose elective courses from three study options (see below and Appendix 1). A list and short description of core and elective courses by specialization is provided in Appendix 2.

- Focus on Area 1 – New Technology Venture Creation (e.g. Entrepreneurship and Corporate Venturing): Number of courses to be taken in Area 1 is three courses each from Area 1 and two courses each from Area 2 (in one of the Technology Specializations).
- Focus on Area 2 – Current and Emerging Technologies – (Technology Specializations) Number of courses to be taken in Area 2 is four from Area 2 from one of the following Technology Specialization areas and one from Area 1. The Technology Specialization areas focus on one of the following:
  - Bio-Tech and Bio-Medical Technology, Systems and Processes
  - Information Analytics, Technology and Decision Support Systems
  - Manufacturing, Supply Chain and Logistics Technology, Systems and Processes

- Combination of Areas 1 and 2 – Number of courses to be taken is two each from Area 1 and three each from Area 2. In Area 2, the students must pick courses from one Technology Specialization area for depth coverage.

TIME AND LOAD GUIDELINES
The program will admit both full and part-time students. For all students, the program must be completed within a maximum of seven calendar years. If a student requires more than seven years, he/she must file a letter of appeal requesting a time extension to the Dean of the SOE and the Ph.D. program coordinator. A Ph.D. student (part-time or full-time) is expected to devote the necessary time to courses and research in order to make satisfactory progress toward the degree. Satisfactory progress includes active personal participation in the research and teaching environment of the School of Engineering. The student advisor and dissertation committee should advise the student as to his/her progress in the program. Full time students are required to register for at least nine credit hours each semester while part-time students are required to register for at least six credit hours per academic year (spring and fall semesters).

TIME LIMITS
All requirements for the doctoral degree must be completed within the seven-year period (accumulating to 21 Fall, Spring, and Summer semesters) following admission to the doctoral program.

TIME LIMIT EXTENSION REQUEST
Under compelling circumstances beyond the student's control, a student may petition for a one-semester extension of the seven-year time limit. If the one-semester extension is recommended by the Ph.D. in Technology Management Program Director and approved by the Dean, the student has one additional semester to complete work on the dissertation. If the student fails to complete all degree requirements within the time for the student’s doctoral program or within a one-semester extension approved as noted above, the student will be dismissed from the doctoral program. To complete the doctoral degree, the student...
must reapply for admission. Policies do not provide the option to revalidate courses completed more than six years prior to the date of admission. A readmitted student therefore would be able to apply to the new admission only those courses approved by the department and Graduate School and complete within the prior six years (accumulating to 18 Fall, Spring, and Summer semesters).

COURSE WORK
A Ph.D. candidate must complete at least 30 credit hours of course work, not including the dissertation, beyond the Masters degree. Upper level undergraduate remedial courses cannot be used to fulfill the coursework requirement. The Ph.D. dissertation will require a minimum of 15 credit hours to complete.

Courses must be selected as follows:
1. Five Core Courses of three credit hours each.
2. Additional five (three credit hours each) courses in specific areas**
3. A one-semester teaching practicum requirement (no credit hours).

COURSE GRADE POINT AVERAGE
A Ph.D. student is expected to maintain a G.P.A. of 3.0. If the cumulative G.P.A. falls below 3.0, the student is automatically placed on probation. (Note:grades for transferred courses are not included in the calculation of the University of Bridgeport GPA). Continued probationary status for two semesters will lead to dismissal of the student from the program.

*Students admitted to the Ph.D. program should have a business or management degree as well as an engineering, computer science or technology degree. To be more specific, a student should have either: (1) An undergraduate Engineering or Technology (STEM = Science, Technology, Engineering and Mathematics category) degree and an MBA or MS in Technology Management or Engineering Management or Management of Technology (MOT) or equivalent graduate degree; or (2) an undergraduate Business or Management or TM or MOT or equivalent degree and a Master’s degree in Engineering, Technology or STEM.

** Area 1 – New Technology Venture Creation and Area 2 – Select Current & Emerging Technologies (see Ph.D. Program Structure for additional requirements and areas) No grade less than C is acceptable towards course work requirements.

PH.D. PROGRAM DIRECTOR
The Dean of the School of Engineering will appoint a director for the doctoral program. The director supervises the implementation of the Ph.D. program. S/he is responsible for coordinating administrative functions related to the Ph.D. program including admission, marketing, appointment of advisors, and formation of dissertation committees, for each doctoral student. In addition, the director is charged with preparing and administering the preliminary and the comprehensive examinations. The director is also responsible for recommending courses for students who may not have the proper prerequisites for certain courses.

ADVISOR
Each Ph.D. candidate, in her/his first semester, will be assigned a program advisor by the Ph.D. program director. The advisor will develop a program of study for the student and monitor his/her progress until a dissertation committee is formed for the student. A dissertation advisor will be appointed for each student after he/she passes the comprehensive exams and perform all subsequent advising. The program advisor and dissertation advisor may be the same person or two different people. A student is required to form a dissertation committee in conjunction with the Ph.D. program director after finishing the core Ph.D. courses (and passing the candidacy examinations), so that a better understanding of the various topics and research interests in the department will, by then, have been achieved.

COMPREHENSIVE EXAMINATION
One of the major checkpoints in the Ph.D. program that assesses the breadth and depth of the student’s academic accomplishment and progress is the candidacy examinations and oral dissertation proposal defense examination. The candidacy examinations will test the breadth and depth of knowledge in all aspects of Technology Management related to the body of knowledge required for the Ph.D. in Technology Management, including but not limited to, the core curriculum courses, and the courses in Areas 1 and 2. The candidacy examinations should be taken at the completion of all course work.

The Ph.D. Program Director will organize these candidacy examinations, which will be developed and graded by faculty. The outcome of this examination will be a fail or pass. A student can sit for this examination twice. A student who does not pass the candidacy examinations in two attempts will be dismissed from the program. A student may submit an appeal regarding the potential dismissal from the program.

DISSERTATION COMMITTEE AND ORAL DEFENSE OF PROPOSED DISSERTATION TOPIC IN A PUBLIC SEMINAR
After passing the required examinations and selecting a dissertation advisor (or having an advisor appointed), a student is required to define a problem of merit, carry out a literature search and prepare a course of action to solve the selected problem. The candidate is expected to produce a dissertation proposal, which must be orally defended in a public seminar. The Ph.D. director awards a Pass/Fail grade after consultation with the student’s dissertation advisor and committee.

The Ph.D. Program Director, in consultation with the dissertation advisor, recommends a dissertation committee for the student. The dissertation committee contains at least three members in addition to the dissertation advisor. At least four members of the dissertation committee must be from a professorial rank within the School of Engineering and/or other schools. Additionally, an external examiner is appointed as well. The external examiner is one who is distinguished in the field of Technology Management. The Ph.D. Program Director and the Dean of the School of Engineering must approve the dissertation committee.

ADMISSION TO CANDIDACY
Every student enrolled in the Ph.D. in Technology Management degree program must take a candidacy examination administered by the program director and the graduate faculty. The candidacy exam aims at assessing the capability of the student conducting doctoral research based on evidence of critical thinking, problem solving, conducting original research and other measures viewed as essential func-
tions of a successful doctoral student. When a student passes the candidacy examination and fulfills all other requirements, s/he will be admitted to Ph.D. candidacy.

**Ph.D. Dissertation**

The student is expected to work on the accepted topic and original results. S/he must report the results in the form of a Ph.D. dissertation. The student is encouraged to document the intermediate results in the form of technical reports. S/he is also encouraged to publish these results as they are discovered, in international professional literature, i.e. refereed conference proceedings and journals. Intermediate results can also be discussed in departmental seminars. The completed dissertation must be distributed to the dissertation committee members at least two weeks before the dissertation defense. The committee will read it and certify that the dissertation is a work of substantial merit and that it can be defended.

It is the responsibility of the student that the final draft of the dissertation addresses all legitimate concerns of the committee members.

**Dissertation Defense Examination**

After securing approval from the dissertation committee members regarding the worthiness of the dissertation, a student will proceed with a request for the dissertation defense examination. The chair of the dissertation committee will chair the examination. The student will schedule a convenient time for a public defense. It is the responsibility of the student to find a time that is suitable to all the members of the dissertation committee, at least two weeks prior to the defense. At the end of the defense, the decision of the dissertation committee will be pass or fail. It is the responsibility of the dissertation advisor to see that the comments and the criticism of the audience are addressed adequately in the final version of the dissertation. Based on the recommendation of the dissertation committee, the Ph.D. in Technology Management Director and the Dean of the School of Engineering will recommend the Ph.D. degree, subject to the satisfaction of all other formal requirements.

**Summary of Milestones**

A summary of steps, not necessarily ordered, through which a student will proceed, is as follows:

- Admission to the Ph.D. program of Technology Management;
- Completing prerequisites, if needed;
- Completing the course work requirement for the Ph.D.;
- Passing the written comprehensive examination;
- Admission to ‘Candidacy’;
- Selection of a dissertation advisor;
- Writing a dissertation proposal and its oral defense;
- Formation of the dissertation committee;
- Approval of the dissertation by the dissertation committee;
- Successful completion of the dissertation defense;
- Submission of completed and approved dissertation to the School of Engineering;
- Graduation with a Ph.D. degree in Technology Management.

**New Technology Venture Creation**

Select Elective Course Example

- Leadership, Teams & Managing Change
- New Product Development & Commercialization
- Small Business and Entrepreneurship
- Intellectual Property Management
- Project Management

**Select Current & Emerging Technologies**

**(Technology Specialization)**

- Biotech & Biomedical Technology, Systems & Processes**
- Environmental and Energy Technology, Systems and Processes
- Engineering Economics and Financial Engineering
- Information Analytics, Technology & Decision Support Systems **
- Manufacturing, Supply Chain and Logistics Technology, Systems and Processes**

**(** Initial Technology Specializations to be offered at program start

**Course Requirements**

**Core Courses**

- Exploration in Research Methodologies (TMPD 702)
- Research Design, Analysis and Measurement (TMPD 704)
- Quantitative Methodologies (TMPD 706)
- Technology New Venture Creation (TCMG 645)
- Strategic Management of Technology & Innovation (TCMG 620)
- Comprehensive Written Exams – Both Areas 1 & 2 (TMPD 694)
- Oral Defense of Dissertation Proposal (TMPD 699)
- One semester teaching practice requirement (TMPD 698)
- Completion of one published refereed Journal Paper or 2 refereed Conference Papers (No Credit)
- Ph.D. Dissertation (TMPD 710) (Minimum of 15 Credits)

**Summary & Short Course Descriptions**

**Core Courses for Ph.D. TM Students**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMPD 702</td>
<td>Exploration in Research Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>TMPD 704</td>
<td>Research, Design, Data Analysis and Measurement</td>
<td>3</td>
</tr>
<tr>
<td>TMPD 706</td>
<td>Quantitative Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>TCMG 620</td>
<td>Strategic Management of Technology and Innovation</td>
<td>3 (new course)</td>
</tr>
<tr>
<td>TCMG 645</td>
<td>Technology New Venture Creation</td>
<td>3</td>
</tr>
<tr>
<td>TMPD 694</td>
<td>Written Comprehensive Examinations</td>
<td>0</td>
</tr>
<tr>
<td>TMPD 698</td>
<td>Teaching Practicum</td>
<td>0</td>
</tr>
<tr>
<td>TMPD 699</td>
<td>Seminar (Oral Defense of Dissertation Proposal)</td>
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</tr>
<tr>
<td>TMPD 710</td>
<td>Ph.D. Dissertation</td>
<td>Min. 15</td>
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</tbody>
</table>
Elective Courses that can be taken by Ph.D. or MS Students:

**AREA 1 : New Technology Venture Creation**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>TCGM 505</td>
<td>Global Program and Project Management</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 506</td>
<td>Advanced Program and Project Management</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 508</td>
<td>Foundations of Product Management</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 512</td>
<td>Intellectual Property Management</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 523</td>
<td>Leadership, Teams &amp; Managing Change</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/MEEG 508</td>
<td>Biomechanics</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/ELEG 510</td>
<td>Medical Machines</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/ELEG 513</td>
<td>Biomedical Image Processing</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/TCMG 535</td>
<td>Foundations of Bio Tech Sciences and Management</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/ELEG 547</td>
<td>Bio MEMS</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/TCMG 555</td>
<td>Biotechnology and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/ELEG 562</td>
<td>Nanofabrication with Soft Materials</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/MEEG 563</td>
<td>Polymer Nanocomposites</td>
<td>3</td>
</tr>
<tr>
<td>BMEG 565</td>
<td>Biomedical Materials and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>BMEG/MEEG 567X</td>
<td>Physiological Fluid Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>BMEG 580</td>
<td>Tissue Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 551</td>
<td>Advanced Database Design</td>
<td>3</td>
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Other courses to be approved by Advisor & Program Director

**AREA 2 : Bio-Technology and Bio-Medical Technology, Systems and Processes**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>TCGM/524</td>
<td>Statistical Quality Control Techniques</td>
<td>3</td>
</tr>
<tr>
<td>TCGM/ELEG 530</td>
<td>Foundations of Manufacturing Management</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 534</td>
<td>Strategic Sourcing and Vendor Management</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 512X</td>
<td>Computational Fluid Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ELEG/BMEG 567X</td>
<td>Physiological Fluid Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>TCGM/MEEG 572</td>
<td>Production Technology and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ELEG/TCMG 573</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MEEG/TCMG 574</td>
<td>Principles of Logistics</td>
<td>3</td>
</tr>
<tr>
<td>MEEG 575</td>
<td>Manufacturing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MEEG/TCMG 577X</td>
<td>Lean Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 578X</td>
<td>Six Sigma</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 559</td>
<td>Foundation of Business Process and Operations Management</td>
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</table>

Other courses to be approved by Advisor & Program Director

**AREA 2 : Information Analytics, Technology and Decision Support Systems**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CPSC 546</td>
<td>Services Oriented Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 551</td>
<td>Advanced Database Design</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 556</td>
<td>Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 555</td>
<td>Web-based Application Development</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 562</td>
<td>Information Assurance (Security)</td>
<td>3</td>
</tr>
<tr>
<td>CPSC/CPEG 571</td>
<td>Internet Computing</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 520</td>
<td>Information Systems Development and Design</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 533</td>
<td>Information Technology Strategy and Governance</td>
<td>3</td>
</tr>
<tr>
<td>TCGM/ELEG 540</td>
<td>Simulation and Modeling</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 521</td>
<td>Information Systems and Knowledge Management</td>
<td>3</td>
</tr>
<tr>
<td>TCGM/ELEG 568X</td>
<td>Foundation of Information Analytics</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 571</td>
<td>Foundations of Service Management and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 549</td>
<td>Business Intelligence and Decision Support Systems</td>
<td>3</td>
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</tbody>
</table>

Other courses to be approved by Advisor & Program Director

**AREA 2 : Manufacturing, Supply Chain and Logistics Technology, Systems and Processes**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>TCGM 524</td>
<td>Statistical Quality Control Techniques</td>
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<tr>
<td>TCGM/ELEG 530</td>
<td>Foundations of Manufacturing Management</td>
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</tr>
<tr>
<td>TCGM 534</td>
<td>Strategic Sourcing and Vendor Management</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 512X</td>
<td>Computational Fluid Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ELEG/BMEG 567X</td>
<td>Physiological Fluid Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>TCGM/MEEG 572</td>
<td>Production Technology and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ELEG/TCMG 573</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MEEG/TCMG 574</td>
<td>Principles of Logistics</td>
<td>3</td>
</tr>
<tr>
<td>MEEG 575</td>
<td>Manufacturing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MEEG/TCMG 577X</td>
<td>Lean Manufacturing</td>
<td>3</td>
</tr>
<tr>
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<td>Six Sigma</td>
<td>3</td>
</tr>
<tr>
<td>TCGM 559</td>
<td>Foundation of Business Process and Operations Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Other courses to be approved by Advisor & Program Director
Undergraduate Courses of Instruction
Course of Instruction

Accounts numbered 100-199 are intended primarily for freshmen; courses numbered 200-299, for sophomores; and courses 300-399, for juniors and seniors. Student experience may suggest exceptions are warranted. In those instances, students should consult with their advisors. Deans have authority to approve exceptions.

Some advanced courses are not taught every year but are scheduled in cycles. The University reserves the right to limit the number of students registered in any course and to cancel any course for which there is insufficient enrollment.

Accounting

ACCOUNTING 101
Principles of Accounting I
An introduction to the basic principles of Accounting, and how to account for business transactions. Emphasis on the understanding of how financial statements are prepared, and how they are used as a basis for decision making by business owners, investors, creditors, government and others interested in the financial condition of an economic entity and the results of its operations. Topics include Analyzing Transactions; the Matching Concept and the Adjusting Process; Completing the Accounting Cycle; Accounting for Merchandising Businesses; Accounting Systems, Internal Controls, and Cash; and Receivables. 3 semester hours

ACCOUNTING 102
Principles of Accounting II
A continuation of Accounting 101. Topics include Inventories; Fixed Assets and Intangible Assets; Current Liabilities; Corporations: Organization, Capital Stock Transactions, and Dividends; Income Taxes, Unusual Income Items, and Investments in Stocks; Bonds Payable and Investments in Bonds; Statement of Cash Flows; and Financial Statement Analysis. Prerequisite: Accounting 101. 3 Semester hours

ACCOUNTING 103
Managerial/Cost Accounting
Introduction to Managerial and Cost Accounting used by management in conducting daily operations, planning future operations, and developing overall business strategies. Topics include Process Cost Systems, Cost Behavior and Cost-Volume-Profit Analysis, Profit Reporting for Management Analysis, Budgeting, Performance Evaluation Using Variances from Standard Costs, and Cost Allocation and Activity-Based Costing. Prerequisite: Accounting 101 and 102. 3 semester hours

ACCOUNTING 210
Financial Accounting Systems
Accounting systems for internal control, cash management, accounts receivables, inventories, plant assets, payroll, taxes, and other liabilities. Study of manual and computerized systems. 3 semester hours

ACCOUNTING 220
Intermediate Accounting I
Study of generally accepted accounting principles underlying the preparation of basic financial statements; balance sheet, income statement, and cash flow statement. Emphasis on standards issued by the Financial Accounting Standards Board and reporting requirements of the Securities and Exchange Commission. 3 semester hours

ACCOUNTING 300
Intermediate Accounting II
Study of generally accepted accounting principles relating to accounting for leases, post-employment benefits, deferred taxes and other specialized topics. Emphasis on Financial Accounting Standards Board Statements. 3 semester hours

ACCOUNTING 301
Advanced Accounting
Coverage of selected advanced topics including accounting for investments, accounting for mergers and acquisitions, consolidation procedures, foreign currency transactions and currency translation, segment reporting, and accounting for government and not-for-profit organizations. 3 semester hours

ACCOUNTING 302
Taxation of Individuals
An introduction to the basic principles of federal taxation, with a concentration on taxation of individuals. It provides students with the knowledge to complete individual tax returns. 3 semester hours

ACCOUNTING 308
Taxation of Entities
An introduction to the basic principles of federal taxation, concentrating on the taxation of corporations, partnerships, S Corporations, trusts and estates, and exempt organizations. It provides students with the competencies necessary to complete tax returns for each entity. 3 semester hours

ACCOUNTING 309
Management
Study of generally accepted auditing standards, practice and procedures in the audit of financial statements. Includes study of ethical issues and professional responsibilities of the Certified Public Accountant to investors, creditors and others who rely on the auditor’s opinion when using audited financial statements to make decisions. Prerequisite: Accounting 308. 3 semester hours

ACCOUNTING 310
Financial Accounting Systems
Accounting systems for internal control, cash management, accounts receivables, inventories, plant assets, payroll, taxes, and other liabilities. Study of manual and computerized systems. 3 semester hours

ACCOUNTING 311
Advanced Accounting
Coverage of selected advanced topics including accounting for investments, accounting for mergers and acquisitions, consolidation procedures, foreign currency transactions and currency translation, segment reporting, and accounting for government and not-for-profit organizations. 3 semester hours

ACCOUNTING 312
Taxation of Entities
An introduction to the basic principles of federal taxation, concentrating on the taxation of corporations, partnerships, S Corporations, trusts and estates, and exempt organizations. It provides students with the competencies necessary to complete tax returns for each entity. 3 semester hours

ACCOUNTING 335
Advanced Financial Accounting
Study of generally accepted auditing standards, practice and procedures in the audit of financial statements. Includes study of ethical issues and professional responsibilities of the Certified Public Accountant to investors, creditors and others who rely on the auditor’s opinion when using audited financial statements to make decisions. Prerequisite: Accounting 308. 3 semester hours

Accounting • Art & Design

Art & Design

The Art & Design Department reserves the right to retain selected samples of student work. A minimum of four hours of outside assignments per week is required in Studio Courses.

STUDIO FEES
Most studio courses have a fixed standard materials fee per course. Studio fees listed are subject to change. Consult course schedules for current rates.

ART & DESIGN C101
Art Appreciation
Introduction to theories of value in the arts. Principles of aesthetics as historically applied to plastic and performing arts. Theories of Beauty and their critique in Western and non-Western contexts. Pre-modern, modern and post-modern approaches to the analysis of the arts and architecture. This course may include a studio or performing component. A Core Heritage Course. Prerequisite: ENGL C101 or department permission. 3 semester hours
ART & DESIGN 103

2D Design
Problems in two-dimensional design and the interaction of color; the exploration of the elements of art and their interrelationships; visual and psychological factors involved in two-dimensional design and visualization. Introduces art and design presentation techniques including the portfolio. Emphasizes topics not covered in ADSN 104.
3 semester hours

ART & DESIGN 104
Visual Organization II
Problems in two-dimensional design and the interaction of color; the exploration of the elements of art and their interrelationships; visual and psychological factors involved in two-dimensional design and visualization. Introduces art and design presentation techniques including the portfolio. Emphasizes topics not covered in ADSN 103.
3 semester hours

ART & DESIGN 105
Drawing I
Fundamentals of drawing. Visualizing in two and three dimensions. An introduction to various media techniques and orthographic delineation methods including perspective drawing systems. Use of objects and figures in developing rapid visualization skills. Emphasizes topics not covered in ADSN 106.
3 semester hours

ART & DESIGN 106
Drawing II
Fundamentals of drawing. Visualizing in two and three dimensions. An introduction to various media techniques and orthographic delineation methods including perspective drawing systems. Use of objects and figures in developing rapid visualization skills. Emphasizes topics not covered in ADSN 105.
3 semester hours

ART & DESIGN 108
3-D Design
Fundamentals of three-dimensional design. The investigation of the interrelationships of spaces, planes, and volumes in three-dimensional structures. Materials such as paper, clay, plaster, plastic and wood will be introduced and explored for use in the construction of three-dimensional models. Students will be instructed in the use of model-making tools, equipment and processes appropriate to materials introduced.
3 semester hours

ART & DESIGN 110
Drafting
Introduces basic orthographic drafting techniques and technologies. Presentation and layout techniques used to enhance objects and environments. Introduces the representation of spatial designs including plans, views, elevations/sections, isometrics, axonometrics, perspectives, dimensioning and detail drawing. Provides basic introduction to computer-aided drafting.
3 semester hours

ART & DESIGN 117
Survey of Art History I
The development of visual art from prehistoric civilizations through the Medieval period. Multicultural developments and the changing role of the artist in society will be emphasized.
3 semester hours

ART & DESIGN 118
Survey of Art History II
The development of visual art from the Renaissance through the 20th Century, focusing on the modern role of art and artists in a global context.
3 semester hours

ART & DESIGN 119A, 119B
Introduction to Computer Applications
A survey of the primary image processing, layout, vector graphic and digital presentation software. Color correction, scanning and document set up for desktop publishing output is also covered.
1-6 semester hours

ART & DESIGN 200
Co-op Work Experience
Through the co-op program, the student will be placed in full-time and part-time working positions in art, illustration, graphic design, industrial design and interior design. Prerequisite: 30 semester hours; by arrangement.
1-6 semester hours

ART & DESIGN 203
Typography I
The history, design and execution of letter forms in both analog and digital form are covered. Projects include the development of letter forms from pen and brush to digital font design. The emphasis is on the arrangement of type in design layout and the use of letter forms in an electronic presentation environment. Prerequisite: ADSN 219.
3 semester hours

GRAPHIC DESIGN 204
Calligraphy
This course addresses the origin of the roman alphabet(s), the development of historical letter style categories, manual methods of producing distinctive and beautiful letters and text, various parameters of legibility and readability, methods of utilizing calligraphic and lettering forms in both traditional and innovative ways.
2 semester hours

ART & DESIGN 205
Drawing III
Advanced drawing techniques utilizing a variety of media and subjects. Investigates structure, materials and scale by illustrating and rendering figures, objects and environments. Emphasizes topics not covered in Art & Design 206 such as advanced orthographic drawing techniques. Prerequisite: ADSN 105 and ADSN 106.
3 semester hours

ART & DESIGN 206
Interiors Drawing IV
Advanced drawing techniques utilizing a variety of media and subjects. Investigates structure, materials and scale by illustrating and rendering figures, objects and environments. Emphasizes topics not covered in Art & Design 205 such as production and assembly drawings. Prerequisite: ADSN 105 and ADSN 106.
3 semester hours

ART & DESIGN 207
Illustration I
A basic hands on course for developing a strong technical rendering foundation. An emphasis is placed on creative problem solving and simultaneous technical development. Editorial illustration for books, magazines, and advertising, etc. is the purpose of the course. Prerequisite: ADSN 103, ADSN 104, ADSN 105 and ADSN 106.
3 semester hours

ART & DESIGN 208
Illustration II
Continuation and second level of Art & Design 208 Illustration I. An emphasis is placed on creative problem solving and simultaneous technical development in an electronic environment. Editorial illustration for books, magazines, and advertising, etc for an electronic prepress environment is accompanied with learning advanced paint, photo-maneu-
Art & Design

Ceramics I
A basic approach to functional and sculptural clay modeling and firing techniques. The course exposes students to a variety of techniques used by different cultures from around the globe, both past and present. The course is to develop an appreciation for 3-Dimensional form.
3 semester hours

Sculpture I
Techniques of three dimensional design applied to a variety of materials and used for expressive purposes. Includes figure sculpting and armature construction.
3 semester hours

Painting I
The principles of painting, through a series of visual problems, working from nature. The understanding of pictorial space through control of drawing, value and color. Emphasizes topics not covered in Art & Design 210.
3 semester hours

Painting II
The principles of physical and digital painting through a series of problems uniquely structured for the combination of analog and digital media. The understanding of representation and appropriate presentation methods relative to analog and digital media is the emphasis of the course. Prerequisite ADSN 209, and ADSN 219.
3 semester hours

GRAPHIC DESIGN 212
Introduction to Visual Semiotics
Semiotics (from the Greek semeion ‘sign’). In semiotics, ‘signs’ and symbols may be words, images or anything from which meanings may be generated and used to communicate. The course is an introduction to the analysis, appreciation and reading of broad range of signs and symbols to empower the communication practitioner to expand their visual vocabulary. Myth, Metaphor, Religious Iconography, Advertising and more, will be investigated to establish a communication value. With this added knowledge the students can be a more sophisticated globally aware communicator in their field of practice. The course consists primarily of video and slide screenings, followed by written analysis, reading and discussion. Prerequisite: ADSN 219, and ADSN 249.
3 semester hours

ART & DESIGN 221
Ceramics I
A basic approach to functional and sculptural clay modeling and firing techniques. The course exposes students to a variety of techniques used by different cultures from around the globe, both past and present. The course is to develop an appreciation for 3-Dimensional form.
3 semester hours

ART & DESIGN 223
Sculpture I
Techniques of three dimensional design applied to a variety of materials and used for expressive purposes. Includes figure sculpting and armature construction.
3 semester hours

Print Design III – Advance printing design: Students will create campaigns in a series of projects to cover all aspects of identity design, from business stationary to promotional brochures, packaging design and environmental signage. Techniques for reinforcing a corporate identity will be covered. Prerequisites: GDSN 256 (DS II).
3 semester hours

Graphic Design 305
Studio III
Print Design III – Advance printing design: Students will create campaigns in a series of projects to cover all aspects of identity design, from business stationary to promotional brochures, packaging design and environmental signage. Techniques for reinforcing a corporate identity will be covered. Prerequisites: GDSN 256 (DS II).
3 semester hours

Graphic Design 306
Studio IV
Web Design: Producing and displaying design content for the Web branch of the Internet and adapting that content to the requirements and restrictions of that medium. Students will develop skills in using mark-up languages to make functional and accessible documents for the World Wide Web, develop skills in structuring, linking, and maintaining multiple documents within a web site, and develop skills in incorporating visual elements to enhance information. Prerequisites: GDSN 305 (DS III).
3 semester hours

ART & DESIGN 309
Painting III
Investigation of a variety of media and techniques. Problems emphasizing composition formulation. Emphasizes topics not covered in ADSN 310. Prerequisite: 30 units of Art & Design courses or equivalent and ADSN 209, ADSN 210.
3 semester hours

ART & DESIGN 317
Photography II — Digital & Non Silver, Alternative Photography
This is a studio course for the photographer that is more concerned with the esthetic, process, materials and digital technology to support content. Various methods of photographic representation will be explored, both digital and non-silver for the purpose of presentation and exhibition. Methods will vary from polaroid transfer, cyanotype, gummicro-
mune and digital prints. Prerequisite: ADSN 231 and ADSN 219.
3 semester hours
ART & DESIGN 319
Printmaking I
Introduction to printmaking studio practices including intaglio, lithography, relief, paper making, etc. The course exposes students to a variety of techniques used by different cultures from around the globe, both past and present. 3 semester hours
GRAPHIC DESIGN 355
Portfolio Preparation
Students will prepare their portfolios for both print and web formats. Reworking of previous design to improve for portfolio presentation. Developing new pieces to enhance and broaden the current body of work. Prerequisite: ADSN 306 (DS IV) 3 semester hours
GRAPHIC DESIGN 356
Thesis/Portfolio II
This is an individual statement. The applied knowledge of five semesters of study will support future investigation. The body of work and research should reflect a concentration of study in a chosen area of practice as stated in the thesis proposal, e.g., design, advertising, publishing (www), etc. The student will work with an advisor in the chosen field and thesis teacher for 2 semesters. The focus of the class is to assist the student in developing a critical appreciation of their work through concentrated input from faculty, students and guest critics. The course requires a body of work accompanied by a written statement and slide documentation, as well as a complete portfolio. 3 semester hours
ART & DESIGN 357
Illustration III
Advanced illustration problems and techniques for magazines, advertising, fashion, children's books, newspapers and preparation of a professional portfolio. Media used by illustrators including specialized painting and drawing techniques will be studied with emphasis on the importance of style in contemporary illustration. Various markets will be studied to identify appropriate potential markets for student illustrations. Work with editors and art directors. Deadline development and portfolio preparation for each market type. Emphasizes topics not covered in ADSN 223 and ADSN 219. 3 semester hours
ART & DESIGN 358
History of Modern Art
Global art of the 20th Century with the inclusion of electronic and computer art. Prerequisite: Art & Design 117 and 118. 3 semester hours
ART & DESIGN 376
History of Modern Design
Survey of major design movements of the 19th & 20th Centuries. Studies in the national and international relationship of art and design in such groups as De Stijl and the Bauhaus. 3 semester hours
ART & DESIGN 377
History of the Graphic Arts
Survey of the history of illustration and graphic design, with emphasis on their global application in communications media. 3 semester hours
ART & DESIGN 378
History of Photography
A survey of photographic history from its earliest beginning to the present day. Major photographers, styles, and trends in a social context are covered. The course will also include political, social, and scientific influences on photography, and the role of photography in everyday life. Through slide lectures and class work, students will learn to look at, talk, and write about photographs. Prerequisite: ADSN 117 and ADSN 118. 3 semester hours
ART & DESIGN 379
History of Modern Architecture & Urbanism
Survey of the major movements in architecture and urban planning from the 19th Century to the present. Considers the problems of vernacular architecture, urban design, historicism, functionalism, post-modernism. 3 semester hours
ART & DESIGN 380
History of the Graphic Arts
Survey of the history of illustration and graphic design, with emphasis on their global application in communications media. 3 semester hours
ART & DESIGN 389
Internship
Professional, supervised, unpaid work in an organization related to career goals. Prerequisite: Permission of advisor and School Director. 3 semester hours
ART & DESIGN 398
Independent Study/Special Projects
For the student who desired to specialize in advance projects not covered by the regular course offerings. Individual or group conferences with designated faculty advisor. Prerequisite: Permission of School Director. 1-6 semester hours
ART & DESIGN 408
Selected Topics in Modern Art & Design History
Seminar examining specific topics in the global history of modern art and design such as Dada, Abstract Expressionism, furniture design, performance art, computer & media arts. Prerequisite: 12 semester hours of art history or permission of the instructor. 3 semester hours
ART & DESIGN 425
Advanced Topics I
Advanced undergraduate or graduate level topics with directed or independent study formats. Prerequisite: division approval; advanced standing; 30 semester hours of Art & Design courses or equivalent. By arrangement; 2-10 semester hours.

Industrial Design
INDUSTRIAL DESIGN 107 (IDDSN 107/ITDSN 107)
Product Lab Orientations
This non credit course is required prior to student use of the lab equipment. It is an introduction to the proper operation of equipment and an understanding of the lab rules. Students will gain a respect for the equipment and an understanding and proper equipment practices. Eye protection and other safety protection will be worn at all times while in the lab. 0 semester hours
INDUSTRIAL DESIGN 215
Materials and Manufacturing I
Introduction to ferrous and nonferrous metals and their manufacturing methods, including liquid state, plastic state, and solid state forming; chip and non chip cutting; welding, chemical and mechanical joining; and the finishing process available. Students will develop an individual or group project and complete semester research/project report. 3 semester hours
INDUSTRIAL DESIGN 216
Materials and Manufacturing II
Introduction to thermoset and thermoplastic polymers and elastomers, rubber and other natural engineering materials and their manufacturing methods, including liquid state, plastic state, and solid state forming, chip and
Industrial Design

non-chip cutting, welding, chemical and mechanical joining, and the finishing processes available. Students will develop an individual or group project and complete a semester research/project report.

3 semester hours

INDUSTRIAL DESIGN 217 (IDDSN 217/ITDSN 217)
Computer Aided Drafting
In this course students will learn the basics of computer aided drafting. Students will be expected to complete a tutorial and several assigned projects. A semester report including all projects will be completed.

Three 1 semester hour modules

INDUSTRIAL DESIGN 218A (IDDSN 218A/ITDSN 218A)
Beginning CADD
This course is an introduction to computer aided 3D Modeling. Subjects covered will include Introduction and Interface, drawing 2D shapes, mixing straight lines and arcs, numerical input, generating, viewing and rendering objects, moving rotating, sizing and mirroring objects, and drawing derivative objects. Elementary projects may be assigned, and a semester report may be generated.

2 semester hours

INDUSTRIAL DESIGN 218B
Intermediate CADD
This is an intermediate class in computer aided 3D modeling. Subjects covered will include terrain models, curved lines and meshes, deformations, boolean, trim and stitch operations, and attaching extending and attaching objects. Intermediate projects will be assigned, and a semester report will be generated.

2 semester hours

INDUSTRIAL DESIGN 218C
Advanced CADD
This is an advanced class in computer aided 3D modeling. Subjects covered will include reference planes and their palettes; drafting tools, advanced rendering, export features and animation models. Advanced projects will be assigned and a semester report will be generated.

2 semester hours

INDUSTRIAL DESIGN 255
Industrial Design Studio I
A studio course where elementary product design projects are assigned. Projects will begin with advanced foundation studies, along with simple hand held products, and advance through simple mechanically activated products. Emphasis will be placed on aesthetic development, user requirements, and design for manufacturability. A beginning professional portfolio will be initiated. Prerequisite: Foundation courses and Drafting.

3 semester hours

INDUSTRIAL DESIGN 256
Industrial Design Studio II
Continuation of IDDSN 256

3 semester hours

INDUSTRIAL DESIGN 305
Industrial Design Studio III
A studio course where complex product design projects are assigned. These projects will begin with simple, electrically powered products, and advance through more sophisticated electromechanical products. Emphasis will be placed on aesthetic development, user requirements, and design for manufacturability. Students will be expected to produce a report for each project and for the semester. A professional portfolio will be further developed. Prerequisite: IDDSN 256, IDDSN 218A &B, and IDDSN 309.

3 semester hours

INDUSTRIAL DESIGN 306
Industrial Design Studio IV
Continuation of IDDSN 305.

3 semester hours

INDUSTRIAL DESIGN 309 (IDDSN 309/ITDSN 309)
Human Factors
Analysis of Human anatomy versus function. Recognition, investigation, exploitation of static/dynamic human movements. Relationships of products, systems and environments to the human scale. Ergonomics and motions that relate to the performance of tasks. Students will develop apparatus to provide significant quantitative data. Variety of advanced studies on dynamic interaction of the body and the environment, products, and systems. Study of the relationship of age, sex, and disabilities to human movements. Creative research projects and the development of mechanical/electric test prototypes to collect quantitative data.

3 semester hours

INDUSTRIAL DESIGN 311 (IDDSN 311/ITDSN 311)
Exhibit Design
A course exploring the fields of display and exhibit design including trade shows, fairs, theme exhibits, mobile exhibits, pavilion and museum design, point of purchase, window and showroom design. The student will be exposed to a variety of project experiences including rendered presentations, model making and construction details. Area included will cover special effects, dioramas, crowd flow management, lighting design, acoustics, graphics, signage, subcontract specifications and portfolio techniques unique to the field. Field trips. Prerequisite: ADSN 205, ADSN 206.

3 semester hours

INDUSTRIAL DESIGN 355
Industrial Design Studio V
A studio course where complex product system projects are assigned. Projects will include sophisticated electromechanical products. Emphasis will be placed on research, aesthetic development, user requirements, and design for manufacturability. Project reports will be generated which will include detailed analysis, synthesis, material specification, and complete design documentation. A professional portfolio will be completed. When possible, the student is encouraged to work with other professions like engineering and with corporate sponsorship. Prerequisite: IDDSN 306.

3 semester hours

INDUSTRIAL DESIGN 356
Industrial Design Thesis
A studio course where individual and interdisciplinary group projects of complex product systems are initiated and executed by the student(s). Projects will include sophisticated computer controlled electromechanical products and systems. Emphasis will be placed on research, aesthetic development, user requirements, material specifications, and design for manufacturability. A thesis report will be generated, which will include detailed analysis and synthesis, material specification and complete design documentation, including a set of working drawings and a final model and rendering. A professional portfolio will be completed. Prerequisite: IDDSN 355.

3 semester hours

INDUSTRIAL DESIGN 398
Internship I & II
Summer internship following the Sophomore and Junior years. The student is expected to locate a summer job with the assistance of the ID department. A mutually beneficial job description and expected output will be developed with the participating entity and conveyed to the student. A portfolio of projects
is required. Where confidentiality is required, care will be taken to protect the company, yet provide the student with adequate work examples, including a strong emphasis on CAD/ CAM. Students will develop a project(s) portfolio and complete an intern project report. 1-6 semester hours each

INDUSTRIAL DESIGN 399

Special Projects
This is an advanced studio course for competitions, sponsored projects, and other design projects like furniture and lighting. Students will develop a semester research/project report. 1-9 semester hours

Interior Design

INTERIOR DESIGN 107 (ITDSN 107/IDDSN 107)

Product Lab Orientations
This non credit course is required prior to student use of the lab equipment. It is an introduction to the proper operation of equipment and an understanding of the lab rules. Students will gain a respect for the equipment and an understanding of proper equipment practices. Eye protection and other safety protection will be worn at all times while in the lab.

0 semester hour

INTERIOR DESIGN 200

Co-Op Work Experience
Through the co-op program, the student will be placed in full-time and part-time work positions. Prerequisite: Completion of 30 semester hours; Permission of advisor and School Director; by arrangement.

3 semester hours

INTERIOR DESIGN 215

Interior Construction Systems
Students study architectural systems, details, and building codes. Construction methods and materials of foundations, walls, partitions, floors, ceilings, and roofs are covered, as well as doors, windows, stairs, and fireplaces. Continued study of building components and energy systems. Plumbing, heating, ventilating, air conditioning, acoustics and solar energy will be examined. Students will be able to represent knowledge of systems and substructure details.

3 semester hours

INTERIOR DESIGN 217

Color Studies for Interiors
This course is an extension of 2D principles/

Color Theory. Students are introduced to further color studies and rendering techniques using various media. Additional studies will focus on composition of materials/color boards as visual presentation tools.

3 semester hour modules

INTERIOR DESIGN 218A (ITDSN 218A/IDDSN 218A)

Beginning CADD
This course is an introduction to computer aided 3D Modeling. Subjects covered will include Introduction and Interface, drawing 2D shapes, mixing straight lines and arcs, numerical input, generating, viewing and rendering objects, moving rotating, sizing and mirroring objects, and drawing derivative objects. Elementary projects may be assigned, and a semester report may be generated.

2 semester hours

INTERIOR DESIGN 218B (ITDSN 218B/IDDSN 218B)

Intermediate CADD
This is an intermediate class in computer aided 3D modeling. Subjects covered will include terrain models, curved lines and meshes, deformations, boolean, trim and stitch operations, and attaching extending and attaching objects. Intermediate projects will be assigned, and a semester report will be generated.

2 semester hours

INTERIOR DESIGN 218C (ITDSN 218C/IDDSN 218C)

Advanced CADD
This is an advanced class in computer aided 3D modeling. Subjects covered will include reference planes and their palettes; drafting tools, advanced rendering, export features and animation models. Advanced projects will be assigned and a semester report will be generated.

2 semester hours

INTERIOR DESIGN 255

Studio I
Introductory level course in Interior Design. Application of design theory to commercial and residential interiors. Introduction to human factors, programming, space planning, application of color, form, texture, pattern and aesthetic sensitivity to various interior problems with an emphasis on creativity and innovation. Students will communicate design ideas with a variety of two and three dimensional presentation techniques.

3 semester hours

INTERIOR DESIGN 256

Studio II
Exploration of more complicated problems in commercial and residential interiors with continued emphasis on human factors, space planning, creativity and innovation. Application of knowledge of architectural systems to design solutions. Introduction to multi level spaces, atypical users and barrier free design. Design solutions will be presented using a variety of two and three dimensional skills with continued development of media and presentation techniques.

3 semester hours

INTERIOR DESIGN 303

Materials, Products and Applications
Examination of background finishes and materials from construction and manufacturing processes through measurement and installation methods. Areas covered include floor, wall, and ceiling materials as well as woods, laminates, and glass.

3 semester hours

INTERIOR DESIGN 304

Business Practices and Ethics
Lecture course on business practices and professional ethics as applied to the Interior Design profession. Survey of business types, marketing and selling of services and products, and fee structures will be discussed. Current trends in safety, codes and licensing issues will be explored. Examination and preparation of business forms including contractural agreements, budget estimates, purchase orders, and invoices will be covered in depth and applied to the thesis project. Prerequisite: ITDSN 356

3 semester hours

INTERIOR DESIGN 305

Studio III
Introduction to more difficult Interior problems in both commercial and residential design. Students will work more advanced programming, space planning, circulation problems and human factors. Continued emphasis on creativity and innovative problem solving. Application of architectural and energy systems as well as safety and building codes to design solution. Sensitivity to atypical users and their needs will be expanded. Architectural and design details, materials and finishes will be incorporated in the final design proposal. Prerequisite: ITDSN 265, ITDSN 266.

3 semester hours
INTERIOR DESIGN 306
Studio IV
Continued development of knowledge and skills learned in Interior Design 305 to effectively solve interior design problems in residential and commercial design solutions. Design proposals will be presented Prerequisite: ITDSN 355.
3 semester hours

INTERIOR DESIGN 355
Studio V (Thesis)
Students will develop a thesis project in Interior Design which will highlight their ability to solve complicated design problems creatively while being sensitive to human factors, structure and energy systems, programming, circulation, materials and finishes, design details, custom cabinetry and furniture. The design solution will be presented using a variety of advanced two level and three dimensional techniques. Rationale for solution will be validated by research data. Prerequisite: ITDSN 356.
3 semester hours

INTERIOR DESIGN 356
Studio VI
Course involving extensive work in large office space planning and residential design. Knowledge of interior products and specifications will be incorporated into design solutions. Students will assemble a final portfolio representative of their design education experiences. Prerequisite: ITDSN 356.
3 semester hours

INTERIOR DESIGN 307
Lighting
An introductory course in Lighting for Interior Spaces. What light is, how it can be produced and how the eye perceives it will be examined. Students will learn basic lighting terminology as well as what equipment is available for commercial and residential use and their appropriate applications. The effect of light to create a mood or atmosphere will be explored. Lighting plans for interior spaces will be generated with an emphasis on technical as well as aesthetic concerns.
3 semester hours

INTERIOR DESIGN 309 (ITDSN 309/IDDSN 309)
Human Factors
Analysis of Human anatomy versus function. Recognition, investigation, exploitation of static/dynamic human movements. Relationships of products, systems and environments to the human scale. Ergonomics and motions that relate to the performance of tasks. Students will develop apparatus to provide significant quantitative data. Variety of advanced studies on dynamic interaction of the body and the environment, products, and systems. Study of the relationship of age, sex, and disabilities to human movements. Creative research projects and the development of mechanical/electric test prototypes to collect quantitative data.
3 semester hours

INTERIOR DESIGN 311 (ITDSN 311/IDDSN 311)
Exhibit Design
A course exploring the fields of display and exhibit design including trade shows, fairs, theme exhibits, mobile exhibits, pavilion and museum design, point of purchase, window and showroom design. The student will be exposed to a variety of project experiences including rendered presentations, model making and construction details. Area included will cover special effects, dioramas, crowd flow management, lighting design, acoustics, graphics, signage, subcontract specifications and portfolio techniques unique to the field. Field trips. Prerequisite: ADSN 205, ADSN 206.
3 semester

INTERIOR DESIGN 312
Furniture Design
Students will have an opportunity to do specialized design work in furniture. Exploration of materials, colors, textures, forms, human factors and manufacturing techniques to create uniquely aesthetic and functional solutions to furniture design problems. Students will be required to do free hand and orthographic drawings as well as a variety of three dimensional models from sketch to final prototype. Prerequisite: ITDSN 309.
3 semester hours

INTERIOR DESIGN 362
Construction Documents
Preparation of Construction Documents for Interiors will be covered in depth and applied to the Thesis project. Drawings to be prepared include construction/demolition, electric/telephone, reflected ceiling, floor finishes, applied finishes, panel and post, and furniture plans as well as detail drawing for special construction, custom cabinetry, furniture and millwork. Prerequisite: ITDSN 365.
3 semester hours

INTERIOR DESIGN 398
Internship
Professional, supervised, paid or unpaid work in an organization related to career goals. Students will be required to develop a project portfolio and complete an intern project report. Prerequisite: Permission of advisor and School Director.
3 semester hours

BIOLOGY 100
Biology Study Skills
A course to expose students with limited science backgrounds to basic biochemistry, cell theory, physiology theory, and ecological theory and assist in the development of appropriate learning and study skills. Students will develop writing and presentation skills that will support them as they move into the more detailed basic science coursework required of science majors.
3 semester hours

BIOLOGY 101
General Organism Biology
The course examines the diversity of life in terms of their taxonomy, anatomy, physiology and ecology. Emphasis is placed on variation, adaptation, and evolutionary mechanisms. Prerequisites: Bio 100 or Bio 113, C or better, or instructor's permission. Co-requisites: Math 105.
3 class periods; 1 three-hour laboratory; 4 semester hours

BIOLOGY 102
Cell-Molecular Biology
Students are exposed to the general biological principles that govern all living organisms. Concepts dealt with include origin of life, structure and function of cells at the cellular and molecular level, biochemistry, genetics and evolution. Prerequisites: Bio 100, Chem 113, Math 105, C or better or instructors permission.
3 class periods; 1 three-hour laboratory period; 4 semester hours

BIOLOGY 105
Elementary Microbiology
This course is designed to provide students with an introduction to and overview of the key areas of microbiology for the healthcare professional. The course will cover the struc-
Biology • Business Administration

ture, growth, metabolism and genetics of microorganisms associated with human diseases. The course then covers host-microbe interactions and microbial diseases, and methods of control of infectious agents.
3 class periods; 1 two-hour laboratory period; 4 semester hours

BIOLOGY 211
General Physiology
Physiological and biochemical control and functioning in systems. Laboratory work designed to acquaint the student with basic physiological experimentation, and the interpretation and presentation of data. Required of all biology majors. Prerequisite: Biology 101, 102.
3 class periods; 1 three-hour laboratory; 4 semester hours

BIOLOGY 202
Human Evolution
A three hour studio-type course, integrating the lecture and lab experience. Students will cover the basic principles and mechanisms of micro- and macroevolution and its impacts on the distribution of human populations, human health and human behavior. The class will combine lecture, reading, discussion, independent projects, and hands-on exercises from the biological literature and other disciplines involved in the study of human migration and the evolution of human sociality. Prerequisite: Bio 101 and Bio 102.
3 class periods; 3 semester hours

BIOLOGY 303
Histology
Detailed analysis of the microscopic structure of animal cells and tissues. Laboratory work limited to study of prepared microscopic material. Prerequisite: Biology 102, 211.
3 class periods; 1 three-hour laboratory periods; 4 semester hours

BIOLOGY 307
Genetics
The laws of biological inheritance and their practical application to life; fundamental observations and concepts of classical and molecular genetics from Mendel to modern molecular biology. Topics include basic principles of heredity, chemical nature of the genetic material, genomics, cytogenetics, mutation, gene expression and regulation. Brief consideration of population genetics. Required of all biology majors. Prerequisite: Biology 101-102, or permission of instructor.
3 class periods; 3 semester hours

BIOLOGY 320
Microbiology
Presentation of fundamentals of microbiology. Bacteria, fungi and viruses; their relationships to man, industry, and agriculture. Laboratory study of cultural, morphological, physiological, and genetic properties of representative types. Emphasis on development of technique. Prerequisite: Biology 211 2 class periods; 2 two-hour laboratory periods; and some nonscheduled laboratory work.
4 semester hours

BIOLOGY 321
Cell Physiology
A lecture course exploring the homeostatic mechanisms of the cell. Chemical composition, metabolism, permeability, synthesis and growth. Required of all biology majors. Prerequisite: Biology 211, B or better or instructors permission.
3 semester hours

BIOLOGY 324
Endocrine and Reproductive Biology
A review of endocrine tissues, the hormones they produce, and their mechanisms and interactions with special emphasis on human reproductive endocrinology and physiology. Prerequisite: Biology 211, B or better or instructors permission.
3 semester hours

BIOLOGY 343
Medical Genomics
This course covers the basic biochemistry of proteins and nucleic acids and the techniques used to isolate, quantify, and characterize them. The class focuses heavily on the genomics of disease processes and the techniques used to diagnose and manage them. The course includes both laboratory exercises and review of case studies. Prerequisite: Bio 102.
3 semester hours

BIOLOGY 418
Environmental Health
This course is designed to explore current environmental and public health concerns and issues. Students will gain an understanding of the interaction of individual and communities with the environment, the potential impact on health of environmental agents. The sequence of major topics begins with environmental epidemiology and toxicology, policy and regulation. The course then covers specific agents of environmental diseases. Domains of environmental health are addressed. Prerequisites: Biology 101 and 102.
3 class periods; field trips by arrangement, 3 semester hours

BIOLOGY 441
Immunology
Consideration of the basic principles and concepts of the mechanics of immunity and the relation of immunological phenomena to biological problems. Prerequisite: BIOL 211 or instructors permission.
4 lectures; 4 semester hours

BIOLOGY 443
Molecular Biology
The study of genes and their activity at the molecular level, DNA replication and repair, transcription, translation, recombination, translocation, and mutations. Techniques and experiments leading to important discoveries on DNA will be covered. Required of all biology majors. Prerequisite: BIOL 102, 211, CHEM 205-206.
3 lecture hours; 1 three-hour laboratory period; 4 semester hours

Business Administration

BUSINESS ADMINISTRATION 200
Co-op Work Experience
A paid work experience related to the student's major. Faculty approval required.
0-1 semester hours

BUSINESS ADMINISTRATION 300
Philanthropy
Chemistry

Chemistry 103
General Chemistry I
A study of basic chemical principles and their application. This course is designed for the science and engineering majors and includes theoretical and experimental studies of such topics as composition and structure of matter, stoichiometry, chemical reactions, chemical bonding, gases, atomic and molecular structure, and periodic trends. Prerequisites: 2 years high school mathematics or MATH 105.
3 lecture hours; 1 discussion period; 1 three-hour laboratory period; 4 semester hours

Chemistry 104
General Chemistry II
This course completes the sequence in general chemistry for science and engineering majors. Equilibrium, acids and bases, thermodynamics, nuclear chemistry, introductory organic chemistry. Prerequisites: CHEM 103, MATH 109 or MATH 110 (or 111) or equivalent.
3 lecture hours; 1 discussion period; 1 three-hour laboratory period; 4 semester hours

Chemistry 113
Introductory Chemistry
An introductory course in chemistry for liberal arts and pre-professional students who wish to broaden their general education or feel that their previous preparation was inadequate. Pre-med and science majors are strongly advised to take CHEM 103, although credits may be given for the CHEM 113, CHEM 103, and CHEM 104 sequence.
3 lecture hours; 1 two-hour laboratory or discussion period per week; 4 semester hours

Chemistry 114
Introduction to Biochemistry
After a brief review of general chemistry and an introduction to organic chemistry, the chemistry and biochemistry of carbohydrates, fats, proteins, nucleic acids, vitamins, enzymes, and hormones are studied. Included is an introduction to diseases caused by metabolic disturbances and in-born errors of metabolism. Prerequisite: CHEM 113.
3 lecture hours; 1 two-hour laboratory period per week; 4 semester hours

Business Administration • Capstone Seminar • Chemistry • Computer Applications and Information Systems

Organizations, Endowment Funds and Donor-Advised Funds, and Investing Charitable Donations.
3 semester hours

BUSINESS ADMINISTRATION 382
Internship
Field study of an organization in action. Students can fulfill the course requirements in one of three ways: a) to do an internship in an outside organization or one of the learning institutes within the College, and submit a paper with an analysis of their experiential learning; b) to write a case study with critical evaluation of an organization in action; or c) to develop a new business venture and submit a comprehensive business plan.
3 semester hours

BUSINESS ADMINISTRATION 395
Honors Thesis
Students are expected to write and present a paper to the faculty which demonstrates evidence of research in a field of business studies. The paper should contain the following elements: a) the review of literature of business studies in the field; b) description of new trends of thought, practice and application in the field; the writer’s own assessment of current research.
3 semester hours

BUSINESS ADMINISTRATION 399
Independent Study
An opportunity to specialize in advanced projects not covered by regular course offerings. Students have individual conferences with assigned faculty members and meet several times as a group to discuss findings and common problems.
1-3 semester hours

Capstone Seminar

CAPSTONE 390
Capstone Seminar
The Capstone Seminar is the culmination of learning in the Core Curriculum. As such, it reflectively builds upon learning from the various liberal arts. The course is conducted as a seminar and thus requires substantial reading and informed participation. All students write an original essay that integrates themes raised in course readings and discussions. Prerequisite: Completion of at least 75 semester credit hours and fulfillment of all other Core requirements.

Chemistry

Chemistry 103
General Chemistry I
A study of basic chemical principles and their application. This course is designed for the science and engineering majors and includes theoretical and experimental studies of such topics as composition and structure of matter, stoichiometry, chemical reactions, chemical bonding, gases, atomic and molecular structure, and periodic trends. Prerequisites: 2 years high school mathematics or MATH 105.
3 lecture hours; 1 discussion period; 1 three-hour laboratory period; 4 semester hours

Chemistry 104
General Chemistry II
This course completes the sequence in general chemistry for science and engineering majors. Equilibrium, acids and bases, thermodynamics, nuclear chemistry, introductory organic chemistry. Prerequisites: CHEM 103, MATH 109 or MATH 110 (or 111) or equivalent.
3 lecture hours; 1 discussion period; 1 three-hour laboratory period; 4 semester hours

Chemistry 113
Introductory Chemistry
An introductory course in chemistry for liberal arts and pre-professional students who wish to broaden their general education or feel that their previous preparation was inadequate. Pre-med and science majors are strongly advised to take CHEM 103, although credits may be given for the CHEM 113, CHEM 103, and CHEM 104 sequence.
3 lecture hours; 1 two-hour laboratory or discussion period per week; 4 semester hours

Chemistry 114
Introduction to Biochemistry
After a brief review of general chemistry and an introduction to organic chemistry, the chemistry and biochemistry of carbohydrates, fats, proteins, nucleic acids, vitamins, enzymes, and hormones are studied. Included is an introduction to diseases caused by metabolic disturbances and in-born errors of metabolism. Prerequisite: CHEM 113.
3 lecture hours; 1 two-hour laboratory period per week; 4 semester hours

Chemistry 200
Chem./Co-op
Students who enter the Chem./Co-op Program take this course each semester they are on a paid work assignment with an employer. All work assignments must be approved by the Chemistry Co-op director. A report is required. Prerequisite: At least sophomore standing.
1 semester hour per work-seesemester to a maximum of 6 semester hours

Chemistry 202
Principles of Chemical Analysis
An introduction to the physicochemical behavior of electrolytic solutions, and its application to chemical separations and analyses. Prerequisites: CHEM 103, CHEM 104.
3 lecture hours; 1 three-hour laboratory period; 4 semester hours

Chemistry 205
Organic Chemistry I
Study of aliphatic and aromatic compounds, synthesis, properties, and reaction mechanisms. Laboratory work in techniques, synthesis, properties and typical reactions. Prerequisites: CHEM 103, CHEM 104.
3 lecture hours; 1 three-hour laboratory period; 4 semester hours

Chemistry 206
Organic Chemistry II
Study of aliphatic and aromatic compounds, synthesis, properties and reaction mechanisms. Laboratory work in techniques, synthesis, properties and typical reactions. Prerequisites: CHEM 103, 104, CHEM 205.
3 lecture hours; 1 three-hour laboratory period; 4 semester hours; every semester 1 three-hour laboratory period; 4 semester hours

Chemistry 299
Independent Study
Opportunity for the student to pursue advanced individual study in his field of interest under the supervision of a specialist. Prerequisite: Permission of the instructor and the Department Chair.
Semester hours (1-6) arranged

Computer Applications and Information Systems (CAIS)

Computer Applications and Information Systems 101
Statistics
This course covers basic statistics, including descriptive statistics, probability, discrete distributions, continuous distributions, sam-
Computer Applications and Information Systems • Computer Engineering

aligning, and hypothesis testing. This course is required of all Business students. Prerequisite: Math 105 or Math placement exam at Math 109, or higher.
3 semester hours

COMPUTER APPLICATIONS AND INFORMATION SYSTEMS 102
Applied Statistics
This is a continuation of CAIS 101 and involves searching the Internet, downloading, and analysis of economic data. “Analysis of data” may also include problems from the former MS 110 (Linear Programming). This course is required of all Business students. Prerequisite: CAIS 101.
3 semester hours

COMPUTER APPLICATIONS AND INFORMATION SYSTEMS 191
Computer Concepts
This course provides elementary instruction in basic productivity packages, like Microsoft’s Office 97. It is for those students with no prior exposure to computer applications.
3 semester hours

COMPUTER APPLICATIONS AND INFORMATION SYSTEMS 201
Intro to CAIS
This course covers computer and systems hardware, operating systems, application development, the value of information, databases, networks, and their integration and management within the modern firm. This course is required of all Business students. Prerequisite: CAIS 102.
3 semester hours

Computer Engineering

COMPUTER ENGINEERING 200
Undergraduate Co-op/Internship in Computer Engineering
By arrangement.
1-3 semester hours

COMPUTER ENGINEERING 210
Digital Design I
Basic digital design principles. Boolean algebra. Combinational logic design with gates, MSI, LSI. Sequential logic design; register, counters, memory and programmable logic. Prerequisite: Mathematical sophistication.
3 semester hours

COMPUTER ENGINEERING 286
Introduction to Microprocessors
Theory and application of microprocessors, and associated peripheral devices such as memory, ports, clocks, system design and debugging techniques, including specific design problems using existing devices. Programming aids, including assemblers and simulators. Programming problems including peripheral device service routines and arithmetic operations. Information structures for real-time data acquisition systems. Prerequisite: Computer Engineering 210 and Computer Science 102.
3 lecture hours; 1 three-hour laboratory; 3 semester hours

COMPUTER ENGINEERING 308
Operating Systems
Structure and design issues in modern operating systems. Topics may include OS structure; Threads, CPU scheduling and synchronization; and communication between processes. Deadlock management; main and virtual memory management; file management; file system interface; I/O structure. Prerequisite: Computer Science 102, Computer Engineering 312.
3 semester hours

COMPUTER ENGINEERING 312
Computer Organization
Organization of computer systems. Central processing unit; micro programmed control; input/output organization; interrupts; traps; direct memory access; arithmetic operations; main memory. Prerequisite: Computer Engineering 315.
3 semester hours

COMPUTER ENGINEERING 315
Digital Design II with Laboratory
Design of complex digital systems; top-down design and modularization. Implementation of controllers. Use of hardware design languages (VHDL) to implement systems. Rapid prototyping. Fault tolerant design. Prerequisite: Computer Engineering 210. Laboratory includes implementation of digital systems using FPGAs.
3 lecture hours; 4 semester hours; 1 three-hour laboratory

COMPUTER ENGINEERING 347
Logic Synthesis Using FPGAs
Logic design using textual design entry, VHDL. Behavioral, structural and data flow descriptions. Technology-dependent vs. technology-independent design. CPLD, SEAM and antifuse technologies. Rapid prototyping and retargeting designs. A major design project. Prerequisite: Computer Engineering 315.
3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 348
Introduction to VLSI Design
Design and implementation of a very large scale integrated circuits. CMOS and BiCMOS technologies, basic topological structure of ICs. Clocking characteristics, resistance, capacitance and power estimation, system-level design and implementation issues. Custom layout and verification using CAD tools. Synthesis of designs from VHDL descriptions. Term project will include the design and testing of an integrated circuit. Prerequisites: Computer Engineering 315 and Electrical Engineering 348.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 349 A
Senior Project
Major open-ended design project to integrate student’s knowledge of hardware and software. Formulation of design specifications, use of design tools, feasibility considerations. Prerequisites: Computer Engineering 312, 387, Engineering 300, English 204, Integrated Studies C101 and senior status.
1 semester hours

COMPUTER ENGINEERING 349 B
Senior Project
Major open-ended design project to integrate student’s knowledge of hardware and software. Formulation of design specifications, use of design tools, feasibility considerations. Prerequisites: Computer Engineering 312, 387, Engineering 300, English 204, Integrated Studies C101 and senior status.
3 semester hours

COMPUTER ENGINEERING 371
Data and Computer Communications
3 lecture hours, 3 semester hours
Computer Engineering • Computer Science

COMPUTER ENGINEERING 387
Embedded System Design
Design of systems having major hardware and software components. Software implementations are used to control specific hardware such as micro controllers. Major laboratory emphasis to realize embedded systems. Prerequisite: Computer Engineering 286. 3 semester hours

COMPUTER ENGINEERING 389
Software Engineering
Structural development and methodology for large software systems. Planning requirements, design, test and validation. Advanced topics in software development. Prerequisites: Computer Science 102 and senior status. 3 semester hours

COMPUTER ENGINEERING 399
Independent Study in Computer Engineering
Independent study of advanced topics in Computer Engineering and submission of project report as required. Problem assignment to be arranged with and approved by the Department Chair. Open only to qualified seniors 3 semester hour

Computer Science

COMPUTER SCIENCE 101
Introduction to Computing I
Introduction to high level languages, data types, subprograms, arrays and records, top-down programming. Algorithmic development and flow charting. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 102
Introduction to Computing II
Introduction to data structures. Top-down design and structured programming, debugging, String processing, stacks, queues, lists, linked lists, trees, hash tables. Searching and sorting. Prerequisite: CPSC 101. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 200
Undergraduate Co-op/Internship in Computer Science
By arrangement. 1-3 semester hours

COMPUTER SCIENCE 201
Data and File Structures
Advanced treatment of data structures and file structures including manipulating data stored in the file systems. Topics include fundamentals of file processing operations, secondary storage characteristics, and managing files of records. Additional topics will include performance file organization, sorting large files, multi-level indexing, 2-3 Trees, B-Trees, and Hashing and Extendable Hashing. Prerequisites: CPSCI02 and CPSC 102a. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 203
Second Language Course
A class for computer science majors to broaden the programming background. Students will take a course in a language other than the current teaching language. This class is not an actual course, but a number of departmental course offerings may satisfy this requirement. Courses which may be taken will include computer science offerings which assume programming competency (CPSC 101 and CPSC 102 equivalent) in the instructional language. The department will announce courses which qualify for satisfaction of CPSC 203 requirement. Prerequisites: CPSC 102 and CPSC 102a. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 227
Discrete Structures
This course is an introduction to some of the discrete mathematical structures relevant to computer science, including set theory, propositional calculus, predicate calculus, algebraic operations and relations, counting techniques, and graph theory. Prerequisite: MATH 109. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 230
Economics and Management of Computing Projects
The design process, engineering economics, project planning and ethics in engineering practice. A required course for all Computer Science majors, normally taken in the junior year, offered both semesters. Prerequisites: CPSC 102, 102a, MATH 215, PHYS112 and junior standing. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 231
Programming Languages
This is a second computer language course organized around the concepts of data objects, data types, abstraction mechanisms, sequence and data control, storage management, syntax, and operating environments. Several widely used programming languages are analyzed to illustrate these concepts. Prerequisite: CPSC 201. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 302
Object-Oriented Programming Using C++
This course introduces the modern object-oriented programming philosophy using C++ to the beginning graduate students. The emphasis is on developing the programming thought process in terms of objects and their interactions to each other. Concepts covered include data hiding, code reuse through inheritance, polymorphism, templates, exception handling, developing appropriate class hierarchy, and code maintenance for large software projects. Prerequisites: CPSC 102 or equivalent background. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 310
Theory of Computation
Elements of the theory of formal languages, grammars, finite state machines, computability, primitive recursive functions, Turing machines and computation. Prerequisite: CPSC 227. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 320
Structure and Interpretation of Computer Programs
Procedures and data both primitive and compound. Iteration and recursion. Abstraction of data and procedures. Sequences and trees. Manipulation of lists. Data-directed programming, dispatch on type, message passing. Object-oriented programming. Local state and environment diagrams. Streams. Prerequisite: CPSC 201. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 325
COMPUTER SCIENCE 329
Fundamentals of Algorithms
This course aims to develop an understanding of the process by which an algorithm is developed to solve a problem and how it is translated into a working computer program. Emphasis is placed on problem-solving approaches and efficient programming techniques. Topics covered are: data structures, stacks, lists, trees, search algorithms, introduction to parsing and sorting techniques; structures programming; interactive and recursive programming, analysis of algorithms and special purpose algorithms. Prerequisite: CPSC 201, 227.
3 lecture hours, 3 semester hours

COMPUTER SCIENCE 340
Windows Programming
This course covers Graphical User Interface (GUI), design and Windows programming using Visual C++ and Microsoft Foundation Class (MFC) library. Topics covered include windows architecture, message/event driven programming, designing Dialog based, SDI and MDI applications, Document/View architecture, Device Contexts, Database access using the MFC ODBC classes and ADO. A comprehensive project is assigned towards the end of the course, which covers important Windows programming concepts. Prerequisite: CPSC 400.
3 lecture hours, 3 semester hours

COMPUTER SCIENCE 349 A
Senior Design Project
Student will initiate and complete a project that meets career interests and objectives. One or more faculty will be available to each student in a consulting capacity. The department chair must approve an outline of the project in the semester prior to registration for this course.
1 semester hour

COMPUTER SCIENCE 349 B
Senior Design Project
Student will initiate and complete a project that meets career interests and objectives. One or more faculty will be available to each student in a consulting capacity. The department chair must approve an outline of the project in the semester prior to registration for this course.
3 semester hours

COMPUTER SCIENCE 350
Data Base Design
Survey of data structures used in data bases; relations; hierarchical and network data models; theoretical issues in data base processing; practical issues in data base design, programming, and implementation. Prerequisite: CPSC 329.
3 lecture hours, 3 semester hours

COMPUTER SCIENCE 399
Independent Study in Computer Science
Independent study of advanced topics in Computer Science and submission of project report as required. Problem assignment to be arranged with and approved by the Department Chair.
Open only to qualified seniors
3 semester hours

Dental Hygiene

DENTAL HYGIENE 100
Introduction to Dental Hygiene
This course provides the opportunity to develop basic knowledge of the dental hygiene profession and the responsibility of licensure. Students will learn the role of the dental hygienist in total patient care.

DENTAL HYGIENE 123
Oral Anatomy and Embryology
This course is an introduction to the study of the oral cavity and its associated structures. Included in the curriculum are lectures covering anatomy, embryology and histology of oral structures and the head and neck, emphasizing teeth and their supporting tissues. Knowledge of content is emphasized during clinical practice.
4 lecture hours, 4 semester hours

DENTAL HYGIENE 124
Dental Radiology
This course provides the fundamental scientific principles upon which clinical dental radiology is based. Content includes radiation history, radiation physics, radiographic anatomy, application to radiation safety for patient and operator, quality assurance, infection control practice, standard intra and extra oral radiographic techniques, quality film production and film evaluation.
2 lecture hours, two-hour laboratory periods; 3 semester hours

DENTAL HYGIENE 127
Pharmacology for the Dental Hygienist
General principles of pharmacology and use of pharmaceuticals; derivation and effect of drugs, especially those used in dentistry. Values and uses of chemical sterilizing agents, pre-and post-operative medications, anesthetics, antibiotics, and other pharmaceutical adjuncts to oral hygiene and dental care.
2 lecture hours, 2 semester hours

DENTAL HYGIENE 129
Clinical Practice I
Introduction to the role and function of the Dental Hygienist in preventive dentistry, history and ethics of the Dental Hygiene profession; relationship of general and oral health to the disease process. Clinical hours are devoted to development of: infection control procedures, oral self care, basic clinical skills of patient assessment/data collection, basic instrumentation, patient education and dental emergencies.
3 lecture hours, 7 clinical hours, 4 semester hours

DENTAL HYGIENE 130
Clinical Practice II
This course is a continuation of Clinical Practice I and focuses on the role of the Dental Hygienist as a preventive oral health specialist. Didactic and clinical experience is devoted to patient assessment, treatment planning, patient management, fluoride therapy, emergency response protocols, and continuing development of clinical skills to facilitate ethical and total patient care. Prerequisite: Successful completion of DHYG123, DHYG124 and DHYG 129.
2 lecture hours, 8 clinical hours, 4 semester hours

DENTAL HYGIENE 140
Introduction to Periodontology
This course provides the basic principles of periodontology, which covers the recognition of clinical characteristics of the periodontium, classification of periodontal diseases, role of microorganisms and local factors in the etiology of periodontal diseases.
1 semester hours

DENTAL HYGIENE NUTRITION 204
Nutritional Biochemistry
This course will teach the basic principles of the science of human nutrition and nutritional biochemistry with an emphasis on the effects of nutrition on dental health. The focus will be on the roles of micro- and macronutrients and the importance of proper energy balance, digestion, absorption and metabolism of these
Dental Hygiene

nutrients. Correlations to dental hygiene are discussed at each class as it obtains to the weekly subject matter. Strategies of counseling patients to improve optimum oral health are taught throughout the course.

3 credits

DENTAL HYGIENE 227
Clinical Practice III
This course provides students the opportunity to expand on the basic dental hygiene skills learned in Clinical Practice I and II (DHYG 129 and 130) providing students with a practical and treatment oriented study of the oral manifestations of systemic diseases. Students will learn advanced instrumentation techniques and deliver comprehensive dental hygiene services in the Fones Dental Hygiene Health Center as well as in the community setting. The community setting will provide the students the opportunity to interact with a variety of patient populations. Evidence-based decision making will be a common theme throughout the semester. The student will utilize the dental hygiene process of care by assessing clinical information and external research to implement and evaluate the dental hygiene treatment care plan; applying the ADHA Standards of Clinical Dental Hygiene Practice. Prerequisite: Successful completion of all first-year required courses. 2 lecture hours, 14-21 clinical hours per week; 5 semester hours

DENTAL HYGIENE 228
Clinical Practice IV
Continuation of advanced didactic and clinical practices of Dental Hygiene 227. This course will assist the student in refining competence in all clinical procedures, developing variety of experiences of oral health and disease, and assimilate knowledge in order to use responsible decision-making and critical analysis that assures the health of the patient. The student will be introduced to professional ethics and dental jurisprudence, professional organizations, professional goals, state dental practice acts, and issues facing the dental hygiene profession. The student will expand self-assessment skills and evaluation of scientific literature as the basis for lifetime learning. Prerequisite: Successful completion of DHYG 227, 230, 233, 241, 250. 2 lecture hours, 14-21 clinical hours per week; 5 semester hours

DENTAL HYGIENE 230
Local Anesthesia
DHYG 230 Local Anesthesia for the Fones Dental Hygiene Students. This course is designed to prepare the student dental hygienist to qualify to administer local anesthesia and receive a certificate in local anesthesia acceptable in the State of Connecticut. The student will be introduced to safe, effective administration of local anesthesia through lecture, laboratory and clinical settings. The comprehensive course areas will include rational for pain management, client management, medical emergencies and review of essential anatomy, physiology, and pharmacology of pain control agents. In addition, the student will perform efficient techniques of pain management through local anesthesia on clinical partners under the direct supervision of clinical faculty. 1 semester hour

DENTAL HYGIENE 232
Dental Public Health
Dental Public Health consists of didactic and field work components in community services. It is designed to enable Dental Hygiene students to identify Dental Hygiene career opportunities within the public health setting; describe the structure and function of public health; explain federal, state and local legislation, policies and procedures pertaining to public health; assess the dental needs and demands of the public including special populations; and plan and evaluate dental health care programming. Prerequisite: Successful completion of all first year required courses. 2 lecture hours; 72 hours of field experience per rotation; 4 semester hours

DENTAL HYGIENE 233
Oral and General Histo-Pathology
This course will provide the dental hygienist with an in-depth discussion of various types of oral diseases of the hard and soft tissues. Emphasis will be placed on the etiology, clinical picture, radiographic picture, histologic/microscopic findings, pathogenesis, treatment and prognosis for each condition discussed. Some systemic conditions with specific oral findings will also be covered. Prerequisite: Successful completion of all first year required courses. 3 semester hours

DENTAL HYGIENE 241
Periodontology
This course expands on the basic principles of periodontology introduced during the first year Dental Hygiene curriculum. Students receive a sound foundation in the history and management of periodontal diseases including the etiology and pathogenesis of periodontal diseases, the systemic disease connection with periodontal disease, the role of the immune system in the disease process and the various periodontal treatment modalities available with emphasis on the Dental Hygiene treatment plan. Prerequisite: Successful completion of DHYG 140. 2 semester hours

DENTAL HYGIENE 250
Dental Materials
This course provides didactic and clinical information relating to dental materials utilized in the dental office. Content includes: terminology, basic principles, properties of materials, techniques and procedures, recognition of restorations and indications for their use. Students will also gain exposure to expanded auxiliary utilization, and the role of the Dental Hygienist in specialty practice. Prerequisite: Successful completion of all required first year Dental Hygiene courses. 2 lecture hours; 1 two-hour laboratory period; 3 semester hours

DENTAL HYGIENE 299
Dental Hygiene Independent Study
Selected independent projects conducted under the supervision of a Dental Hygiene faculty member. 1-6 semester hours

DENTAL HYGIENE 301
Dental Hygiene Practice Management
Through discussion of legal, regulatory, and ethical issues governing dental healthcare, the student will develop strategies to provide optimum client care and understand the Dental Hygienist role within an interdisciplinary healthcare team. Appreciation for the role of administrator / manager is obtained through lecture content and group activities focused on the development of communication, teamwork, personnel, business, and patient management skills. These skills are necessary to prepare for emerging practice models in dental healthcare. 3 Semester hours
DENTAL HYGIENE 302
**Instructional Strategies for the Health Professional**
Assessment, planning, implementation and evaluation of various instructional methodologies/strategies to facilitate presentations. Fundamentals of instructional theory with practical skill applications.
*2 lecture hours; two-hour observation/presentation; 3 semester hours*

DENTAL HYGIENE 303
**Advanced Clinical Concepts**
Advanced Clinical Concepts expands upon the basic knowledge and skills utilized in the dental hygiene process of care. Students are introduced to advanced clinical concepts through evidence based practice methods. Oral medicine, advanced periodontology, pain management, and current research and technologies are emphasized.

DENTAL HYGIENE 304
**Dental Hygiene Internship**
This course will provide the Dental Hygiene student with the opportunity to apply the knowledge and skills acquired throughout the dental hygiene curriculum in an internship experience. Under the guidance of the course instructor the dental hygiene student intern will select a field site in an alternative practice setting (not private practice). With the help of the site’s primary mentor the intern will set goals and objectives that will allow them to become an integral member of the organization. The internship will consist of direct observation, participation and supervised teaching or fieldwork. Prerequisite: DHYG 302.
*By arrangement; 3-6 semester hours*

DENTAL HYGIENE 305
**Dental Hygiene Research I**
This course will introduce students to the fundamentals of research design and process. It will enable Dental Hygiene students to develop skills in the analysis of research findings and the evaluation of dental issues through critical analysis. Students will also gain exposure to the development of research protocols and develop an original research proposal. Prerequisite: DHYG 302
*3 semester hours*

DENTAL HYGIENE 306
**Dental Hygiene Research II**
This course is designed to familiarize Dental Hygiene students with evolving professional trends related to private or public practice. Students, working in groups of two or three, will utilize and reinforce acquired Dental Hygiene research concepts while developing advanced assessment, planning implementation and evaluation skills, original research will be implemented. Required of all candidates for a Bachelor of Science degree in Dental Hygiene. Prerequisite: DHYG 302, DHYG 305 and senior status.
*4 semester hours*

DENTAL HYGIENE 315
**Statistical Reasoning**
This course will provide a basic overview of statistical analysis and how certain tests can be performed to determine if there is a statistically significant relationship between variables. The student will receive an introduction to the use of statistical software for data analysis.

**Economics**

ECONOMICS 301
**Principles of Economics I — Macro**
Analysis of basic concepts; national income, employment, monetary and fiscal policy and economic growth.
*3 semester hours*

ECONOMICS 302
**Principles of Economics II — Micro**
An analysis of price, output, income distribution, market structures and international trade.
*3 semester hours*

ECONOMICS 311
**Managerial Economics**
The theoretical analysis of the behavior of the consumer and the firm. Problems of income distribution, welfare economics, and general equilibrium analysis. Prerequisites: ECON 201 and ECON 202; junior or senior status.
*3 semester hours*

ECONOMICS 375
**International Business Economics**
A basic model of the international economy. International macroeconomic theory is examined using a set of economic flow diagrams. Examination of issues including interest rates, exchange rates and asset prices in the global economy; causes and consequences of trade deficits; effects of monetary policy; debate on IMF and World Bank reform; globalization of financial markets; Intensive use of the Web and Internet resources to retrieve and analyze data. Prerequisites: ECON 201 and ECON 202; junior or senior status.
*3 semester hours*

ECONOMICS 376
**Business Forecasting**
Macroeconomic forecasting to improve asset allocation and investment performance over the business cycle. Examining and forecasting the behavior of stock, bond, commodity and currency prices. Forecasting tools to analyze the economy and forecast price movements in the financial markets. Prerequisites: ECON 201 and ECON 202; junior or senior status.
*3 semester hours*

**Electrical Engineering**

ELECTRICAL ENGINEERING 210
**Digital Design I**
This course introduces students to the basics of digital logic and digital systems design. It covers basic digital design principles; Boolean algebra, combinational logic design with gates, MSI, LSI, Sequential logic design; register, counters, memory and programmable logic. Students are also exposed to Verilog HDL throughout this course for fundamental simulation concepts. Verilog simulation projects are performed using commercial and/or academic CAD tools.
*3 semester hours*

ELECTRICAL ENGINEERING 233
**Network Analysis I**
*3 semester hours*

ELECTRICAL ENGINEERING 234
**Network Analysis II**
*2 semester hours*
ELECTRICAL ENGINEERING 235
Network Analysis I Lab
Use of resistor networks and DC voltage sources in various configurations; measurements of current flow and voltage difference. Introduction to RLC circuits in steady AC conditions. Familiarization with standard laboratory instruments. Co-requisite: ELEG 233.
1 three-hour laboratory, 1 semester hour

ELECTRICAL ENGINEERING 236
Network Analysis II Lab
Steady state and transient analysis of RLC circuits. Typical series and parallel resonance circuits are examined and their parameters experimentally determined; two pole network analysis; transformers; frequency response plots. Extensive use of the oscilloscope. Pre-requisite: ELEG 235. Co-requisite: ELEG 234.
1 three-hour laboratory, 1 semester hour

ELECTRICAL ENGINEERING 315
Optical Communications
This course will provide a practical introduction to the basic principles of optical fiber systems and networks. The course will emphasize the physical properties and operation of components that comprise optical system (fiber, semiconductor lasers, photodetectors, etc.). The basic elements of optical network operation will also be described. The material will cover a broad number of topics to allow the student to understand the underlying principles of the field and to be prepared for more detailed study in the form of advanced courses and/or research.
3 lecture hours; 3 semester hours

ELECTRICAL ENGINEERING 316
Optic Fibers Lab
Hands-on experience with fiber optic hardware: Fiber properties, sources, detectors, splices, connectors. Design and test fiber optic transmitter and receiver circuits for both analog and digital transmission. The experiments are related to optical fiber properties, losses, sources, detectors, splices, connectors, measuring the speed of the opto-electronic devices, design and test of fiber optic transmitter and receiver circuits for both analog and digital transmission, and design of a complete system.
3 semester hours

ELECTRICAL ENGINEERING 317
Introduction to Control Systems
At the end of this course, students will be able to: Derive the models for basic physical systems. Analyze the steady-state and transient behavior of basic feedback systems. Determine stability and performance of feedback systems using time-domain and frequency domain analysis methods. Design PID and lead-lag controllers to achieve design specifications. Perform basic simulation to verify system stability and performance.
3 lecture hours; 3 semester hours

ELECTRICAL ENGINEERING 333
Signal and Systems
Students learn to analyze theoretically and by computer both continuous and discrete signals and the application of each to real-world problems. Applications involve the definition of a system, defined either by a Laplace or z-transform and the output of same to the application of any input signal.
3 lecture hours; 3 semester hours

ELECTRICAL ENGINEERING 334
Energy Conversion
Comprehend the engineering fundamentals of various types of fuel/photovoltaic cell systems, system design and integration issues, and system evaluation and economic analysis. Apply the energy system fundamentals and analysis to address the key issues in design and integration of various AET systems, in particular solar heating and photovoltaic, fuel cells. Gain knowledge and skill to apply systematic and structured methodology to economically implement AE systems. To equip students with knowledge and skills enabling them to provide engineering services in planning, designing, and constructing hydrogen infrastructure components and systems.
3 semester hours

ELECTRICAL ENGINEERING 335
Digital Design II
This course familiarizes students with the design of complex digital systems; mainly top-down design and modularization, Implementation of controllers, Use of hardware design languages (Verilog/VHDL) to implement systems, Rapid prototyping, and Fault tolerant design. The lab includes implementation of digital systems using FPGAs.
3 semester hours

ELECTRICAL ENGINEERING 336
Analog Electronics Lab I
This is a hands-on analog circuit design lab. You will combine integrated circuits and discrete electronic components to design practical analog circuits for day-to-day industry use.
3 semester hours

ELECTRICAL ENGINEERING 337
Analog Electronics Lab II
This course focuses on designing of BJTs and FET’s amplifiers. Students focus on design parameters such as gain, frequency response and matching impedance. Students develop in-depth understanding of theory of electronic devices and circuits through practical experiments.
3 semester hours

ELECTRICAL ENGINEERING 338
Fundamentals of MEMS (Microelectromechanical Systems)
MEMS (Microelectromechanical Systems) refers to devices and system with extremely small size in the range of microns (1μm=10-6m). It is one of the most important high technologies developed in 20th century. MEMS and nanotechnology are believed to trigger the next wave of technology revolution. This course covers the fundamentals of MEMS technology. The topics include MEMS materials, MEMS fabrication techniques, MEMS structure analysis, MEMS sensing and actuation techniques, MEMS applications (inertial MEMS, MOEMS, BioMEMS, RFMEMS), signal sensing techniques for MEMS, MEMS packaging and reliability, etc.
3 semester hours

ELECTRICAL ENGINEERING 339
Electronics
Application of diodes, bipolar transistors (BJT) and field effect transistors (FET) to signal amplification and switching. Computer Simulation. Pre-requisite: ELEG 235. Pre-requisite: ELEG 235.
3 semester hours; 3 semester hours

ELECTRICAL ENGINEERING 340
Senior Project
Student work for approximately 150 hours performing research work within the department of Electrical Engineering. Emphasis is
Electrical Engineering • English

on good technical writing and imaginative design of solutions to a given problem.
3 lecture hours; 3 semester hours

ELECTRICAL ENGINEERING 361
Controls Lab
Laboratory study of feedback control systems with experiments analyzing different types of
plants, transducers and control techniques; emphasis on real-time computer control.
3 semester hours

ELECTRICAL ENGINEERING 370
RF (Radio Frequency) Communications:
Spectral analysis; modulation and demodulation system analysis, including AM, FM, pulse
modulation and transmission of digital information. Signal design and system consider-
3 semester hours

ELECTRICAL ENGINEERING 383
Digital Integrated Circuits
This course is designed to explore the area of the operation and design of Digital ICs
including TTL, ECL, NMOS and CMOS manufacturing technologies. Other topics include
comparison regarding the voltage transfer characteristics, propagation delay, fan-out,
noise margins, power dissipation, and a description of Random Access Memory (RAM)
and Read-only Memory (ROM).
3 semester hours

ELECTRICAL ENGINEERING 387
Embedded Systems Design
The objective of this course is to teach students the basic principles of designing smart
microcontroller-based systems within the framework of a commercial microcontroller
family.
3 semester hours

ELECTRICAL ENGINEERING 388
Analog Integrated Circuits
The objective of this course is to introduce the principles of analog circuit design and to provide
level analog design knowledge required by the IC design industry. The following top-
ics are covered: models for integrated circuit active devices, bipolar and MOS integrated
circuit technology (self study), basic and two-transistor amplifier, transistor current sources
and active loads, output stages operational amplifiers, frequency response, feedback and
stability of feedback amplifiers. The Student is expected to attend all of the scheduled
classes. If for some reason the student cannot make a class the Instructor should be con-
tacted in advance, if possible, to arrange to turn in the homework and to get assignment
for following class. The course will include one project, two exams and a comprehensive
final. Makeup exams will be given if a satisfactory excuse for missing the exam exists.
3 semester hours

ELECTRICAL ENGINEERING 399
Independent Study in Electrical Engineering
Independent study of advanced topics in Electrical Engineering. Problem assignment to be
arranged with and approved by the department.
3 semester hours

English

Unless specifically stated in the course
description, the only prerequisite for any
undergraduate English department course is
the fulfillment of the freshman composition
requirement.

Composition

ENGLISH 010A
English Communication
The goal of this course is to improve your
English communication skills. The emphasis
will be on improving pronunciation, listening
comprehension, and conversation. There will
be listening exercises, group discussions, and
class presentations, as well as some writing
assignments. This course depends on good technical writing and imaginative
design of solutions to a given problem.
3 semester hours

ENGLISH 100
Basic Composition
Techniques of composition, including sentence
structure, paragraph development, organ-
ization of the whole theme, with regular
written assignments. Additional emphasis on
fundamentals to assist students with weak
backgrounds. A grade of C- or better admits
students to ENGL 101. Students who receive a
grade of D+ or below must repeat ENGL 100.
Students who have a grade of A or B at the
department.\n
ENGLISH 101
Composition and Rhetoric
An introduction to the elements of effective
writing, concentrating on structure, logic,
specificity, focus, grammar, sentence struc-
ture, and mechanics. Frequent writing in and
out of class. By the end of the semester, stu-
dents should be able to compose and orga-
nize a grammatically correct and adequately
developed expository essay.

ENGLISH 100I
Developmental English
For those who need academic preparation
before studying in English, this course pro-
vides focused, individualized work on special
problems in using English fundamentals, oral/
aural problems, reading and oral comprehen-
sion, English patterning and structures, lead-
ing to the production of short written works.
Students receiving a grade of D+ or below
must take ENGL 100.

ENGLISH 101
English Cooperative Education Program.
An opportunity for English majors to work
off-campus and put into practice those skills
acquired within departmental programs. The
co-op course requires a written report to be
evaluated by the School Director. In addition,
the department will require an evaluation
from the employer.

ENGLISH 200
Advanced Exposition
Essay writing, with a stylistic approach and a
course for accuracy in presenting or explain-
ing ideas in an orderly, logical manner. Em-
phasis on improved clarity and effectiveness,
through careful revision in written reports and
assigned papers, especially those pertaining
to the student’s major field. This course is required for Business majors and emphasizes business forms. Prerequisite: Completion, with passing grades, of ENGL C101.  
Offered: Every Semester  
3 semester hours

ENGLISH 204  
Technical Writing for Computer Engineers  
A workshop course that covers the following topics: lab reports, engineering memos, technical business plans, scientific/engineering grant proposals, patent applications, technical papers, user manuals of product/software, and final engineering project reports. Prerequisite: ENGL C101.  
Offered: Every two years  
1 semester hour

Creative Writing

ENGLISH 201  
Fiction Writing  
Extensive writing in short fiction. Progression from simple narrative, basic character description, dialogue and scene writing to vignette, short-short and short story. Marketing advice. Specific emphasis varies with instructor. Designed for the undergraduate who writes well but needs practice, direction, motivation.  
Offered: Every two years  
3 semester hours

ENGLISH 205  
Poesy Writing  
For students with a demonstrated basic ability in the writing of poetry. Introduction to the techniques of poetry, covering such elements as meter, rhyme, image patterns, stanza forms, lyric, dramatic, narrative modes, blank verse, and free verse. Some history of poetic movements. Study of contemporary poetry. Work in the course is mainly writing and discussing of student poems.  
Offered: Every two years  
3 semester hours

ENGLISH 218  
Autobiographical Writing  
This course focuses on the use of personal experience and history as the basis for literary pieces such as travel, memoir, and epistolary writing. Students learn how to process their experiences through writing.  
Offered: Every two years  
3 semester hours

ENGLISH 220  
Literature for Travel and Adventure  
This course focuses on fiction and non-fiction works of travel and adventure in literature from the ancient Greeks to today. The course explores the various styles, themes, and purposes of travel and adventure writing; how locations, encounters, and beliefs influence individual works; and how travel literature affects and shapes its audience.  
Offered: Every two years  
3 semester hours

ENGLISH 228  
Ethnic American Literature  
Ethnic American Literature examines the literature of America’s ethnic groups, with particular focus on the 20th Century. The course inquires into the origin of ethnic self-identification as well as the issue of race in America; drawing upon significant literature written by representatives of such groups as Native Americans, Hispanics, Jews, Asians, Blacks and Italians.  
Offered: Every two years  
3 semester hours

ENGLISH 308  
Advanced Creative Writing  
Seminar workshop: Considerable attention to the creative desires of individual students. Student may choose to write poetry, short stories, sections of novels, drama. Emphasis on completed manuscripts, potential publication, individual explorations of form and content. Prerequisite: English 201, 205, 218 or the permission of the instruction which is given only upon presentation of an acceptable piece of creative writing done by the student.  
Offered: Every two years  
3 semester hours

Language and Literature

ENGLISH 102  
Introduction to Literature  
A writing intensive course that uses representative examples of poetry, drama, and fiction to develop one’s ability to analyze and appreciate literature. Co-requisite: ENGL 101  
3 semester hours

ENGLISH 110  
Major Figures in Literature  
This course is offered in three one-credit sections, each section dealing with representative works of a major writer, and lasting one-third of a semester. Students may register for one or more sections. Usually the writers are related by either period or genre, as in the case of Henrik Ibsen, George Bernard Shaw, and Anton Chekhov, or Jack Kerouac, Henry Miller, and Sylvia Plath. Co-requisite: ENGL 101  
1 semester hour

ENGLISH 105A  
Introduction to Drama  
Introductory study of drama. Readings are drawn from a variety of genres and literary periods. Co-requisite: ENGL 101  
3 semester hours

ENGLISH 105B  
Introduction to Fiction  
Introductory study of fiction. Readings include short stories and several novels. Co-requisite: ENGL 101  
3 semester hours

ENGLISH 180  
Science Fiction  
Study of the science fiction and speculative fiction genre, covering such aspects as the history of science fiction; treatment of character, plot, heroes, style, theme; impact on society; role of science and space flight; ecological and mystical concerns. Authors read and discussed range from Hawthorne and Poe, Wells and Verne to Asimov, Heinlein, Bradbury, Clark, and Vonnegut. Co-requisite: ENGL 101  
3 semester hours

ENGLISH 197  
Masterpieces of English Literature  
An attempt to get some feeling for and pleasure from the development and continuity of English literature. Readings and discussions of selected major works by major authors such as Chaucer, Shakespeare, Milton, Swift, Blake, Wordsworth, Dickens, Tennyson, and Lawrence. Co-requisite: ENGL 101  
3 semester hours

ENGLISH 207  
American Literature I  
A survey of the major literary movements and their cultural contexts from the writings of the first settlers to the establishment of a uniquely American literature in the mid-nineteenth century. Prerequisite: ENGL 101  
3 semester hours

ENGLISH 208  
American Literature II  
A survey of the literature of transition from an
English

era of traditional and idealized values to one of realist and relativist perceptions, covering the period from the Civil War to World War II. Prerequisite: ENGL 101

3 semester hours

ENGLISH 209
British Literature I
A survey of British literature from the beginnings to the eighteenth century. Prerequisite: ENGL 101

3 semester hours

ENGLISH 210
British Literature II
A survey of British literature from the eighteenth century through the twentieth century. Prerequisite: ENGL 101

3 semester hours

ENGLISH 212
Masterpieces of World Literature
An introduction to some of the core texts from the East and West, reflecting ancient, classical, and medieval traditions of great world cultures, ending with one or two masterpieces from the Early Modern period. Selections are drawn from the Bhagavad Gita, Gilgamesh, the Bible, Homer, Greek tragedy and comedy, Plato, Virgil, Dante, Cervantes, and others. Prerequisite: ENGL 101

3 semester hours

ENGLISH 213
Contemporary Drama
Dramatic works by British and American authors as well as works in translation primarily since World War II. Emphasis will be upon how to read a play, the difference between technical appeal and meaning, and similar fundamentals for reading drama for maximum understanding. The work of playwrights such as Williams, Albee, Pinter, Behan, Ionesco, Handke, Beckett and Shepard will typically be included. Co-requisite: ENGL 101

3 semester hours

ENGLISH 215
Thematic Studies in Literature
Introductory studies of literature in relation to major areas of concern in contemporary life. Courses will vary from semester to semester. Topics included are Travel and Adventure, Murder, Madness, Ethnic American Literature, and Law and Justice. Co-requisite: ENGL 101

3 semester hours

ENGLISH 216
Introduction to Poetry
By reading, discussing, and writing about a variety of English and American poems, students will develop their ability to read, understand, and enjoy poetry. Prerequisite: ENGL 101

3 semester hours

ENGLISH 222
Modern African-American Literature
Study of the fiction, drama, poetry, and essays of such significant black writers as Richard Wright, James Baldwin, Ralph Ellison, Lorraine Hansberry, Arna Bontemps, Malcolm X, and Toni Morrison. Co-requisite: ENGL 101

3 semester hours

ENGLISH 223
The Roots of Modern Culture
Topics and themes important to the understanding of the origin and development of modern Western society and culture. Subjects such as industrialism, the growth of the city, class conflict, the emergence of new values and expectations, the importance of war, and the role of minorities are explored in a variety of literary and historical texts. Prerequisite: ENGL 101

3 semester hours

ENGLISH 224
Women in Literature
The course explores literary and gender studies, including stereotypes, myths and realities in the way women are viewed in literature. Authors include: D.H. Kate Chopin, Henrik Ibsen, Virginia Woolf, Edith Wharton, and Margaret Atwood. Co-requisite: ENGL 101

3 semester hours

ENGLISH 252
Shakespeare
Selected examples of the comedies, tragedies, and history plays. While the main emphasis is the dramatic structure of the plays, some consideration is given to the Renaissance, political, religious, and social backgrounds of the plays. Prerequisite: ENGL 101

3 semester hours

ENGLISH 285
Understanding English Grammar
This course is intended for anyone who is interested in understanding English, but particularly for those intending to teach English at the secondary level. It takes a structural approach to English grammar, focusing on ten descriptive sentence patterns and classifying works based on English usage. Prerequisite: ENGL 101

3 semester hours

ENGLISH 286
Studies in 19th Century American Literature
A variable content course covering the close study of individual authors (Hawthorne, Melville, Poe, Twain, Emerson) and major literary movements of the century (Romanticism, Naturalism, Realism). Prerequisite: ENGL 101

3 semester hours

ENGLISH 290
Studies in 20th Century American Literature
A variable content course covering such major novelists and poets as Fitzgerald, Hemingway, Faulkner, Dos Passos, Wright, Updike, Morrison, Eliot, Frost, and Stevens, as well as contemporary fiction and poetry. Prerequisite: ENGL 101

3 semester hours

ENGLISH 291
Contemporary Poetry
Lectures and discussion concerning such movements as Modernism, Imagism, and Feminism in 20th century poetry. Can involve examination of non-Western poetry. Topics vary from year to year as the English faculty may direct. Prerequisite: ENGL 101

3 semester hours

ENGLISH 305
Studies in 20th Century American Literature
A variable content course covering the close study of individual authors (Hawthorne, Melville, Poe, Twain, Emerson) and major literary movements of the century (Romanticism, Naturalism, Realism). Prerequisite: ENGL 101

3 semester hours

ENGLISH 325
Women in Literature
The course explores literary and gender studies, including stereotypes, myths and realities in the way women are viewed in literature. Authors include: D.H. Kate Chopin, Henrik Ibsen, Virginia Woolf, Edith Wharton, and Margaret Atwood. Co-requisite: ENGL 101

3 semester hours

ENGLISH 327
Shakespeare
Selected examples of the comedies, tragedies, and history plays. While the main emphasis is the dramatic structure of the plays, some consideration is given to the Renaissance, political, religious, and social backgrounds of the plays. Prerequisite: ENGL 101

3 semester hours

ENGLISH 330
Contemporary Drama
Dramatic works by British and American authors as well as works in translation primarily since World War II. Emphasis will be upon how to read a play, the difference between technical appeal and meaning, and similar fundamentals for reading drama for maximum understanding. The work of playwrights such as Williams, Albee, Pinter, Behan, Ionesco, Handke, Beckett and Shepard will typically be included. Co-requisite: ENGL 101

3 semester hours

ENGLISH 332
Shakespeare
Selected examples of the comedies, tragedies, and history plays. While the main emphasis is the dramatic structure of the plays, some consideration is given to the Renaissance, political, religious, and social backgrounds of the plays. Prerequisite: ENGL 101

3 semester hours

ENGLISH 333
Understanding English Grammar
This course is intended for anyone who is interested in understanding English, but particularly for those intending to teach English at the secondary level. It takes a structural approach to English grammar, focusing on ten descriptive sentence patterns and classifying works based on English usage. Prerequisite: ENGL 101

3 semester hours

ENGLISH 335
Studies in 20th Century American Literature
A variable content course covering the close study of individual authors (Hawthorne, Melville, Poe, Twain, Emerson) and major literary movements of the century (Romanticism, Naturalism, Realism). Prerequisite: ENGL 101

3 semester hours

ENGLISH 337
Contemporary Drama
Dramatic works by British and American authors as well as works in translation primarily since World War II. Emphasis will be upon how to read a play, the difference between technical appeal and meaning, and similar fundamentals for reading drama for maximum understanding. The work of playwrights such as Williams, Albee, Pinter, Behan, Ionesco, Handke, Beckett and Shepard will typically be included. Co-requisite: ENGL 101

3 semester hours

ENGLISH 390
Topics in Literature
Taught in seminar fashion, this course concentrates on one or two major writers or a general theme. Recent topics have been Jane Austen, Charles Dickens, Yeats, the novel in transition. The Spirit of ‘76: Literature of Early American Republic; Literature and Psychology; the Quest; Literature of Revolt. Prerequisite: ENGL 101

3 semester hours
ENGLISH 397
Thesis
The undergraduate English thesis course is an independent study designed for majors with Literature concentrations. Under the guidance of a faculty member, the student will develop a research plan leading to a thesis in his or her area of interest. Requires prior approval of the department head. Prerequisite: ENGL 101
3 semester hours

ENGLISH 398
Internship
Professional, supervised, unpaid work in an organization related to career goals. Prerequisite: Permission of advisor and dean.
3 semester hours

ENGLISH 399
Independent Studies
For the student who wishes to specialize in advanced course offerings. Individual or small group conferences with designated advisor. Prerequisite: Permission of dean.
1-6 semester hours

Fashion Merchandising

FASHION MERCHANDISING 101
Fashion Fundamentals
The course includes an overview of the fashion industry; the changing world of fashion, history of retailing, the producers of fashion, global fashion markets, influential designers, and the auxiliary levels of fashion. This course also explores careers in fashion, and the most up-to-date computer technology. Students learn to use the basic technology to perform merchandising activities for manufacturers, contractors, and retailers. This course uses PDM (Product Data Management) and Micrografx designer applications. PDM is the standard for the industry and Micrografx is a CAD system used to create silhouettes, color, fabrics, and manipulate images that interface with PDM. Prerequisites: A trip to the NYC Fashion Markets is required.
3 semester hours
Offered: Alternating semesters annually

FASHION MERCHANDISING 107
HOME FURNISHINGS
The importance of home furnishing in the marketplace has expanded as new stores dedicated to home goods have opened and department stores have enlarged their home good departments. This course presents a comprehensive coverage of the materials and products used in home furnishings in the global market, and gives our students an opportunity to focus on the merchandising and marketing of these products in retail stores today.
3 semester hours
Offered: Alternating semesters annually

FASHION MERCHANDISING 108
Product Knowledge–Fashion Accessories
In-depth studies of fashion accessories and non-woven consumer products designed to give students a realistic appreciation of quality choices in merchandise selection, in performance standards, and consumer care. Specifically, the course emphasizes raw materials: leather, plastic, rubber, fur, precious metals, precious and semi-precious stones and products: shoes, hand-bags, luggage, gloves, furs, fine jewelry, cosmetics, and fashion accessories. Course requires that students research and prepare portfolios of fashion accessories from historic and current fashion periods. Students design and create some accessory items for the current marketplace.
3 semester hours
Offered: Alternating semesters annually

FASHION MERCHANDISING 270
Fashion Show
A practical study of the techniques for Fashion Show production. The ultimate result is a fashion show presentation showing current styles from the New York and local fashion markets. Course includes planning, budgeting, organizing, writing commentaries, promoting, choosing fashions, staging and reviewing for the final show.
3 semester hours
Offered: Alternating semesters annually

FASHION MERCHANDISING OR RETAILING 299
Independent Study in Fashion Merchandising or Retailing Techniques
Prerequisite: Permission of the Director and Advisor. Senior's only.
1-3 semester hours
Offered: Alternating semesters annually

FASHION MERCHANDISING 303
History of Costume
An introduction to the development of clothing and period dress. Includes clothing designs and fabrications from Mesopotamia, Greek, Roman, Byzantine, the 12th, 13th, 14th, 15th and 16th Century, Renaissance, 17th Century Baroque, 18th, 19th Century through modern dress. A portfolio of historical and modern day adaptations of clothing is required. Prerequisite: FM101
3 semester hours
Offered: Alternating semesters annually

FASHION MERCHANDISING 398
Internship Experience
Field study of an organization in action. Students participate in an internship experience at an outside organization in the Fashion or Retail Industries. Students receive a performance evaluation from their supervisor in that organization and from an FM faculty evaluator who will visit the internship site periodically during the term. Students submit a paper with an analysis of their experiential learning.
3 semester hours
Offered: Every Semesters

Finance

FINANCE 309
Financial Management
Fundamental tools of analysis for the financial management of the firm. Sources and uses of funds analysis for capital budgeting and working capital management. Prerequisites: ECON 201 and 202, CAIS 102; junior or senior status.
3 semester hours

FINANCE 321
Investment Principles
Provides the student with the tools necessary for evaluating investments, including stocks, bonds, options and commodities. Additionally, it presents a systematic methodology for constructing efficient portfolios and evaluating portfolio performance. Prerequisite: FIN 309; junior or senior status.
3 semester hours

FINANCE 345
Management of Financial Institutions
Financial management concepts and techniques for the managerial problems of depository institutions. Includes traditional bank management concerns and those resulting from the changing economic environment. Prerequisites: ECON 301; FIN 309; junior or senior status.
3 semester hours
Finance • First Year Seminar • French • Geology • Health Sciences

FINANCE 365
Advanced Financial Management
General survey of financial theories, from the viewpoint of both the financial officer or manager and creditor or stockholder. Prerequisites: FIN 309 and FIN 321; junior or senior status. 3 semester hours

FINANCE 366
Cases in Finance
Application of financial theories to solve real world problems in Finance. Case studies involving financing and investment decisions, mergers and acquisitions, financial restructuring, dividend policies, and risk management; how these issues relate to the overall strategic objectives of the firm. Prerequisites: FIN 309; junior or senior status. 3 semester hours

FINANCE 380
Multinational Finance
The course concerns the international dimensions of corporate finance. The goal of the course is to equip students with the tools to deal with some of the major environmental and decision-making problems relating to corporate overseas finance and investments. Prerequisites: FIN 309; junior or senior status. 3 semester hours

First Year Seminar
FIRST YEAR SEMINAR 101
First Year Seminar
First Year Seminar helps first-year students get the most out of their college experience. Specifically, the purposes and learning outcomes of the course are (A) to develop a love of learning, (B) to examine and practice the norms of UB's academic culture, and (C) to acquire and hone the thinking skills that lead to success in college. As a seminar, the course emphasizes guided discussion of challenging texts. 3 semester hours

FIRST YEAR SEMINAR 102
First Year Seminar
The purpose of the First Year Seminar 102 course is to awaken intellectual curiosity and foster a strong commitment to academic culture. As an adult student in an accelerated program, the Seminar course is designed to encourage students to be active participants and to acquaint (or re-acquaint) students with the performance skills, thinking skills, and personal qualities necessary to succeed as an adult learner. 3 semester hours

French

FRENCH 101
Elementary French I
This course is for students who have little or no knowledge of French. Emphasis on listening, speaking, reading and writing skills. Instruction based on in-class use of videotapes and regular laboratory attendance. 3 semester hours

FRENCH 102
Elementary French II
Continuation of French 101. Further development of listening, speaking, reading and writing skills. Introduction to contemporary French customs through use of videotapes and reading of selected passages of literature. Emphasis on basic structural linguistics. Laboratory attendance essential. Prerequisite: FREN 101. 3 semester hours

FRENCH 103
Intermediate French I
Provides a systematic review of grammatical structures. Dictées. Introduction to various short literary texts by Francophone authors. Use of videotape program and attendance at laboratory as needed. Prerequisite: FREN 102, or four years of high school French. 3 semester hours

FRENCH 104
Intermediate French II
This course is conducted entirely in French, with emphasis on reading, writing, and oral presentations by students. Study of texts by Gide, Proust, Claudel, Romains, Pragnol, Saint-Exupéry, Sartre, Camus, Senghor, Césaire, and others, including selections from the Surrealists and authors of the nouveau roman. 3 semester hours

FRENCH 398
Internship
Professional, supervised, unpaid work in an organization related to career goals. Prerequisite: Permission of advisor and School Director. 3 semester hours

FRENCH 399
Individual Study
Special projects on topics not studied in detail in regular courses, or projects on topics included in regular courses when those courses are not available. Prerequisite: Permission required of School Director. 1-6 semester hours

Geology

GEOLOGY 205
Environmental Geology
The application of geology to problems arising out of the interaction of man and the planet. Topics include natural resources and conservation, geothermal energy; geological hazards such as earthquakes, volcanic, floods, mass movement and subsidence; and geology and regional planning; field trips. Recommended: a course in laboratory science. 2 lecture periods; 1 two-hour laboratory period; 3 semester hours

Health Sciences

HEALTH SCIENCES 101
Seminar in Healthcare Professions
This seminar course provides the health sciences student with an overview of a variety of healthcare professions and professionals. Daily activities and responsibilities, scope of practice, training, credentialing and philosophy of practice are explored for various health professionals (i.e., medical, osteopathic, naturopathic, chiropractic, dental and veterinary physicians, acupuncturist, physical assistant, nurse practitioner, physical therapy, medical technologist, dental hygiene, health education, etc.) 3 semester hours

HEALTH SCIENCES 102
Current Topics in Health Sciences
This required health science seminar course is designed to engage students in open discussions and debate of current topics impacting the health professions. 1 semester hour

HEALTH SCIENCES 201
Medical Terminology
This course introduces concepts and terms that are used within the health sciences and related fields. 1 semester hour
Health Sciences

HEALTH SCIENCE 240
Theory and Practice of Community Health Education
An introductory course that will provide students with the historical, philosophical and theoretical principles that govern the development of health education. Health promotion, the role of the health educator in clinical, community and school systems will be emphasized. Ethical issues, careers, organizations and future trends in the profession will also be examined.
3 semester hours

HEALTH SCIENCES 250
Intro to Community Health Education
This is an introductory course on public health principles and the current delivery systems in the US. It introduces the major areas of public health, epidemiology, health care management, environmental and social behavioral health, health informatics. Current problems and alternative solutions will also be examined.
3 semester hours

HEALTH SCIENCES 255
Community Health Planning and Evaluation
Students will be provided with an overall process of planning and evaluating community health education programs as they relate to defined populations in a variety of settings. Emphasis is placed on impact assessment, program design, and efficiency measurement.
3 semester hours

HEALTH SCIENCES 260
Intro to Exercise Science
This course presents an overview of the field of Exercise Science, including its development, professional activities and sub-disciplines.
3 semester hours

HEALTH SCIENCES 280
Community Health Promotion
This course is designed to provide students with an overall understanding of principles and theories of health promotion as it relates to defined populations in a variety of settings.
3 semester hours

HEALTH SCIENCES 301
Biomechanics
This course provides an introduction to concepts of mechanics as they apply to human movement, particularly those pertaining to occupational work, exercise, sport, and general physical activity. The student will gain an understanding of mechanical and anatomical principles governing human motion and develop the ability to link the structure of the human body with its function from the perspective of rigid body and deformational mechanics as they apply to biological tissues including bone, muscle, and connective tissue. Students will be expected to develop an understanding of the important issues regarding the application of engineering tools in the study of biological mechanics. Pre-requisite PHYS 201, BIO 113, HSCI 321 or BIO 114
4 semester hours

HEALTH SCIENCES 320
Food Sanitation
The course introduces concepts related to the production, storage, preparation of food for human consumption. Attention is given to disease processes and their relationship to food preparation and consumption. Topics covered also include the commercial, social, and legal environments of food production and recall of contaminated food
3 semester hours

HEALTH SCIENCES 321
Exercise Science Anatomy & Physiology
This course focuses on anatomy and physiology from the perspective of an exercise scientist. Nervous, skeletal and muscular systems are studied as primary functional systems in the context of exercise and performance. Cardiovascular, respiratory and urinary systems are studied as primary support systems in the context of exercise and performance. Other systems are studied as secondary support systems. This course is intended to replace general anatomy and physiology for students on the Exercise and Fitness track. A one credit laboratory component is also included.
4 semester hours

HEALTH SCIENCES 325
Exercise Physiology
This course examines how muscles make energy under exercise stress and how fitness behaviors and strategies affect performance, health and wellness. Emphasis is placed upon the muscular performance at the cellular/molecular level, as well as cardiovascular, respiratory, and other physiological processes that occur as a result of exercise and training. A one credit laboratory component is also included. Pre-requisite BIOL 113, HSCI 321 or BIOL 114, CHEM 113, CHEM 114, MATH 105
4 semester hours

HEALTH SCIENCES 326
Health Policy and Management
The influence of policy and management of community health education will be examined. Societal and professional influences emerging threats on health and health policy will be discussed.
3 semester hours

HEALTH SCIENCES 330
Health Care Administration
This course is designed to familiarize the student with the administrative concepts necessary to effectively administer health facilities and departments. Emphasis is placed on leadership, decision making and problem solving skills.
3 semester hours

HEALTH SCIENCES 331
Kinesiology
The gross anatomy of the skeletal and muscular systems and the analysis and study of human movement and biomechanics are the focus of this course. Emphasis is placed on anatomical and mechanical analysis of motion as it pertains to movement in sport and exercise. Prerequisite PHYS 201
3 semester hours

HEALTH SCIENCES 335
Health Issues for Special Needs Populations
This course introduces students to special needs populations, including those who are recovering from recent illness or accidents. Attention is given to resources (medical, social, and legal) in the support of these populations.
3 semester hours

HEALTH SCIENCES 341
Strength & Conditioning
This course covers the anatomy and physiology, training sequences, available equipment, and safety factors, including contra indications, in the optimal development of strength and conditioning. Prerequisites: BIOL 113, BIOL 114, HSCI 321
3 semester hours

HEALTH SCIENCE 345
Comparative Diet Strategies
This course explores and compares various dietary strategies, including low-fat, high-carbohydrate, high-protein, macronutrient-balanced, macrobiotic, high-fiber, vegetarian, vegan, Paleolithic, and Mediterranean. The pros and cons of these various approaches are discussed, along with the evidence-base that
exists, or does not exist, to support their use. Prerequisite: NUTR 205
3 semester hours

HEALTH SCIENCES 350
Community Nutrition
A basic knowledge and understanding of the applied science of community nutrition for the purpose of enhancing health of populations is provided. The course presupposes a fundamentals course in nutrition science and does not teach this. Rather, the process of conceiving, planning, funding, creating, implementing and managing of nutrition education, feeding and/or other intervention programs for various constituencies (elderly populations, handicapped, children, college students, etc.) is covered. Governmental feeding programs and policies as well as critiques of these and alternatives to these are discussed. The course emphasizes assessment of and critical thinking about problems and opportunities within communities as they relate to nutritional health. Problem solving and identification of resources towards better health is stressed. Prerequisite: NUTR 205
3 semester hour

HEALTH SCIENCES 351
Fitness and Wellness Program Development
The course examines features of fitness and wellness program design and development. Disease prevention as a feature of fitness and wellness is studied in detail, with attention to social systems and infrastructure. Prerequisites: BIOL 113, BIOL 114, HSCI 321
3 semester hours

HEALTH SCIENCES 355
Epidemiology for Health Science Professionals
The course introduces the study of disease process, with special attention to transmission, containment, and treatment. Topics covered include urban environments, travel, socioeconomic conditions affecting the spread of disease, and the like. Prerequisite: Biostatistics.
3 semester hours

HEALTH SCIENCES 380
Internship in Nutrition
A senior-year supervised field experience, conducted in a University approved setting, which is designed to provide the student with career related experience in the field of health and nutrition science.
3 semester hours

HEALTH SCIENCES 381
Internship in Exercise & Fitness
A structured off-campus learning experience designed to provide students with a practical professional experience in Fitness and Exercise Science.
3 semester hours

HEALTH SCIENCE 385
Community Health Education Internship
Professional field experience will provide students an opportunity to apply previously acquired knowledge and skills in the assessment, planning, implementation, and evaluation phases of community health education. Prerequisite: NUTR 205
3 semester hours

HEALTH SCIENCES 401
Health Sciences Information Literacy
This course introduces topics in information literacy, including information analysis and evaluation, the most important databases in health care and health sciences fields, and the like. Prerequisites: BIOL 113, BIOL 114, CHEM 113, CHEM 114, HSCI 321, MATH 203, MATH 203B
3 semester hours

HEALTH SCIENCE 420
Food Service Management
The basic principles of managing a food service operation are explored. Topics covered include human resource development; marketing and branding; environmental control and community responsibility; microbiology, sanitation, food-borne illness prevention and first-aid; general safety regulations and procedures including fire prevention; facility set-up as to equipment, cleanliness and maintenance; and production of meals from sourcing of raw materials through to client consumption. Practical field experiences are included. Prerequisite: NUTR 205
3 semester hours

HEALTH SCIENCE 460
Vitamins & Minerals
Basic and clinical aspects of macronutrients will be discussed with emphasis on vitamin and mineral metabolism at the cellular and tissue level. Lectures will include specific functions, requirements, sources, and effects of deficiencies and excesses of vitamins and minerals. Prerequisite: NUTR 205
3 semester hours

HEALTH SCIENCES 471
Exercise Nutrition
The course examines aspects of sports nutrition detailing proper dietary and nutritional supplement protocols for enhancing endurance and performance during exercise and sports. Prerequisites: BIOL 113, BIOL 114, CHEM 113, CHEM 114, HSCI 321, NUTR 205
3 semester hours

History

HISTORY 100
Major Figures in World History
This course is offered in three one-semester hour sections, each section dealing with one person of historical significance, and lasting 12 class periods. Students may register for one or more sections. Usually the three persons are related chronologically or thematically, as in the case of Hitler, Mussolini and Stalin, or Washington, Jefferson and Adams, or Florence Nightingale, Emmeline Pankhurst, and Emma Goldman.
Offered: Every two years
1 semester hour

HISTORY 101
World Civilization I to the 17th Century
The first semester of a historical survey of world cultures. The development of social, political, economic, and religious institutions and the major trends of philosophy, science,
History

literature, and art.
Offered: Every other semester
3 semester hours

HISTORY 102
World Civilization II — 17th Century to the Present
The second semester of a historical survey of major world cultures. Because of the nature of the period studied, additional emphasis on political, economic and social developments and on the role of science and technology.
Offered: Every other semester
3 semester hours

HISTORY 207
American History to 1877
European background to discovery and exploration. The English colonies; struggle for North America; the Revolution; constitutional development; growth of democracy; westward expansion; sectionalism; Civil War and Reconstruction. Major political, social, economic, and cultural trends in American society through Reconstruction.
Offered: Every other semester
3 semester hours

HISTORY 208
American History Since 1877
Gilded Age; industrial development; big business; expansion; imperialism; the U.S. as a world power; wars and foreign affairs; constitutional trends; political developments, economic and social trends and problems; cultural trends.
Offered: Every other semester
3 semester hours

HISTORY 222
The Ancient Greeks
From pre-Mycenaen times to the Hellenistic period, ending in 146 B.C. Emphasis on institutions, everyday life, ideas, and culture.
Offered: Every two years
3 semester hours

HISTORY 223
Ancient Rome
From earliest Roman society to the time of Constantine. Emphasis on institutions of the Roman Republic and Empire and their impact on Western Civilization.
Offered: Every two years
3 semester hours

HISTORY 228
Foundation of Modern England
Examination of social, economic, political and cultural resources and events from the English Renaissance under Henry VIII (1509) to the Colonial wars under George III (1783). Special focus on the Reformation, Civil War, Cromwell and the Glorious Revolution (1688); early development of Empire; life-styles and culture or rural and early industrial society.
3 semester hours

HISTORY 229
Independent Study in History
Designed for the student who wishes to develop a survey project not covered by the listed course offerings. Individual or group conferences with designated faculty advisor. Prerequisite: Permission of School Director
Offered: Every semester
1-6 semester hours

HISTORY 230
The Civil Rights Movement
3 semester hours

HISTORY 232
History of Science
This course provides a global perspective on the growth of human knowledge by tracing the development of science and technology from the beginning of civilization to the present day.
3 semester hours

HISTORY 233
Roots of Modern Culture
Topics and themes important to the understanding of the origin and development of modern Western society and culture. Subjects such as industrialism, the growth of the city, class conflict, the emergence of new values and expectations, the importance of war, and the role of minorities are explored in a variety of literary and historical texts. (Cross-listed as English 233)
Offered: Every two years
3 semester hours

HISTORY 234
The Gilded Age
3 semester hours

HISTORY 299
Civil War and Reconstruction
Causes of the war; sectionalism, slavery, the territories, economic, social and intellectual factors, secession and war; major military campaigns, constitutional developments, presidential and congressional reconstruction, and the disputed election of 1876.
Offered: Every two years
3 semester hours

HISTORY 304
World Civilization
Examining students of African historiography up to, including, and after the period of colonization, as well as of the concepts underlying African religions.
Offered: Every two years
3 semester hours

HISTORY 316
Early African-American History
A study of the slavery experience from 1619 to 1877 focusing on the political, social, and economic aspects of the system, and the varieties of resistance to the system.
Offered: Every two years
3 semester hours

HISTORY 317
Twentieth Century African-American History
Emphasis is placed on the struggle of African Americans to attain full rights of citizenship. Examination of African-American leadership, its ideas, and the impact of its ideas upon various African-American movements, such as integration, emigration, separatism, civil rights, and black power.
Offered: Every two years
3 semester hours

HISTORY 350
Connecticut History
The history and geography of Connecticut and study of the political and social development of Connecticut towns, lands and political institutions.
3 semester hours

HISTORY 335
Topics in European/Non-West History
3 semester hours

HISTORY 336
Portrait of an Age
Comprehensive study of life and manners of a particular historical period, with emphasis on original sources such as diaries, memoirs, official records, literature, art and music. Periods could include the ante-bellum South, the Gilded Age, Victorian Society in England or the United States, France in the time of Louis XIV, and so on. May be repeated for credit if topics vary.
Offered: Every two years
3 semester hours

HISTORY 360
Studies in African History and Culture
3 semester hours

242
This course takes up where History 360 leaves off. It addresses the following: 19th century colonialism in Africa, African resistance to European colonization, African independence movements, decolonization in the mid 20th century and the subsequent establishment of independent African states. Offered: Every two years
3 semester hours

HISTORY 398
Internship
Professional, supervised, unpaid work in an organization related to career goals. Prerequisite: Permission of advisor and School Director.
3 semester hours

HISTORY 399
Independent Study in History
For the student who desires to specialize in advanced projects not covered by the regular course offerings. Individual or group conferences with designated faculty advisor. Prerequisite: Permission of School Director.
1-6 semester hours

Human Services

HUMANS SERVICES 101
Introduction to Gerontology
An interdisciplinary overview of the implications of aging in American society. This course is designed to acquaint the student who is contemplating a career in gerontology, with the physical, psychological, social, economic and cultural dimensions of the total experience of growing older.
3 semester hours

HUMAN SERVICES 105
Strategies for Effective Parenting
Students will acquire relevant child-raring information and constructive parenting techniques. Several therapy models useful for understanding child development will be explored. Emphasis will be on exploring personal parenting influences and preparing students to parent positively.
3 semester hours

HUMAN SERVICES 110
Alcohol and Other Drugs in Society
This course explores alcohol and other drug use and abuse in society. Included in the course will be a historic review, the role of culture in use of drugs, the effect on society, the family and the individual, and an overview of the etiology, assessment and treatment of dependence.
3 semester hours

HUMAN SERVICES 150
Career Management
This course prepares students to manage their own careers early in their college experience for their eventual college to work transition. Through self-exploration, students learn more about themselves in relationship to the world of work and about creating college experiences that will make them more marketable in a global community.
1-3 semester hours

HUMAN SERVICES 201
Introduction to Counseling
This course focuses on skills, theories and techniques of the helping profession. The importance of helpers knowing themselves is crucial in the helping field. An integrated, experiential component designed for self-exploration and increased understanding of self is explored through family of origin work.
3 semester hours

HUMAN SERVICES 203
Introduction to Human Services
This course briefly explores the historical beginnings of the human service field and focuses on the present day service delivery models, the needs of clients and the training of human service professionals. An integrated approach including community site visits and case studies will assist students in gaining a firm understanding of this field.
3 semester hours

HUMAN SERVICES 205
Counseling Methods for Specialized Populations
Students study through biographies specialized populations (i.e. those with mental and physical disabilities, drug and alcohol users, and emotionally, physically, and sexually abused) while becoming familiar with the various counseling approaches useful in effecting changes in these individuals.
3 semester hours

HUMAN SERVICES 225
Sign Language I
This course introduces students to the Art of Sign Language. Using American Sign Language they will be able to communicate on a basic level. Students will learn subtle aspects of language, such as facial expression, gestures (non-verbal communication), use of classifiers, and directional verbs. Students will learn the manual alphabet and be able to use it in the everyday interactions if needed.
3 semester hours

HUMAN SERVICES 230
Sign Language II
Sign Language II will reinforce the knowledge students have gained in Sign Language I. Using American Sign Language, students will begin to speak more fluently. Their skills will be perfected as they continue to learn subtle aspects of the language, such as facial expressions, gestures, from verbal communications, use of classifiers, and directional verbs. Students will perfect the manual alphabet and be able to use it in their everyday interactions when needed.
3 semester hours

HUMAN SERVICES 277
Practicum in Human Services
Students enrolled in the practicum receive individually arranged on-site placement in human service agencies. This arrangement is intended to provide students the opportunity to experientially investigate the specific area of interest that they have developed and/or to allow for the individualization necessary to meet the student’s specific skill area needs. Students are expected to be concurrently in a class where they have an opportunity to discuss and process their on-site learning experiences.
1-6 semester hours (Every Semester)

HUMAN SERVICES 299
Special Topics
Investigation of current topics in the human services field.
1-6 semester hours

HUMAN SERVICES 301
Crisis Management
This course provides a background in cultural diversity and competence specifically related to human services settings. This includes culturally centered communication skills related to clients. It also includes sensitivity and awareness around the design and implementation of human services programs. The course will help students effectively navigate ethnic, race, gender and age related issues as they relate to client service and program development.
3 semester hours
HUMAN SERVICES 302
Multicultural Perspectives in Human Services
Students are exposed to models of crisis intervention that facilitate crisis resolution. Crisis theory, critical factors, developmental and situational crisis as well as intervention with unique populations and special issues are discussed. Course includes competency-based skill-building exercises.
3 semester hours

HUMAN SERVICES 305
Strategies and Techniques of Group Interaction
Students become aware of strategies and techniques of group interaction as they relate to behavioral outcomes. Different theoretical models will be offered and opportunities will be given to demonstrate the effectiveness of specific approaches to unique populations.
3 semester hours

HUMAN SERVICES 312
Internship in Human Services
The internship differs from the practicum in that it emphasizes the organizational aspects of the placement, i.e. management, planning, research, etc.
1-6 semester hours

HUMAN SERVICES 315
Substance Abuse and Chemical Dependency
This course concentrates on assessment and diagnosis of substance abuse and chemical dependency as well as the different treatment modalities and methods used to help the addicted. Included in the course will be a look at the different addictions and compulsive behavior patterns including alcohol and other drug dependency, gambling, and eating disorders.
3 semester hours

HUMAN SERVICES 316
Strategies for Effective Families
This course explores functional and dysfunctional families. Students will gain an understanding of the family system and methods of intervention and treatment for the family as well as individuals within the family.
3 semester hours

HUMAN SERVICES 320
Applied Ethics for Human Services Professionals
A general introduction to basic ethical principles as applied to human services and direct support workers across a spectrum of programs. Programs include work in hospital, community, day care, school, recreational, rehabilitation and mental health settings. Students apply ethical principles throughout the course to topics and case studies from the class text and from actual examples from their own practicum placements. Students engage in reading, discussion, writing, and individual presentations during the course. Students recognize basic ethical terminology, apply ethical models to relevant cases, and draft their own ethical decision-making model as a product of this course.
3 semester hours

HUMAN SERVICES 331
Process of Living and Dying
A seminar based on the premise that death and dying are closely related to life and living. This course explores the processes of death and dying, its effect on family members, cultural attitudes toward death, and various professional and paraprofessional roles available to deal with these issues.
3 semester hours

HUMAN SERVICES 333
Social Policy and Administration
This course introduces the student to the various components of social policy; formation, implementation, administration, and evaluation. Theoretical issues as well as historical factors in policy are presented. Practical problems in administration of non-profit agencies are presented and analyzed.
3 semester hours

HUMAN SERVICES 350
Seminar in Human Services
This seminar course is designed as a culminating experience incorporating primary readings and case studies. Students will have an opportunity to explore and discern current issues and personal interests in the human service field.
3 semester hours

HUMAN SERVICES 351
Social Gerontology
This course deals with societal aspects of aging and focuses upon socio-cultural factors that contribute to patterns of aging in the USA. Topics covered include the cultural meaning of aging; the socialization process of aging; the population dimension of aging; human ecology of the aged; social stratification among the aged; deviance and crime among the aged; social power of the aged; and social change and the aged. Prerequisites: HUSV 101 or SOC 101
3 semester hours

HUMAN SERVICES 389
Seminar in Critical Issues in Contemporary Gerontology
This course is interdisciplinary in its orientation and its purpose is to familiarize students with the rich diversity of professional literature contributing to the field of gerontology. In addition, it is designed to demonstrate the linkages between theoretical issues and practical concerns in the field of aging. The course will draw upon the knowledge and experience of a variety of scientists and practitioners who will lead discussions on selected issues to be identified by the seminar’s participants. Prerequisites: GER 101 and 12 additional hours of gerontology course work
3 semester hours; upon student demand

Integrated Studies

INTEGRATED STUDIES C101
Ethical Issues in Computing
Ethical basis for dealing with technological issues involving the computer. Context for ethical decision-making; ethical relativism, utilitarianism, deontology, virtue ethics. Software piracy, intellectual property rights, computer crime, computer viruses and worms, privacy, responsibility, liability and professional ethics. The course includes oral presentations, discussions and written papers on issues currently in the news and/or related to the topics at hand. Prerequisite: ENGL C101 or Department Permission.
3 semester hours

International Business

INTERNATIONAL BUSINESS 325
Import/Export
This course surveys functions and responsibilities of international traffic personnel: terms of trade; U.S. and foreign rules and regulations; documentation; methods of payment; ocean transportation; price quotations; analysis of transportation and marine insurance. Prerequisites: ECON 201, ECON 202; junior or senior status.
3 semester hours
International Business • International Political Economy and Diplomacy

INTERNATIONAL BUSINESS 360
Business and International Law
This course covers International Business Law fundamentals which operate as the “constitution” for international economic relations. A basic proposition of the course is that understanding International Business Law is essential to the study of International Relations, including the global economy and business. 3 semester hours

INTERNATIONAL BUSINESS 362
International Sales (Commercial) Transactions
This course introduces the basic issues in an international sales transaction. Based on the United Nations Convention on Contracts for the International Sale of Goods (CISG), the course examines formation of international sales contracts, transfer of title to goods, allocation of risk of loss, methods of financing the sale of goods, assurance of payment for goods, and rights and responsibilities of air and sea carriers. 3 semester hours

INTERNATIONAL BUSINESS 363
Settlement of International Business Disputes
This course examines the techniques and institutions available to states, corporations, or individuals for the peaceful settlement of international business disputes. It focuses on the settlement of international business disputes through such means as negotiation, mediation, arbitration, court systems of sovereigns, and the International Court of Justice. 3 semester hours

INTERNATIONAL BUSINESS 366
International Business and Customs Unions
This course examines the origins and historical development of the European Union, its institutions, business policies and special relationships with the rest of the world to create a common currency to achieve open trade in business across borders. 3 semester hours

International Political Economy and Diplomacy

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 202
Introduction to Political Economy
The Introduction to Political Economy reviews the ways in which politics, trade, and economics are intertwined in today’s world. The course introduces students to basic concepts and issues in political economy and examines the factors that have contributed to the evolution of political economy and to the rise and fall of competing models of political economy. 3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 203
Political Economy of North America
This course examines the interactions of politics and economics of the United States, Mexico, and Canada. Issues to be covered include NAFTA, immigration, drug-trafficking, environment, terrorism, and foreign policies of the region. 3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 321 (IPED 321/PSCI 321)
Political Economy of East Asia
In recent decades, the East Asian region has often been described as a model of socioeconomic development, which newly developing regions should emulate. This course will encourage learners to explore the extent to which the East Asian paradigm of development is valid for other regions. This course will explore the cultural and historical factors contributing to the political and economic trajectories China, Korea, and Japan. Through studying East Asia’s unique sociopolitical and economic trajectory, students should be equipped to better contextualize and assess the challenges and opportunities currently facing the Peoples Republic of China, Taiwan, Hong Kong, Japan, and the Koreas. 3 semester hours

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 329
Political Economy of China
This course is designed to help students make sense of contemporary China—its dynamic social and economic changes, its lasting political culture, its enduring struggle for modernization and democratization, and its evolving relations with the rest of the world. The focus will be on major achievements, problems, and challenges facing China today. Instructor’s permission may be required for this course. 3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 340 (IPED 340/PSCI 303)
Political Economy of Latin America
This course will explore pre-Colombian, as well as colonial and post-colonial political and economic development in Latin America. It will pay particular attention to socio-political developments of the Cold War period as well as recent significant initiatives such as the Santiago Commitment, MERCOSUR, and NAFTA, attempting to assess their impact upon Latin America’s transformation from developmentism, to Third World politics, to an emerging center of democratic capitalism. 3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 341
Political Economy of Middle East
This course will familiarize the students with the patterns of economic development and the evolution of economic institutions in the Middle East and North Africa region after World War Two. To the extent that political and social institutions are relevant for understanding the region’s economic development, the course will also cover these subjects selectively. For example the students will learn about how regional instability and political institutions of MENA countries have affected their ability to implement economic reforms. Another important topic that will be covered in detail is the impact of oil wealth on political and economic development of the region. The course will also familiarize the students with tools and procedures of country analysis and regional analysis and apply these tools to understanding the present conditions of the MENA countries with an eye to the future trends. The emphasis will be on analysis of the main drivers of economic growth such as the leading economic indicators, prospects for macroeconomic stability, and major risk factors that could have an adverse effect on business climate. 3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 345
Political Economy of EU
This course studies the origin, evolution and current development of the European Union.
Focus will be on the political, economic, and social impact of EU on Europe as a whole, on individual member state, and on EU-US relations. Instructor’s permission may be required for this course.

3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 390
Multinational Corporations in IPE
This course analyzes the role of MNCs in IPE. Topics include the nature, objectives, and decisions of MNCs in today’s politics and economics, the political and economic implications of foreign direct investment, and the effects of MNCs’ operations overseas on the political economy of the host country and the home country such as issues of outsourcing and insourcing. Instructor’s permission may be required for this course.

3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 391
Sustainable Development
This course concentrates on the relatively new concept of sustainable development in international political economy. Topics include, but are not limited to, pollution and pollution control, environmental protection, education and occupational training, infrastructure, legal system, political and economic reform, productivity, human resources, and linkage to the outside world. Instructor’s permission may be required for this course.

3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 392
The Geopolitics of Oil
Due to its critical importance in world economy, petroleum has assumed a significant role in the maintenance of a stable international political, economic, and security order. This course examines the international political economy associated with the exploration, production, trading, and consumption of petroleum. It focuses on how petroleum influences global and regional politics and economics in an interdependent world. Instructor’s permission may be required for this course.

3 semester credits

INTERNATIONAL POLITICAL ECONOMY AND DIPLOMACY 395
Political Economy of Environment
This course studies various environmental issues in international political economy. A global perspective is stressed with references made to several international environmental agreements, their enforcement, and their impact on global and regional economy. The course will also discuss issues related to environment such as epidemics and their relations to international political economy. Instructor’s permission may be required for this course.

3 semester credits

JAPANESE 399
Independent Study
Special projects on topics not studied in detail in regular courses, or on topics included in regular courses when those course are not available. Prerequisite: Permission of advisor and School Director.
1-6 semester hours

Korean

KOREAN 101
Elementary Korean I
Introduction to the Korean language, stressing speaking, listening, reading and writing. The course will start with the Korean writing system, its phonetic/phonemic system, and its structure, continue with an examination of what makes Korean unique to other languages, and then proceed with a step by step study of grammar, vocabulary, writing and conversation.

3 semester hours

KOREAN 102
Elementary Korean II
Continuation of Korean 101. Prerequisite: KORN 101

3 semester hours

KOREAN 103
Intermediate Korean I
Conversation based on the reading of modern prose texts. Drill in written and oral expression. Prerequisite: KORN 102

3 semester hours

KOREAN 104
Intermediate Korean II
Continuation of Korean 103. Prerequisite: KORN 103

3 semester hours

KOREAN 399
Independent Study
Special projects on topics not studied in depth in regular courses, or on topics included in regular courses when those courses are not available. Prerequisite: Permission of advisor and School Director.
1-6 semester hours
Law

LAW 251
Business Law I
Court systems, sources of law in the United States, the constitutional basis of the legal system, government power to regulate business, the types and powers of administrative agencies, civil dispute resolution and alternatives to civil litigation; the law of contracts, fairness and good faith in interpretation of contracts, and the United Nations Convention on Contracts for the International Sale of Goods; problems in Agency and Employment, the ethical implications of business decisions, the broad functions of criminal and tort law, the Foreign Corrupt Practices Act, and the constitutional limitations on criminal procedure.

3 semester hours

LAW 252
Business Law II
Uniform Commercial Code (Sales, Commercial Paper, Bank Deposits and Collection); business organization; Property (Personal Property, Real Property, including Landlord and Tenant, and Estates and Wills).

3 semester hours

Literature and Civilization

HUMANITIES C201A
The American Dreamer
An interdisciplinary course which employs history, literature and philosophy to examine and explain the cultures and values of a civilization over time and place. Works studied include primary historical and philosophical texts, as well as literary and artistic creations. Currently, the course looks at the civilization of the United States, focusing on the “American Dream,” its origins, growth and significance. This is a Core Heritage Course. Prerequisite: English C101 or department permission.

3 semester hours

HUMANITIES 300
Seminar
An interdisciplinary and thematic seminar that focuses on the different approaches of history, literature, and philosophy to a common theme or text.

3 semester hours

HUMANITIES 395
Thesis
The student will work closely with his or her academic advisor on a mutually acceptable project involving serious research.

3 semester hours

Management and Industrial Relations

MANAGEMENT 300
Interpersonal and Group Behavior in Organizations
The student is introduced to behavior in organizations on interpersonal, group and intergroup levels. Group process is examined on both conceptual and experiential levels to enhance understanding of interpersonal and group processes, as well as to test and hone individual interpersonal and group participation skill. Theories of Social Psychology and Group Sociology are examined and applied. Prerequisite: junior or senior status.

3 semester hours

MANAGEMENT 301
Operations Management
The student is introduced to the basic tools and concepts used in managing the delivery of products and services. Inventory cost control, work flow design, development of work standards, workplace layout, quality control, project management, forecasting, capital investment planning, capacity policy and related methods for management of operations are presented in this course. Prerequisite: junior or senior status.

3 semester hours

MANAGEMENT 302
Multicultural Management
This course introduces students to the basics of organization and management theory, as they apply to the global market place. A cross-cultural approach is used to examine the similarities, differences and application of theory across national boundaries; and to identify those structural constants that permit business to be conducted on a global scale. Organization culture, role structure, coordination and control methods, leadership, and business strategy are the basic theoretical constructs introduced and evaluated in the course. Prerequisite: junior or senior status.

3 semester hours

MANAGEMENT 305
Human Resource Issues in Management
The student is introduced to current theory, research and practice in the management of human resources in organizations. Job design, recruitment, selection, performance feedback, goal setting, training, employee rights, safety, compensation and benefits issues are reviewed within the context of their application in the US as a world standard for such practices, with comparisons to customs and practices in the international arena. Prerequisite: MGMT 302; junior or senior status.

3 semester hours

MANAGEMENT 311
Comp and Benefit Administration
Students in this course will examine the major foundation programs and skills that under grid the current practice of Human Resource Management. Theory and method used in the design of compensation systems is explored, interviewing method and skill as applied to data gathering for problem solving or personnel selection, surveys for compensation benchmarking or employee attitude measurement, and development of performance feedback and goal setting (MBO) programs are intensively reviewed. Student projects in program applications are required. Prerequisite: MGMT 302; junior or senior status.

3 semester hours

MANAGEMENT 320
Entrepreneurship and Small Business Management
For starting or buying a new business, it is critical to develop practical business plans, obtain financing, develop a marketing plan, project cash flow, organize the business, and develop financial controls to take advantage of opportunities in both domestic and international markets. Work is done in teams and computer analysis is used. Prerequisites: ACCT 102, MKTG 305, and MGMT 302.

3 semester hours

MANAGEMENT 330
Leadership Lessons from the Movies
In this course students watch a variety of movies to examine the dynamics of leadership. Organizations and work units rise and fall based on leadership. Leaders must influence other people to accomplish organizational goals in a way that often entails self-sacrifice and living for the sake of others.

3 semester hours
Communication in Industry.
—See MCOMM 385.

Industrial Psychology.
—See PSYC 309.

Management and Industrial Relations • Marketing

MANAGEMENT 340
Conflict and Negotiation
The development of conflict-management and negotiating skills with particular emphasis on achieving effective and efficient outcomes within a global and multi-cultural context. Experiential exercises, readings and discussions will demonstrate various strategies for a broad range of negotiating scenarios, e.g., buyer-seller, management-labor, personal salary increase, cross-national, etc. Prerequisite: junior or senior status.
3 semester hours

MANAGEMENT 342
Labor Law and Arbitration
Modern labor legislation and its practical impact on present relations between labor and management. Increasing role of government through federal statutes and agencies. Historical background, principles, procedures and judicial aspects of arbitration process. Nature and function of arbitration; powers of arbitrator; and arbitration cases. Prerequisite: MGMT 305; junior or senior status.
3 semester hours

MANAGEMENT 350
Business Policy and Strategy
A study of decision-making including integrating analyses and policy determination at the overall management level. Students search for new knowledge and solutions to long and short term problems and opportunities in specific businesses. The coordination, integration and innovative application of theory and methods learned in previous courses are the tools of research. Accordingly, the final examination of each course shall constitute, therefore, an outcome assessment of what the student has learned in the program. This examination, normally an extensive and comprehensive case study, will be graded by several faculty members representing different and relevant disciplines.
3 semester hours; open only to seniors

The following courses are suggested for those students who wish to take elective courses in other disciplines which are related to or useful in the practice of management:

Communication in Industry.
—See MCOMM 385.

Industrial Psychology.
—See PSYC 309.

Social Psychology.
—See PSYC 305.

Tests and Measurements.
—See PSYC 323.

Marketing

MARKETING 305
Principles of Marketing
The scope and significance of marketing. The retailing and wholesaling of consumer goods. Marketing agricultural and industrial goods. Marketing policies and practices of business firms. Prerequisite: junior or senior status.
3 semester hours

MARKETING 306
Consumer Behavior
A qualitative analysis of marketing as a system for the satisfaction of human wants. The contribution of psychologists, sociologists, anthropologists, and other behavioral scientists to the understanding of consumer behavior. Such topics as motivation, learning, life-cycle and social-class analysis, culture and custom. Prerequisite: junior or senior status.
3 semester hours

MARKETING 307
Management of Promotion
Advertising, personal selling, trade support, and public relations as elements of strategy. Situation analysis planning, execution, and evaluation of promotional campaigns. Social responsibilities of the firm and some of its ethical problems. The impact of consumerism. Prerequisite: MKTG 305; junior or senior status.
3 semester hours

MARKETING 308
Marketing Research
Objectives, techniques, and limitations of library and field research applied to advertising, retailing, or sales management problems. Assignment of group projects requiring considerable initiative and resourcefulness. Measurements of individual accomplishment by both group activity and individual evaluation of the project. Prerequisites: MGMT 120 and MKTG 305; junior or senior status.
3 semester hours

MARKETING 310
Service Marketing
Marketing in service industries, stressing the unique problems of marketing intangibles.

This course focuses on the development, implementation and control of strategy, systems and people for effective service operations. Case studies are selected from professional services, transportation, hotels and resorts, and various other retail services. Prerequisite: MKTG 305.
3 semester hours

MARKETING 319
Advertising Management
A critique of advertising from the viewpoint of management. Case problem-solving of situations that have confronted businessmen. The impact of advertising on demand for products and services. Principal problems in the building, implementing and evaluating of advertising programs. Prerequisite: MKGT 305. Junior or senior status.
3 semester hours

MARKETING 325
Sales Management
Management of manufacturer’s salesmen. Sales department organization. Selecting, training, compensating, and supervising salesmen. Sales territories, travel expenses, quotas, and budgets. Principles are applied to concrete problems. Prerequisite: MKGT 305; junior or senior status.
3 semester hours

MARKETING 339
Retailing Management
Use of the case method to analyze and solve problems faced by senior retail executives. Case histories set forth detailed background information to train the student in developing alternative solutions and choosing from among them. Cases in each of the major fields of retail management, merchandising, publicity, personnel, control, and service activities. Prerequisite: MKTG 305. Junior or senior status.
3 semester hours

MARKETING 342
Multinational Marketing
Lecture and case studies, exploring cultural, political, economic and legal aspects of the development and operation of companies marketing overseas. Planning, organizing, controlling, and promoting for industrial and consumer goods. Prerequisite: junior or senior status.
3 semester hours

MARKETING 350
Marketing Management
The nature and scope of marketing manage-
Martial Arts Studies

MARTIAL ARTS STUDIES 110
Taekwondo Practicum 1
This is an introduction to Taekwondo, commencing with instructions in essential classroom etiquette and training rules. Through this course, students are expected to achieve mastery of Taekwondo forms Taegeuk No. 1 & 2 as well as white belt Hammer Fist and Axe kick breaking techniques, and yellow belt Palm Fist and Front Snap kick breaking techniques.

1 semester hour

MARTIAL ARTS STUDIES 111
Taekwondo Practicum 2
This level of Taekwondo training focuses on the adaptation of the body to martial art training. Through this course, students are expected to achieve mastery of Taekwondo forms Taegeuk No. 3 & 4, self defense techniques No. 3 & 4, kicking techniques with a focus on the Roundhouse kick and Side kick, sparring techniques with a focus on orange belt Elbow strike and Roundhouse kick breaking techniques and green belt Straight punch and Side kick breaking techniques.

1 semester hour

MARTIAL ARTS STUDIES 112
Taekwondo Practicum 3
This course focuses on enhancing the student's ability to maintain and increase physical balance. Through this course, students are expected to achieve mastery of Taekwondo forms Taegeuk No. 5 & 6 (20 motions No. 5 & 23 motions No. 6, guiding themes “wind & flowing like water”), self defense techniques No. 5 & 6, kicking techniques with a focus on the Back kick and Hook kick, sparring techniques with a focus on 1:1 basic sparring, blue belt Back fist and Back kick breaking techniques and brown belt Knife hand and Hook kick breaking techniques.

1 semester hour

MARTIAL ARTS STUDIES 114
Taekwondo Practicum 4
This Taekwondo class will focus on enhancing concentration skills. Through this course, students are expected to achieve mastery of Taekwondo form Taegeuk No. 7, self defense technique No. 7, kicking techniques with a focus on the Back Spin Hook kick, sparring techniques with a focus on basic skill sparring, breaking techniques of Half Knuckle punch and Back Spin Hook kick. At the completion of this course, there will be a 1st degree black belt test for participating students.

1 semester hour

MARTIAL ARTS STUDIES 121
Taiji Practicum 1
This course introduces the student to Martial Arts of Taiji including the performance of the first part of the Yang Style short form. It includes an introduction to Taiji principles, and will work to expand the student's range of motion, coordination, and introduce students to Qigong level 1 training on exercises one to five. It will introduce and compare the major Taiji styles and note how they differ from each other. Fighting applications of Taiji (as well as the health applications) will be presented. The concepts of flexibility and range of motion are introduced as tools to explain Taiji principles. Practicum 1 will also introduce physical principles of head suspended; the pelvis tucked in with toe in and knee out; relaxed execution of smooth movements; exercises for overall coordination of the body and the mind-body connection. This practicum presents the first 16 movements of the Yang Style Short Form. Students will learn to demonstrate the 16 movements and begin to incorporate the physical principles into the 16 Taiji movements. Students will learn the horse stance and bow stance and be introduced to the role that they play in Taiji movements. Emphasis is on slow and relaxed movement of the body as a single coordinated unit.

1 semester hour

MARTIAL ARTS STUDIES 122
Taiji Practicum 2
This course will include form correction of the first part of the Yang Style Short Form, further analysis of Taiji principles and a detailed application and study of the meaning of Taiji movements. Form correction incorporates the concept of qi into movement and into the execution of the form. The focus is on correctly executing the first 16 moves while observing Taiji's physical principles. This course will include body strengthening and alignment using Qigong training on exercises six to twelve. It also introduces the physical principles of the seesaw movement and the concave chest. Additional instruction is provided to strengthen the body to maintain proper alignment and balance throughout the form. Form correction further seeks to eliminate the reinforcement of poor execution caused by repeating incorrect form movements in the early stages of Taiji training. Taiji 2 expands basic Qigong training by introducing Qigong exercises to promote alignment and strength. Prerequisite: Marts 121 or Instructor's Approval based on Testing.

1 semester hour

MARTIAL ARTS STUDIES 123
Taiji Practicum 3
This course will introduce students to the second part of the Yang Style Short Form. Students will learn to incorporate Taiji principles into the form. At this stage, greater emphasis will be placed on integrated body movement and mind power (concentration) to move the body as a single unit and will include Qigong training level 5 on the entire set of exercises one to twelve. Taiji 3 reinforces the understanding of the physical principles (head suspended; pelvis tucked in with toe in and knee out; chest concave; body rounded; shoulders lowered; waist loose; ‘qua’ loose; and deep breathing). It introduces the skills required to incorporate the principles into Taiji learning and practice. The concepts of flexibility and range of motion are presented for discussion and written assignments. Research methods will be introduced to permit independent gathering of Taiji information for study and personal growth. Taiji 3 also presents Qigong training, continuing to prepare students physically for proper Taiji execution. Qigong exercises are more strenuous and are aimed at greater flexibility with longer strength-training periods. Prerequisite: Marts 122 or Instructor's Approval based on Testing.

1 semester hour

MARTIAL ARTS STUDIES 124
Taiji Practicum 4
This course will introduce the third part of the Yang Style Short Form. It will incorporate breathing techniques into the form and will...
introduce the concept of form assessment for the incorporation and execution of Taiji principles. It will build on earlier training to begin to introduce the martial arts applications of Taiji in preparation for push hands classes and Qigong training level 4 on the entire set (exercises one to twelve). This course will begin to prepare students to assume leadership roles in higher levels of study. Taiji 4 reviews Taiji’s principles and communicates how the Taiji form performance is assessed based on the principles. Both the self-defense aspects and the self-cultivation aspects (of body, mind & spirit) of the Yang Style Short Form will be presented. The class will stress ongoing individual Taiji training and students will be encouraged to develop individual Taiji training formats. This class also presents training and information required to lead Qigong classes on the entire set of twelve exercises. Prerequisite: Marts 123 or Instructor’s Approval based on Testing.

1 semester hour

MARTIAL ARTS STUDIES 212
The History of Martial Arts
This course traces the origins, growth and diversification of the Martial Arts in China, Korea and Japan. Emphasis is placed on the evidence of primary historical texts, including the Five Classics of pre-Qin China as well as early histories of Korea and Japan such as the Samguk Yusa and the Kojiki. The historical information gleaned from these sources is compared to the narratives and mythologies passed down through the written and oral traditions of the various schools. We examine the unfolding of the Shaolin Gongfu schools influenced by Chan as well as the Wudang tradition influenced by Daoism, the emergence of Martial Arts in the Hwarang movement of the Korean Silla kingdom and their revival after the Japanese occupation, and the transformation of Gongfu traditions in Japan via Okinawa.

3 semester hours

MARTIAL ARTS STUDIES 213
Martial Arts and East Asian Thought
This course examines the impact of East Asian philosophy and religion on the Martial Arts. The course begins by outlining the major teachings of Buddhism, Daoism, and to a lesser extent, Confucianism, focusing on key classics. Following this we will explore the ways in which these teachings came to influence what was originally a martial tradition, resulting in a variety of complex systems that placed greater emphasis on mental as well as physical powers, self-cultivation and personal fulfillment.

3 semester hours

MARTIAL ARTS STUDIES 214
Daoism and Taiji
This course will examine both the historical and conceptual relationship between Daoism and Taiji. It will examine ways in which key concepts of Daoism are reflected in Taiji practice. In the study of the history of the relationship between Daoism and Taiji, we will note the differences between the received tradition of this relationship (as transmitted from master to student in the pedagogical process) versus historical documentation that, through primary sources, independently confirms the longstanding ties between the two. In the review of the linkage between Daoism and Taiji we will focus on the cosmology of the Book of Changes, which informs the conceptual framework of Taiji, as well as influential Daoist concepts such as Wu Wei (No Action), Yin and Yang and passive values as depicted in the Laozi, Zhuangzi, the Book of Changes, and the Taijiquan Treatise.

3 semester hours

MARTIAL ARTS STUDIES 215
Taekwondo Practicum 5
This level of Taekwondo training focuses on the cultivation of self-control. Through this course, students are expected to achieve mastery of Taekwondo forms Goryo & Pal-Gae No. 1, intermediate self-defense techniques No. 1 & 2, kicking technique and board breaking with a focus on the Jump Axe kick and Jump Front kick, sparring techniques with a focus on Olympic style sparring offense combination skills, 1st degree black belt (level 7) Jump Axe kick breaking techniques and 1st degree black belt level 6 belt Jump Front kick breaking techniques.

1 semester hour

MARTIAL ARTS STUDIES 216
Taekwondo Practicum 6
This level of Taekwondo training focuses on the cultivation of self-confidence. Through this course, students are expected to achieve mastery of Taekwondo forms Pal-Gae No. 2 & 3, intermediate self defense techniques No. 3 & 4, kicking techniques with a focus on the Jump Roundhouse kick and Jump Side kick, sparring techniques with a focus on Olympic style sparring defense combination skills, 1st degree black belt level 5 Jump Roundhouse kick breaking techniques and 1st degree black belt level 4 belt Jump Side kick breaking techniques.

1 semester hour

MARTIAL ARTS STUDIES 217
Taekwondo Practicum 7
This level of Taekwondo training focuses on the cultivation of patience and endurance. Through this course, students are expected to achieve mastery of Taekwondo forms Pal-Gae No. 4 & 5, intermediate self defense techniques No. 5 & 6, kicking technique with a focus on the Jump Back kick and Jump Hook kick, sparring techniques with a focus on Olympic style sparring offense and defense combinations, 1st degree black belt level 3 belt Jump Missing kick breaking techniques and 1st degree black belt level 2 belt Jump Roundhouse kick breaking techniques.

1 semester hour
Martial Arts Studies

combination skills, 1st degree black belt level 3 Jump Back kick breaking techniques and 1st degree black belt level 2 belt Jump Hook kick breaking techniques.

1 semester hour

MARTIAL ARTS STUDIES 244 Taekwondo Practicum 8

This level of Taekwondo training focuses on the cultivation of self-esteem as well as self-control. Through this course, students are expected to achieve mastery of Taekwondo forms Pal-Gae No. 6 (guiding theme “water”), intermediate self defense technique No. 7, kicking techniques with a focus on the Jump Back Spinning Hook kick, sparring techniques with a focus on Olympic style sparring offense and defense combination skills and hand combination techniques, 1st degree black belt level 1 breaking Jump Back Spinning Hook kick techniques. After this level is completed, there will be the 2nd degree black belt test including a Martial Arts Essay test.

1 semester hour

MARTIAL ARTS STUDIES 251 Taiji Practicum 5

Practicum 5 introduces the ways in which beginning fighting techniques rely on movement from the Short Form. The intermediate practice (practica 5-8) are meant to provide a comprehensive grasp of the self-defense and martial arts aspects of Taiji through the acquisition of specific techniques and training. Systematic training is divided into 4 levels designed to educate students in basic self-defense techniques and internal strength training up to the competitive Martial Artist level. Practicum 5 emphasizes correction and improvement of the Short Form. Prerequisite: MARTS 251 or Instructor's Approval based on Testing.

1 semester hour

MARTIAL ARTS STUDIES 253 Taiji Practicum 7

Practicum 7 focuses on the application of the short form for self defense and it also emphasizes continued Short Form improvement. The intermediate practice (5-8) provide a comprehensive grasp of the self-defense and martial arts aspects of Taiji through the acquisition of specific techniques and training. Systematic training on this level is meant to help to prepare with the basic self-defense techniques and internal strength training needed to begin to compete on the level of a Taiji Martial Artist. Prerequisite: MARTS 252 or Instructor's Approval based on Testing.

1 semester hour

MARTIAL ARTS STUDIES 254 Taiji Practicum 8

Practicum 8 is meant to complete students' training in basic self-defense techniques and internal strength training to the level needed to be a Martial Artist who can participate in Taiji competitions. Practicum 8 focuses on punching & kicking techniques, footwork and endurance training. It also emphasizes correction and preparation of the Short Form for demonstration. In preparing students for graduation, Practicum 8 provides a comprehensive review of the Taiji topics and techniques introduced in earlier practices. Prerequisite: MARTS 253 or Instructor's Approval based on Testing.

1 semester hour

MARTIAL ARTS STUDIES 261 Psychosocial Aspects of Martial Arts

The present course introduces students to the Western concepts of psychosocial development and self-actualization and to the East Asian concept of self-cultivation. It then identifies the character development objectives of three different martial arts—Taiji, Taekwondo, and Judo. It follows with an examination of research on the psychological impact of practicing martial arts, with an emphasis on self-concept, self-esteem, mood, phenomenology, psychological health, psychotherapeutic outcomes, and self-actualization. In addition, the course examines the impact of the martial arts on aggression and hostility, sex discrimination and feminist awareness, and traditionalism versus modernization.

3 semester hours

MARTIAL ARTS STUDIES 278 Survey of the Martial Arts

This course introduces the theoretical foundations of a variety of Martial Arts, including Taiji, Gongfu, Taekwondo, Hapkido, Karate, Judo, and Jujitsu. Through video, demonstrations, and other modalities students will also be exposed to the major techniques used in each of the Martial Arts introduced.

3 semester hours

MARTIAL ARTS STUDIES 311 Communication and Martial Arts

This course is designed to introduce Martial Arts Studies students to the concepts and practices of intercultural communication. Topics will include Martial Arts and nonverbal communication, Martial Arts and verbal communication, the influence of culture on communication and intercultural conflict resolution. The course will be conducted in the context of the martial artist as a leader and as a communicator. The martial artist will be viewed as a communicator both in the role of instructor and in the role of manager.

3 semester hours

MARTIAL ARTS STUDIES 312 Image and Reality in the Martial Arts

This course explores popular concepts about the Martial Arts as depicted in modern media, particularly cinema and television, and contrasts them with historical and literary perspectives drawn from East Asian classics and Martial Arts texts.

3 semester hours

MARTIAL ARTS STUDIES 319 Taekwondo Practicum 9

This level of Taekwondo training focuses on enhancing team spirit and cooperation. Through this course, students are expected to achieve mastery of Taekwondo form Keum-kang (guiding theme “wisdom and virtuosity”), advanced self defense techniques No. 1 & 2, kicking technique with a focus on the Double Front kick and Double Roundhouse kick, sparring techniques with a focus on Olym-
pic style offense strategy skills, 2nd degree black belt level 7 Double Front kick breaking techniques and 2nd degree black belt level 6 belt Double Roundhouse kick breaking techniques. Beginning with the achievement of the 2nd degree black belt, students are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 320
Taekwondo Practicum 10
This level of Taekwondo training focuses on cultivating the sense of personal achievement. Through this course, students are expected to achieve mastery of Taekwondo form Taebae (guiding theme “human”), advanced self-defense techniques No. 3 & 4, kicking technique with a focus on Double Roundhouse kick breaking techniques and 2nd degree black belt level 7 belt Double Roundhouse kick breaking techniques. Students in this class are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 321
Taekwondo Practicum 11
This level of Taekwondo training focuses on cultivating dedication to goals and ideals. Through this course, students are expected to achieve mastery of Taekwondo form Sipin (guiding theme “nature’s 10 ideas”), advanced self-defense techniques No. 5 & 6, kicking technique with a focus on the Double Hook kick breaking techniques and 2nd degree black belt level 3 belt Double Hook kick breaking techniques. Students in this class are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 322
Taekwondo Practicum 12
This level of Taekwondo training focuses on cultivating humility. Through this course, students are expected to achieve mastery of Taekwondo form Keumkang (guiding theme “wisdom and virtue”), advanced self-defense techniques No. 7, kicking technique with a focus on the Tornado kick breaking techniques and 2nd degree black belt level 1 breaking techniques of Tornado kick. After this level is completed, there will be the 3rd degree black belt test including a Martial Arts Essay test. In this class, students are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 323
Taekwondo Practicum 13
This level of Taekwondo training focuses on enhancing the sense of magnanimity and service to others. Through this course, students are expected to achieve mastery of Taekwondo form Jitae (guiding theme “human and nature”), high advanced self-defense techniques No. 1 & 2, kicking technique with a focus on the Jump Point kick and Jump Scissor kick breaking techniques and 3rd degree black belt level 6 belt Jump Scissor kick breaking techniques. Students in this class are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 324
Taekwondo Practicum 14
This level of Taekwondo training focuses on cultivating social and leadership skills. Through this course, students are expected to achieve mastery of Taekwondo form Cheonkwon (guiding theme “universal”), high advanced self-defense techniques No. 3 & 4, kicking technique with a focus on the Jump Split Front kick breaking techniques and 3rd degree black belt level 6 belt Jump Split Front kick breaking techniques. Students in this class are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 325
Taekwondo Practicum 15
This level of Taekwondo training focuses on the cultivation of ethical thinking. Through this course, students are expected to achieve mastery of Taekwondo form Hansoo (guiding theme “water”), high advanced self-defense techniques No. 5 & 6, kicking technique with a focus on the Jump Triple Front kick breaking techniques and 3rd degree black belt level 4 belt Jump Triple Front kick breaking techniques. Students in this class are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 326
Taekwondo Practicum 16
This level of Taekwondo training focuses on consolidating the various aspects of self-cultivation. Through this course, students are expected to achieve mastery of Taekwondo form Ilyo (guiding theme “mind/body unity”), high advanced self-defense techniques No. 7, kicking technique with a focus on the Creative kick, sparring techniques with a focus on the meaning of sparring, 3rd degree black belt level 1 Creative kick breaking techniques. Upon the completion of this level, students will have the 4th degree black belt test including both a practical test and a written examination. Students in this class are qualified to serve as teaching assistants.

1 semester hour

MARTIAL ARTS STUDIES 330
Internship
Senior level students of the Martial Arts Studies degree program should complete an internship at an established Martial Arts school or in a business, or government agency. The internship will be complemented by a written report and will be done under the supervision of a professor.

3 semester hours

MARTIAL ARTS STUDIES 340
Senior Thesis or Presentation
The senior thesis or a creative presentation based on the Martial Arts emphasizes research and research methods. This course may only be taken after having completed 90 semester hours or more in the program. If a student elects to write a thesis, his/her work will be expected to demonstrate a theoretical understanding of the Martial Arts (e.g., technical, philosophical, and historical) and their relationship with the broader cultural, philosophical, and social context in which they evolved. Independent research and creative thinking will be emphasized as well as the ability to gather and conduct research and formulate a position in a critical and analytical manner. Students choosing to do a presentation based on their Martial Arts skills would normally do
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so both to demonstrate their technical mastery of the Martial Arts as well as their creativity. The senior presentation might consist of projects such as the creation and performance of a new form or the adaptation of a Martial Arts form to music or to poetry. The presentation should show ways in which the Martial Arts contribute to a broader socio-cultural context.

3 semester hours

MARTIAL ARTS STUDIES 351
Taiji Practicum 9
Practicum 9 focuses on the first part of the Long Form with an emphasis on continuity of movement and on new moves not included in the Short Form. Practicum 9 and above are designed for students who enter the Martial Arts of Taiji track with advanced standing. Beginning with this practicum, systematic training is designed to build on basic and intermediate Taiji knowledge in self defense and in physical strength training that is meant to bring students to the level of accomplished Martial Artists. Study includes emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Prerequisite: MARTS 253 Taiji Practicum 8 or successful testing into the program for those who studied Taiji prior to coming to the University of Bridgeport.

1 semester hour

MARTIAL ARTS STUDIES 352
Taiji Practicum 10
Practicum 10 introduces the second part of the Long Form. Systematic training in this practicum is designed to build on basic and intermediate Taiji knowledge in self defense and in physical strength training to bring students to the level of accomplished Martial Artists. Study includes emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum 10 again stresses continuity of movement, coordination and presents new Taiji movements that are not found in the Short Form. Students are introduced to the Qi Gong 10 exercise set. Prerequisite: MARTS 351 Taiji Practicum 9.

1 semester hour

MARTIAL ARTS STUDIES 353
Taiji Practicum 11
In practicum 11 students are introduced to the third part of the Long Form. Systematic training in advanced practica is designed to build on basic and intermediate Taiji knowledge in self defense and in physical strength training to bring students to the level of accomplished Martial Artists. Study includes emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum 11 stresses continuity of movement and coordination. In this Practicum, students are introduced to additional new Long Form movements, not included in the Short Form. They continue the study and application of the Qi Gong 10 exercise set. Prerequisite: MARTS 352 Taiji Practicum 10.

1 semester hour

MARTIAL ARTS STUDIES 354
Taiji Practicum 12
Practicum 12 includes the Long Form correction and places emphasis on coordination and continuity of (108) movements. It also continues with the Qi Gong 10 exercise set. The advanced practica provide a comprehensive grasp of Taiji through the acquisition of sets of advanced techniques. Systematic training in practica 9-16 is designed to build on basic and intermediate Taiji knowledge in self defense and in physical strength training to bring students to the level of accomplished Martial Artists. Study includes emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum 12 prepares each student to perform a demonstration of the combined Long and Short forms. This practicum serves as a comprehensive review of Taiji topics and techniques prior to graduation. Prerequisite: MARTS 353 Taiji Practicum 11.

1 semester hour

MARTIAL ARTS STUDIES 355
Taiji Practicum 13
Practicum 13, along with continuing the study of Long Form technique, provides an introduction to the role of meditation in martial arts and introduces meditation techniques. Each advanced practicum represents an additional step toward the student developing a comprehensive grasp of Taiji through the acquisition of sets of advanced techniques. Systematic training in practica 9-16 is designed to build on basic and intermediate Taiji knowledge in self defense and in physical strength training to bring students to the level of accomplished Martial Artists. Study includes emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum 13 continues the emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum 13 prepares each student to perform a demonstration of the combined Long and Short forms. This practicum serves as a comprehensive review of Taiji topics and techniques prior to graduation. Prerequisite: MARTS 354 Taiji Practicum 12.

1 semester hour

MARTIAL ARTS STUDIES 356
Taiji Practicum 14
Practicum 14 introduces advanced Taiji fighting techniques. Systematic training in practica 9-16 is designed to build on basic and intermediate Taiji knowledge in self defense and in physical strength training to bring students to the level of accomplished Martial Artists. Study includes emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum includes light contact sparring and introduces students to the role that the forms play in self-defense. Prerequisite: MARTS 355 Taiji Practicum 13.

1 semester hour

MARTIAL ARTS STUDIES 357
Taiji Practicum 15
Practicum 15 continues the systematic training designed to build on basic and intermediate Taiji knowledge in self-defense and physical strength training to help bring students to the level of accomplished Martial Artists. In Practicum 15 students are introduced to the philosophy of qi and are provided with an understanding of how qi relates to the meridian chart, to alignment, and to the body's internal systems. Prerequisite: MARTS 356 Taiji Practicum 14.

1 semester hour

MARTIAL ARTS STUDIES 358
Taiji Practicum 16
Practicum 16 represents the highest level of training in Taiji at the University. It is meant to contribute to the students' comprehensive grasp of Taiji because of their acquisition of proficiency in sets of advanced techniques. This course is meant to build on basic and intermediate Taiji knowledge in self defense and in physical strength training in previous practica to bring students to the level of accomplished Martial Artists. Study in this practicum continues the emphasis on self-cultivation (body and mind), internal strength training and cultivation of qi. Practicum 16 prepares each student to perform a demonstration of the combined Long and Short forms. This practicum serves as a comprehensive review of Taiji topics and techniques prior to graduation. Prerequisite: MARTS 357 Taiji Practicum 15.

1 semester hour

Mass Communication

MASS COMMUNICATION 110
Public Communication
The process and variables of everyday public address are examined through situations, content, presentation strategies and effects,
and by classroom practice in the basic principles of oral communication.
3 semester hours

MASS COMMUNICATION 111 Introduction to Mass Communication
The role and function of the mass media. Survey of newspapers, magazines, books, radio, television, film, advertising and public relations. Criticism, challenges and professional opportunities.
3 semester hours

MASS COMMUNICATION 200 Co-Operative Education
Professional, supervised work in an organization related to career goals. Prerequisite: Permission of department required.
1-3 semester hours

MASS COMMUNICATION 201 Persuasive Communication
Study of communication as a form of influence; the process and functions involved, its potential and limitations; social and personality factors related to persuasibility, attitude formation and change. Students will analyze and present persuasive messages.
3 semester hours

MASS COMMUNICATION 205 Interpersonal Communication
An introductory survey of interpersonal communication theories and their application to face-to-face, group, organizational and mediated contexts. The classroom becomes a laboratory for gaining knowledge of the processes of communication, perception, language and meaning.
3 semester hours

MASS COMMUNICATION 211 Communication Theory
An examination of communication theories which includes theories on verbal communication, nonverbal communication, interpersonal communication, self-concept, relationship development, influence, conflict, group communication, decision-making, gender communication, organizational communication, intercultural communication, and media communication.
3 semester hours

MASS COMMUNICATION 218 Media Aesthetics
The artistic philosophy and practical applications of creating effective media. This is a hands-on laboratory course. The study focuses on aesthetics as a physical expression of creative and marketing goals and how this is put into practice when communicating messages through images and words. Subjects include compositional strategy, visual literacy and message design. This knowledge shapes design critical to working in new media and every other type of media produced—documents, ads, brochures, video, proposals, and more. This course will offer an introduction to Photoshop. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 220 Introduction to Advertising
An examination of the theories and practices of advertising. Historical, legal, and social psychological aspects of advertising. Advertising explored from both client side and agency side perspectives. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 235 Writing for Media
This course is an introduction to media writing. Students will practice writing and editing news, public relations materials, broadcast scripts, and advertising copy. It includes a grammar and style review specifically for print and interactive media.
3 semester hours

MASS COMMUNICATION 237 News Reporting & Writing
Introduction to reporting techniques – sources of news, interviewing, public document and database searches – and their application in writing various forms of news stories. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 240 Writing for Interactive Media
A comprehensive overview in planning, organizing and creating a web site. The course features emphasis on creative and communications imperatives in web page creation including design, layout, navigation and usability. This course offers the use of Dreamweaver. Topics include web site types, structures, the importance of the home page, understanding screen real estate and how to use it effectively, white space, typography, titles and headlines, search engines and how to get listed and many other issues and topics related to effective web page creation. Instructor’s permission may be required for this course.
3 semester hours

MASS COMMUNICATION 242 Introduction to New Media
An overview of computer-based media, technology and the digital information age. This primer includes history, current digital media, a look at technology trends and the future of digital media. Topics include computers—their origins and functions; hardware and software; file management; networks; data security; E-Commerce; the Internet—its history and development; the basis of interactivity between humans and machines, and machine to machine; and other timely issues. Instructor’s permission may be required for this course.
3 semester hours

MASS COMMUNICATION 247 Fashion Journalism
This course covers the basic elements of fashion journalism for magazines (women’s and men’s) and newspapers. Students will analyze examples of fashion journalism and will learn fashion writing, photo shoot coordination (planning, styling, budgeting, etc.), and copy preparation. Instructor’s permission may be required for this course.
3 semester hours

MASS COMMUNICATION 251 Sports Business and Marketing
This course provides an overview of major sports business issues. It covers professional, Olympic, collegiate sports, studies sports as a business, and discusses sports marketing, promotion, and sports sponsorships. Instructor’s permission may be required for this course.
3 semester hours

MASS COMMUNICATION 252 Introduction to Web Publishing
A comprehensive overview in planning, organizing and creating a web site. The course features emphasis on creative and communications imperatives in web page creation including design, layout, navigation and usability. This course offers the use of Dreamweaver. Topics include web site types, structures, the importance of the home page, understanding screen real estate and how to use it effectively, white space, typography, titles and headlines, search engines and how to get listed and many other issues and topics related to effective web page creation. Instructor’s permission may be required for this course.
3 semester hours

MASS COMMUNICATION 255 Writing for Interactive Media
Understanding the Internet as an information vehicle and how the role of the writer is more than just creating strong text. This course of-
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fers discussion and hands-on work in the art and science of effective organization, preparation, writing and editing for the interactive media audience. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 270
Public Relations
Current practices and problems, with emphasis on the role of the public relations practitioner as a specialist in communications, analyst of public opinion, and counselor to the major sponsors of public communication. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 272
Creating Digital Media
From pre-production through post-production, video production technique for digital media is explored. Lectures and projects will lead students to a greater understanding of message direction, aesthetics and finessing a project through conclusion. This course is designed as an introductory primer to the creation of digital video. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 284
Business and Professional Communications
Understanding and development of communications skills necessary for individuals to function effectively in business and corporate roles. Special consideration given to the verbal and nonverbal elements of the work situation: barriers to communications, listening skills, interviewing, instructional skills, forms of negotiation, technical reports, and principles of group behavior. Students' skills are assessed relative to the levels of communication required in various career areas and cultural milieus.

3 semester hours

MASS COMMUNICATION 290
Intercultural Communication
Study of basic concepts, theories, and practices of intercultural communication, including elements of cultural systems, social identification and group relations, influence of culture, language and culture, nonverbal communication, intercultural negotiation, and intercultural conflict resolution. Intercultural communication as applied to interpersonal communication, group communication, organizational communication, public communication, and mass communication. Communication principles will be applied to intercultural interaction so that misunderstanding, prejudice, stereotypes, and discrimination can be reduced or eliminated.

3 semester hours

MASS COMMUNICATION 303
Communication and Group Decision-Making
Study of group communication patterns, group functions, group dynamics, and theories of group communication. Special attention given to listening, formation of messages, critical thinking, decision-making process, leadership, group conflicts, problem solving, and techniques for effective group communication.

3 semester hours

MASS COMMUNICATION 306
Argumentation and Debate
Knowledge and practice in the craft of research and reasoning in argumentative communication. Practice in analysis, evidence, briefing, refutation, and delivery of arguments.

3 semester hours

MASS COMMUNICATION 323
Advertising Copywriting
Critical study and application of communication principles and concepts as applied to planning and preparing advertising messages. Intuitive verses research based aspects of advertising creativity. Writing and visualization for print, broadcast, and new media. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 330
Advertising Media Planning
An investigation of various mass media audiences' characteristics, preferences and composition and how that information is obtained and used in planning media strategy in advertising. Topics include characteristics and evaluation of major media rates and sources of information; problems of coverage, duplication, costs and scheduling. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 333
TV Commercials
Study how advertising strategies are translated into creative briefs and message strategies that guide the creative process. Special consideration is given to the roles of TV commercials, the format elements of TV commercials, the advantages of TV commercials, the creative process of designing TV commercials, and the creation of TV commercials. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 339
Advertising and Public Relations Campaigns
In-depth analysis and practice in strategies and tactics employed in creating advertising and public relations programs for clients. Principal focus on working on a competitive group project preparing an agency-style presentation for a real or hypothetical client. Instructor's permission may be required for this course. Prerequisites: Mass Communication 220, 323, 330.

3 semester hours

MASS COMMUNICATION 340
The Community Newspaper
A total working environment centered about the publication of a community newspaper. Reporting, coverage of beats, interviews, handling complex stories and in-depth news reports. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 341
Magazine and Feature Writing
An in-depth experience of writing for periodicals. Focus is on the additional research and preparation needed for this medium. Principles of advocacy and rhetoric and their relevance in the news media are explored. Instructor's permission may be required for this course.

3 semester hours

MASS COMMUNICATION 342
Digital Project Management
Students work in teams to create and produce an original web site or extensively improve an existing one, working in conjunction with a real-world client. The work is performed in a real-life, deadline driven environment and will produce a portfolio piece for those entering the field of digital media. Students learn the roles and duties of those who work on interactive teams. Instructor's permission may be required for this course. Prerequisite: MCOM 252 Introduction to Web Publishing

3 semester hours
Mass Communication

MASS COMMUNICATION 345
Newspaper Editing and Production
Principles of editing in print media. The editorial process from selection of editorial materials to publication. Analysis of contemporary editing styles. Preparation of materials for production, including copyediting, writing headlines and designing newspaper pages. Legal and ethical issues confronting newspaper editors. The editor-writer relationship. Laboratory training in the making of editorial judgments. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 346
Media Management
Examination of the internal functioning and management practices related to the various media institutions. Discusses management by objectives, work plans, analysis methods, budget-setting, research planning, message strategy and plans, media/channel strategy and plans, and evaluation methods related to communication activities. Emphasis is on developing integrated approaches to solving communication problems under changing environmental conditions. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 352
Advanced Web Publishing
This course sets out to define and apply advanced concepts of HTML and introduce JavaScript and CGI scripting. Students will develop data driven sites incorporating scripting and advanced HTML concepts, combining technical skills with professional design approaches. Instructor's permission may be required for this course. Prerequisite: MCOM 252 Introduction to Web Publishing
3 semester hours

MASS COMMUNICATION 354
Media, Sports, and Society
This course studies the relationship between and among media, sports, and society. It examines media coverage of sports, the mediated sports culture, sports and politics, the spectators' enjoyment of sports violence, the dark side of competition, and gender and ethnicity issues in sports. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 356
Broadcast News Writing
A course on writing news for broadcast media. Emphasis on broadcast style, specificity of language, time constraints, writing to tape and other actualities, and other considerations unique to radio and television news. Instructor's permission may be required for this course. Prerequisite: MCOM 240.
3 semester hours

MASS COMMUNICATION 364
International Journalism
This course examines the practices of news-gathering, news making and news reporting in different countries. It also studies international news agencies, issues of freedom of the press, global information flow, new world information order, media development and barriers to media development, cultural imperialism, the relationship between Western media and world media, foreign news reporting, and media and international relations. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 357
The Portfolio Project
The semester is spent creating professional portfolios students can use to seek employment. This is a highly specialized, hands-on class where actual portfolios are created to help students obtain work in their specific area of interest - advertising, public relations, sports media, new media, broadcast, non broadcast, production, and many more. Prerequisites: Juniors and Seniors who already have portfolio pieces created from prior classes. Sophomores upon instructor's approval.
3 semester hours

MASS COMMUNICATION 370
Publicity Methods
Elements of publicity writing for mass media. Students may work for not-for-profit organizations in planning and implementing publicity campaigns or other public relations projects. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 372
Advanced Digital Video Creation
The semester is devoted to the creation and execution of one project which could potentially be used as a "reel" sample to find work in the digital video, advertising or public relations industries. Each student will work on a project most suitable to their ultimate career objective. Choices of projects might include: documentary, news stories, video news releases, product demonstration, training videos, and many others. Instructor's permission may be required for this course. Prerequisite: MCOM 272 Creating Digital Video.
3 semester hours

MASS COMMUNICATION 384
Organizational Communication
Communication in formal organizations, such as schools, industry, hospitals, and government, with emphasis on how organizational variables affect communication behavior of humans at work. Simulation, role-playing, case method, and videotape are used as techniques for evaluating personal and organizational effectiveness.
3 semester hours

MASS COMMUNICATION 390
Media Law and Ethics
Legal interpretations and standards of judgment that affect the reporter and the mass media. Theory of the First Amendment. Problems of libel, privacy, censorship, contempt, news source protection. Relationship of media regulations to community standards and social mores. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 395
Senior Seminar in Mass Communication
A senior seminar, with emphasis on the analysis of mass media institutions, content, function, and policy. Problem-centered approach, requiring experimentation in media forms and journalistic inquiry. Prerequisite: Senior standing within the Department of Mass Communication. Instructor's permission may be required for this course.
3 semester hours

MASS COMMUNICATION 398
Internship
Professional, supervised, unpaid work in an organization related to career goals. Prerequisite: Permission of department required.
3 semester hours

MASS COMMUNICATION 399
Independent Study
Advanced project not covered by a regular course offering. Term paper or other academ-
ic fulfillment project is required. Faculty sponsor must be secured in advance. Prerequisite: Permission of the department and school director is required.

By arrangement; 1-6 semester hours

Mathematics

MATHEMATICS 98
Elementary Algebra
An introductory course in basic algebra with applications. Topics include fundamental operations, fractions, exponents, radicals, factoring, linear equations and systems, linear inequalities and quadratic equations.

0 semester hours

MATHEMATICS 100
Elementary Algebra
An introductory course in basic algebra with applications. Topics include fundamental operations, fractions, real numbers, algebraic equations, linear equations and inequalities, exponents and polynomials, factoring and rational equations. This is a course for those students who are not ready for Math C105, Intermediate Algebra. This course is a three university semester hour course which means it does not meet distribution requirements or count toward the minimum semester hour requirement for graduation. This course is not open to students who have passed the Math Placement Exam (Basic Algebra Exam) or passed MATH C105 or above.

3 semester hours

MATHEMATICS C105
Intermediate Algebra
A survey course in selected topics from college algebra and elementary functions. This course satisfies the Core Curriculum Basic Skills mathematics requirement. Topics include set notion, number systems, rules of algebra, operations with polynomials, factoring, linear equations and inequalities, solving polynomial equations, linear systems, and functions. Prerequisite: “C” or better in MATH 100 or Mathematics Placement Exam.

3 semester hours

MATHEMATICS C105A
Intermediate Algebra
A survey course, covered at a slower pace than Math C105, in selected topics from college algebra and the elementary functions. Prerequisite: “C” or better in MATH 100 or Mathematics Placement Exam.

3 semester hours

MATHEMATICS 107
The Nature of Mathematics
A survey course of mathematics drawn from areas of algebra, logic, sets, geometry, combinatorics, probability and statistics. Includes applications of mathematics and the use of logical and quantitative reasoning. Prerequisite: Mathematics Placement Exam

3 semester hours

MATHEMATICS 108
Ideas of Mathematics
A survey of mathematical ideas and their applications. The course will focus on five core areas: logic, algebraic systems, functions and graphs, analysis, and probability and statistics. Applications will be drawn from the social sciences, natural sciences, arts and technology. The course will introduce the use of graphing calculators and computer applications software as tools to enhance creative thinking. Intended for non-specialists, the course will explore the beauty and power of mathematical reasoning through problem-solving and readings. Prerequisite: Competency in high school level Intermediate Algebra as demonstrated by the University placement exam or completion of MATH C105 with a “C” or better.

4 periods, (3 lecture/1 lab); 3 semester hours

MATHEMATICS 109
Precalculus Mathematics

4 semester hours

MATHEMATICS 110
Calculus and Analytic Geometry I

4 semester hours

MATHEMATICS 200
Elementary Statistics
A non-calculus introduction to applied statistics for business, life and social science students. Probability. Classification of data, averages, dispersion, frequency distributions, confidence intervals, and test of significance. Elementary linear regression and correlation. The course will make use of statistical software. Prerequisite: “C” or better in MATH C105.

3 semester hours
MATHEMATICS 214
Linear Algebra
System of linear equations and matrix algebra, determinants, vector spaces, eigenvectors, linear transforms and inner product spaces. Prerequisite: “C” or better in MATH 110.
3 semester hours

MATHEMATICS 215
Calculus and Analytic Geometry III
Vector algebra and calculus and the geometry of space. Functions of several variables and partial differentiation. Directional derivatives and the gradient vector. Maximum and minimum values and Lagrange multipliers. Multiple integrals. Rectangular, cylindrical and spherical coordinates. Vector fields, del operators and vector integral theorems. Prerequisite: “C” or better in MATH 112.
4 semester hours

MATHEMATICS 227
Discrete Structures
This course is an introduction to some of the discrete mathematical structures relevant to computer science, including set theory, propositional calculus, predicate calculus, algebraic operations and relations, counting techniques and graph theory. Required of Math majors. Identical to Computer Science 227. Prerequisite: “C” or better in MATH 109.
3 semester hours

MATHEMATICS 314
Numerical Methods
A first course dealing with basic numerical methods for finding roots of non-linear equations, interpolation theory, approximation of functions, numerical integration and differentiation, numerical solutions of systems of linear equations, the matrix eigenvalue problem and the numerical solutions of ordinary differential equations. Prerequisite: CPSC 101 and “C” or better in MATH 112.
3 semester hours

MATHEMATICS 319
Introduction to the Theory of Numbers
3 semester hours

MATHEMATICS 323
Probability and Statistics I
Classical theory of probability. Sample spaces, probability and conditional probability, random variables and their distributions. Standard discrete distributions, normal distributions, moment generating functions and central limit theorems. Prerequisite: “C” or better in MATH 112.
3 semester hours

MATHEMATICS 341 (MATH 341/CPSC 341)
Operations Research
Linear programming formulation of optimization problems, hyper planes, convex sets, linear independence, bases of vector spaces, matrix inversion, theory and computation techniques of simplex, revised simplex methods, degeneracy, duality. Transportation and assignment problems, integer programming and network flows. Prerequisite: “C” or better in MATH 214, CPSC 227.
3 semester hours

MATHEMATICS 393
Senior Seminar in Mathematics
This course is, in part, designed to acquaint the participants with mathematics reference works, resource materials, periodicals, and expository writings. Each student is required to write several papers and to make periodic oral presentations. Visiting speakers conduct some of the seminars. Required of mathematics majors and normally taken in the junior or senior year. Prerequisite: “C” or better in MATH 214 or permission of instructor.
3 semester hours

MATHEMATICS 399
Independent Study
Prerequisite: Permission of Division Director. The following mathematics courses, described in the Graduate Section are also open to seniors. Prerequisites: Math 301 (Differential Equations), or permission of the instructor.
3 semester hours

MATHEMATICS 401
Advanced Analysis for Scientists and Engineers I
Partial differential equations, Bessel functions, Legendre polynomials. Fourier series, boundary and initial value problems, topics in vector analysis, tensor analysis. Prerequisite: Math 301 (Differential Equations), or permission of the instructor.
3 semester hours

MATHEMATICS 402
Advanced Analysis for Scientists and Engineers II
Functions of a complex variable conformal mapping, calculus of residues, operators. Prerequisites: Math 301 (Differential Equations), or permission of the instructor.
3 semester hours

Mechanical Engineering

MECHANICAL ENGINEERING 223
Materials Science for Engineers
A study of the properties of materials of importance to engineers. Structure-property-processing relationships. Mechanical, physical and electrical properties of metals, ceramics and polymers. Prerequisite: CHEM 103.
3 semester hours

MECHANICAL ENGINEERING 309
Fluid Mechanics II
Continuation of first course in fluid mechanics. Introduces the student to more advanced topics including laminar and turbulent boundary layer theory, lift and drag, subsonic and supersonic compressible flow, introduction to turbo-machinery and introduction to computational fluid mechanics. Prerequisites: Permission of the instructor.
3 periods; 3 semester hours; 1 design semester hour

Medical Laboratory Science (MLSC)

MEDICAL LABORATORY SCIENCE 301
Phlebotomy
Introduction to the theory and practice of phlebotomy and laboratory safety. Pre-analytical, analytical and post-analytical components of laboratory service. Introduction to the principle and practice of quality assurance and quality improvement.
2 Semester hours

MEDICAL LABORATORY SCIENCE 310
Intro to Hematology
Lecture/laboratory course that emphasizes basic hematologic principles. Manual and automated procedures are performed. Emphasis on morphology and clinical applications. The course includes hemostasis and components in the blood related to hemostatic mechanisms. Includes principles of procedures involved and their relationship to diagnosis and treatment of disease. Prerequisite: BIOL 102
Medical Laboratory Sciences

with a C or better. Recommend MLSC 315 or Bio 114 as a pre-requisite for Biology majors. 2 semester hours

MEDICAL LABORATORY SCIENCE 311
Intro to Clinical Chemistry
Lecture/laboratory course focusing on clinical significance and methodology of carbohydrates, proteins, lipids, enzymes, electrolytes, blood gases, acid-base balance, liver function, kidney function, and endocrinology. Emphasis on quality control as it applies to selected clinical chemistry procedures. Review of lab math and statistics. Prerequisite: CHEM 380 with a C or better. 3 semester hours

MEDICAL LABORATORY SCIENCE 314
Intro to Immunohematology
Lecture/laboratory course emphasizing immunohematologic concepts and properties underlying scientific principles of blood banking. Includes theory and practical applications of blood-group systems, antibody identification and compatibility testing, hemolytic disease of the newborn, autoimmune hemolytic anemia, and donor testing introduction to procurement and processing. Prerequisite: BIOL 102 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 315
Fundamentals of Medical Laboratory Science
Lecture and laboratory introduction to Medical Lab sciences. Topics to include: Safety, Professionalism, Introduction to all areas of the modern clinical laboratory (Chemistry, Hematology, Microbiology, Immuno/Serology), Blood banking with a special emphasis on Clinical Microscopy and urinalysis. Prerequisite: Bio102, Chem 103 with a C or better 2 semester hours

MEDICAL LABORATORY SCIENCE 317
Mycology/Parasitology/Virology
Overview of medically significant fungi, parasites, and viruses. Emphasis will be placed on pathogenesis, modes of transmission, and identification. Laboratory techniques used in isolation, cultivation, and identification will be used. Also included will be discussions of epidemiology and host response regarding these microorganisms. Prerequisite: BIOL 101 or BIOL 332, both with a C or better. 4 semester hours

MEDICAL LABORATORY SCIENCE 320
Pre-clinical Seminar
An introduction to the profession of clinical laboratory science, review of Ethics and professionalism, confidentiality, health care issues, application of safety and government regulations and standards, customer service, interpersonal and interdisciplinary communication and team building skills, UBMLSC policy manual student handbook review, preparation for clinical interviews, resume writing, laboratory organization, roles, and credentialing of laboratory practitioners are discussed. Standards, ethics, and current professional issues are examined. Communication skill development and review of scientific literature are included. Review for the successful completion of the clinical readiness examination. 1 semester hour

MEDICAL LABORATORY SCIENCE 321
Clinical Seminar I
Educational methodology, including objective and examination, writing and item analysis, curriculum design and evaluation of Cognitive, affective and psychomotor domains. Accreditation, Certification and licensure related issues. Dynamics of the health care delivery system as it relates to the clinical laboratory and services. 1 semester hour

MEDICAL LABORATORY SCIENCE 322
Clinical Seminar II
Introduction to human resource and financial management, Lab operations including critical pathways and clinical decision making, performance improvement, lab information systems LIS, personnel management and financial management of a clinical laboratory. Advanced principles and practices of quality assurance and quality improvement, Career advancement and planning, Professionalism, CMP. 1 semester hour

MEDICAL LABORATORY SCIENCE 323
Medical Microbiology
This course is taught in conjunction with the Bio332 Medical microbiology course, the laboratory section is open to MLS majors and focuses on techniques used for the identification of microorganisms in a clinical laboratory. Pre-requisite Bio 320 with a C or better. 4 semester hours

MEDICAL LABORATORY SCIENCE 324
Phlebotomy Internship
Performance and observation of various phlebotomy techniques in potentially both inpatient and outpatient settings. 2 semester hours

MEDICAL LABORATORY SCIENCE 340
Advanced Hematology
Lecture/laboratory focusing on advanced principles of hematologic testing leading to improved interpretative skills in hematology. Emphasis on correlation of data with disease states and disorders. Case studies and discussion used to illustrate the pathophysiology of hematological dysfunction. Prerequisite: MLSC 310 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 341
Advanced Clinical Chemistry
Lecture/laboratory focusing on clinical significance and methodology of trace elements, vitamins, therapeutic drug monitoring, and toxicology. Newer testing methods used to identify diseases/disorders will be discussed. Emphasizes instrument selection and method validation process. Prerequisite: MLSC 311 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 344
Advanced Immunohematology
Lecture/laboratory focusing on problem-solving and special techniques used in antibody identification and compatibility testing. Also includes a discussion of donor requirements, blood component preparation and therapy, and quality assurance in the blood bank/transfusion service. Prerequisite: MLSC 314 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 380
Phlebotomy Internship
Performance and observation of various phlebotomy techniques in potentially both inpatient and outpatient settings. 2 semester hours

MEDICAL LABORATORY SCIENCE 381
Advanced Hematology
Lecture/laboratory focusing on advanced principles of hematologic testing leading to improved interpretative skills in hematology. Emphasis on correlation of data with disease states and disorders. Case studies and discussion used to illustrate the pathophysiology of hematological dysfunction. Prerequisite: MLSC 310 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 382
Advanced Clinical Chemistry
Lecture/laboratory focusing on clinical significance and methodology of trace elements, vitamins, therapeutic drug monitoring, and toxicology. Newer testing methods used to identify diseases/disorders will be discussed. Emphasizes instrument selection and method validation process. Prerequisite: MLSC 311 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 383
Advanced Immunohematology
Lecture/laboratory focusing on problem-solving and special techniques used in antibody identification and compatibility testing. Also includes a discussion of donor requirements, blood component preparation and therapy, and quality assurance in the blood bank/transfusion service. Prerequisite: MLSC 314 with a C or better. 2 semester hours

MEDICAL LABORATORY SCIENCE 384
Clinical Hematology Laboratory Rotation (Clinical site)
Automated and manual methods of cell counting and differentiation are performed on blood and other body fluids. Instruction and experience in advanced instrumentation using automated cell counters and differential systems, coagulation and platelet analyzers, and special hematologic testing of white and red cells using cytochemistry techniques are provided to identify disease states and disorders. Prerequisite: MLSC. Successful completion of MLSC 310 with C or better. and successful completion of
the clinical readiness examination.
4 semester hours

MEDICAL LABORATORY SCIENCE 421
Clinical Chemistry Laboratory Rotation (Clinical)
Provides an opportunity to apply chemical and immunologic theory and practice to routine and special clinical chemistry procedures, toxicology, therapeutic drug monitoring, and urinalysis. Also includes immunologic procedures. Includes instruction and experience in the use, standardization, and maintenance of sophisticated laboratory analyzers. Prerequisite: MLSC 311 with a C or better and successful completion of the clinical readiness examination.
3 semester hours

MEDICAL LABORATORY SCIENCE 422
Clinical Microbiology Laboratory Rotation (Clinical)
Isolation and identification of clinically important bacteria, mycobacteria, and fungi including antibiotic susceptibility testing. Techniques for identifying parasites are included. Prerequisite: MLSC 311 with a C or better and successful completion of the clinical readiness examination.
4 semester hours

MEDICAL LABORATORY SCIENCE 424
Clinical Immunohematology Laboratory Rotation (Clinical)
Blood typing, antibody screening and identification, compatibility testing, and other immunohematologic procedures are included. Emphasis is on operation and problem-solving in a modern transfusion service. Prerequisite: MLSC 311 with a C or better and successful completion of the clinical readiness examination.
3 semester hours

MEDICAL LABORATORY SCIENCE 431
Clinical Correlation (Clinical)
Use of problem-based case studies to analyze clinical situations and correlate laboratory data. Prerequisite: Successful completion of the clinical readiness examination.
2 semester hours

MEDICAL LABORATORY SCIENCE 432
Clinical Research
A review of qualitative and quantitative research methods and statistics resulting in the completion of a clinical based technical or educational based research project.
1 semester hour

MEDICAL LABORATORY SCIENCE 441
Immunology
This course is taught in conjunction with the Bio441 immunology course, the laboratory section is devoted to immunologic and serologic techniques utilized in a clinical laboratory. Pre-requisite Bio 211 with a C or better
4 semester hours

Music

MUSIC 100
Private Lessons
Private instrumental/vocal lessons are available at a special fee. One credit per semester will be given for 30 minute weekly lessons. Two credits per semester will be given for 60 minute weekly lessons. Applied music may be repeated for credit each semester. Prerequisite: Permission of instructor.
1-2 semester hours

MUSIC 101
Aural Theory I
Development of aural recognition and singing. Includes intervals, scales, and triads in all forms.
1 semester hour

MUSIC 102
Aural Theory II
Counterpoint. Beginning with first species tonal counterpoint and progressing to four-part chorale textures, students will develop the skills of writing multiple musical lines according to standard practices. Musical examples are studied.
3 semester hours

MUSIC 110
Music Appreciation
A basic course in the elements of music and their historical application in Western music. Active listening and student participation is emphasized.
3 semester hours

MUSIC 121
History of Western Music I
The historical development of music and musical styles from ancient Greece to the end of the baroque era.
3 semesters hours

MUSIC 122
History of Western Music II
The historical development of music and musical styles from the baroque era through succeeding classical, romantic, and modern periods.
3 semester hours

MUSIC 203
Twentieth Century Music
An examination of the diverse styles of the 20th century, the composers, and social, cultural, and philosophical trends which influence them. Prerequisite: Music 121 or Music 203/204, or permission of the instructor.
3 semester hours
MUSIC 207
The History of Jazz
A study of the periods of jazz, jazz performers and composers, trends, influences, stylistic features, and related materials.
3 semester hours

MUSIC 208A / 208B
Jazz Improvisation and Repertoire I, II
A beginning approach to jazz improvisation through the study of contemporary harmony. Lyrical style will be emphasized. Students analyze and transcribe solos. Prerequisites: Music 109-110.
3 semester hours

MUSIC 212
Studio Recording
Introduction to the use of microphones, mixing consoles, digital and analog recorders in the university's recording studio. Labs include on-campus concerts.
2 semester hours

MUSIC 215
Theory III
Harmony and Analysis. Introduction to the harmonic and formal practices of the seventeenth and eighteenth centuries in Western music. Examples from the repertoire studied. Continues the study of four-part writing.
3 semester hours

MUSIC 215A / 216A
Aural Theory III, IV
Continues the development of aural recognition and solfege singing. Includes aural recognition of four-part music, cadences, and modulations.
1 semester hour each

MUSIC 216
Theory IV
Harmony and Analysis. Introduction to the harmonic practices of the nineteenth and early twentieth centuries in Western music, with an emphasis on chromaticism and large scale formal considerations. Examples from the repertoire will be examined.
3 semester hours

MUSIC 220
Vocal Diction
Study of IPA and vowel and consonant production required for singing in Italian, German, French and English. Specific application to the song and operatic literature.
3 semester hours

MUSIC 225
Group Piano
A beginning course in the fundamentals of piano technique and playing. Simple pieces, scales, exercises and transposition.
2 semester hours

MUSIC 250
Keyboard Harmony
Keyboard skills are developed which include playing harmonic progressions in any key, cadences, and diatonic and chromatic sequences. Sight-reading diatonic melodies and simple figured bass are also required.
2 semester hours

MUSIC 255
Junior Recital
A full-length recital performed on declared major instrument. Format and repertoire must be approved by music faculty. Pass/Fail.
0 credit

MUSIC 256
Keyboard Harmony
Keyboard skills are developed which include playing harmonic progressions in any key, cadences, and diatonic and chromatic sequences. Sight-reading diatonic melodies and simple figured bass are also required.
2 semester hours

MUSIC 295
Senior Recital
A full-length recital performed on declared major instrument. Format and repertoire must be approved by music faculty. Pass/Fail.
0 credit

MUSIC 300
Internship
Professional, supervised, work experience in an organization related to career goals (may be unpaid). Prerequisite: Permission of advisor and School director.
3 semester hours

MUSIC 307
The History of Jazz
A study of the periods of jazz, jazz performers and composers, trends, influences, stylistic features, and related materials.
3 semester hours

MUSIC 309
Jazz Improvisation and Repertoire I, II
A beginning approach to jazz improvisation through the study of contemporary harmony. Lyrical style will be emphasized. Students analyze and transcribe solos. Prerequisites: Music 109-110.
3 semester hours

MUSIC 311
Fundamental patterns and expressive techniques of conducting. Emphasis in choral techniques and conducting choral ensembles.
3 semester hours

MUSIC 312
Advanced patterns and expressive techniques of conducting. Emphasis in instrumental techniques and conducting instrumental ensembles and orchestras.
3 semester hours

MUSIC 315
Introduction to Composition
Specific creative projects to be performed by University ensembles or soloists. Techniques of instrumentation and notation are emphasized. Prerequisite: Music 216 or permission of instructor.
3 semester hours

MUSIC 398
University Singers
Presentation of choral works from a variety of cultural and historical perspectives. Performances at university and community functions. All who enjoy singing are encouraged to enroll.
1 semester hour
MUSIC 105
Orchestra
A university-community orchestra offering opportunity for public performance.
1 semester hour

MUSIC 107
Chamber Ensembles
Development of musical skills related to functioning within an ensemble. An exploration of rehearsal techniques and group dynamics leading to performance of repertoire for chamber ensembles. Prerequisite: Permission of instructor.
1 semester hour
Brass Ensemble - 107A
String Ensemble - 107B
World Music Ensemble - 107E
Chamber Singers - 107F
Early Music Ensemble - 107M
Accompanying - 107P
Small Group Jazz Ensemble - 107R
(Each 1 semester hour)

MUSIC 112
Sinfonietta
A large instrumental ensemble designed to produce compelling programs that showcase the variety of musical talents and skills of students.
1 semester hour

MUSIC 115
Concert Choir
Limited to a balanced choral ensemble selected by audition during registration. Extensive performance opportunities with emphasis on traditional and contemporary choral literature. Membership on full-year basis only.
1 semester hour

Music Education

MUSIC EDUCATION 183
Group Instruction in Voice
Instructing the future teacher in techniques of tone production, pitch, and modern effects used in choral singing, especially at the junior and senior high school levels.
2 semester hours

MUSIC EDUCATION 221
Group Instruction in Strings
Designed to provide the future school music teacher with proficiency in tone production, and the technical development of string players at the junior and senior high school levels.
3 semester hours

MUSIC EDUCATION 225
Group Instruction in Brass
Designed to provide the future school music teacher with the necessary proficiency in brass instrument teaching.
3 semester hours

MUSIC EDUCATION 226
Group Instruction in Percussion
Designed to provide the future school music teacher with the necessary proficiency in percussion instrument teaching.
3 semester hours

MUSIC EDUCATION 227
Group Instruction in Recorder I
The recorder is one of the most important tools in music education today. This class will present the history, physics, and repertoire of the recorder. It will provide students with pedagogical tools and strategies for teaching all levels of music education.
3 semester hours

MUSIC EDUCATION 228
Group Instruction in Recorder II
This class will focus on repertoire and performance of repertoire most pedagogically useful when teaching recorder classes. This class, in conjunction with Group Recorder I M227, and participation in early music ensembles will equip students with enough solo and ensemble techniques to develop and teach innovative recorder programs. Prerequisite: ME227
3 semester hours

MUSIC EDUCATION 240
Pre-Teaching Practicum
Consists of developing teaching styles, plans, and materials designed to: (1) help the student determine professional goals. (2) provide insights and experiences in music teaching prior to professional music education classes.
0 semester hours

MUSIC EDUCATION 241
Choral Practicum
Designed to give the education student an opportunity to expand conducting technique, develop rehearsal techniques, and expand familiarity with standard choral literature. Opportunity will be provided to rehearse and conduct University choral ensembles.
0 semester hours

MUSIC EDUCATION 242
Instrumental Practicum
Designed to give the education student an opportunity to expand conducting technique, develop rehearsal techniques, and expand familiarity with standard instrumental chamber literature. Opportunity will be provided to rehearse and conduct University chamber ensembles.
0 semester hours

MUSIC EDUCATION 331
Literature and Techniques for Chorus
A study of choral literature appropriate for the middle and high school levels. Includes techniques of voice testing, tone development, range, diction, and musicianship. Prerequisite: Mse 183 or permission of instructor.
3 semester hours

MUSIC EDUCATION 332
Literature and Techniques for Band and Orchestra
Study of band and orchestra literature with emphasis on rehearsal techniques and problems related to band and orchestra organization. Prerequisite: Mse 221, 223, and 225
3 semester hours

MUSIC EDUCATION 336
Literature and Techniques for Jazz Ensemble
Methods, materials, and rehearsal techniques in arranging for small and large jazz ensembles at the high school level. Prerequisite Music 304 or permission of instructor.
3 semester hours

MUSIC EDUCATION 343
Music in Elementary Schools
An examination of significant teaching methods, procedures, materials, and problem-solving necessary to teach music in grades one through six.
3 semester hours

MUSIC EDUCATION 380
Music in Secondary Schools
An examination of significant teaching methods, procedures, materials, and problem-solving necessary to teach music in secondary schools.
3 semester hours

MUSIC EDUCATION 399A
Independent Study
Specialized advanced projects in subjects not covered by regular course offerings. Conferences with designated advisor. Prerequisite: permission of advisor and school director.
3 semester hours
Nutrition

NUTRITION 121
Anatomy and Physiology I, II
A detailed study of the structure and function of cells, tissues, and organ systems. Control systems of the human body, homeostatic mechanisms, and the interrelationships between the systems are studied.
8 full day weekend sessions; 6 semester hours

NUTRITION 122
Introduction to Biochemistry
A review of basic general chemistry topics including atomic theory, periodic law, chemical bonding, chemical reactions, kinetics, acids, bases and organic chemistry topics including isomerism, and physicochemical properties of various functional groups. Biochemical properties of carbohydrates, lipids, proteins, and nucleotides will also be discussed.
6 full day weekend sessions; 4 semester hours

NUTRITION 123
Nutrition Seminar
A seminar designed to provide students with the basic principles of nutrition. Topics include classes and sources of nutrients, energy intake and expenditure, dietary standards and guidelines, food labeling and food safety. Emphasis will be placed on the role of macronutrients in the diet.
2 full day weekend sessions; 1 semester hour

NUTRITION 204
Principles of Nutrition
The principles of nutrition are presented with emphasis upon diet counseling and behavioral modification for the dental patient. The case method is used both in theory and practice to relate prevention and control of oral disease through nutritional status. Prerequisite: CHEM 114.
2 semester hours

NUTRITION 205
Fundamentals of Nutrition
The fundamentals of normal and therapeutic nutrition are presented. Attention is focused on the promotion of health, prevention of illness and the restoration of health following illness for injury. This course includes a self analysis of the participant’s diet.
3 semester hours

NUTRITION 299
Independent Study
Students examine specific nutritional topics of personal interest. Permission of instructor is required.
3-6 semester hours

NUTRITION 350
Community Nutrition
This course will provide students with the knowledge, skills, tools and evidence-based approaches needed by community nutritionists to promote health and prevent diseases.
3 semester hours

Philosophy

PHILOSOPHY 101
General Philosophy
A survey of the central problems of metaphysics, epistemology, and ethics. Topics include the existence of God, extreme skepticism, the relationship between mind and body, free will versus determinism, and freedom of expression. The course includes analysis of representative thinkers.
3 semester hours

PHILOSOPHY 103
Men, Women, Issues
A discussion of gender differences and sex equality. The course critically examines topics such as sexual harassment, comparable worth, monogamous marriage, prostitution, andrape. These topics are examined from a variety of perspectives, including conservatism, liberal feminism, traditional Marxism, radical feminism, and the care and justice outlooks that Carol Gilligan has identified.
3 semester hours

PHILOSOPHY 104
Logic and Scientific Method
Study of logical inference, both deductive and inductive. Analysis of propositions, arguments, fallacies, language, and the nature and functions of the methods of the sciences.
3 semester hours

PHILOSOPHY 110
Health Care Ethics
3 semester hours

PHILOSOPHY 203
Ethics
A study of problems of applied ethics, such as abortion, animal experimentation, affirmative action, and gay and lesbian rights. These problems are explored from the standpoint of ethical theories such as utilitarianism and Kantian ethics. The course helps students formulate and interpret moral values by which they may think and act.
3 semester hours

PHILOSOPHY 205
History of Western Philosophy
A survey of the historical development of philosophy from antiquity through the 19th Century, with weight given to the contributions of Greek philosophers and those of the Middle Ages and the Enlightenment. In the 19th Century, attention is given to the rationalist, idealist, and empiricist schools of thought and their influence.
3 semester hours

PHILOSOPHY 210
Animal Rights
This course explores philosophical theories of animal rights as well as the practical applications of these theories. Topics include vegetarianism, animal experiments, hunting and fishing, the treatment of animals in zoos and circuses, the treatment of companion animals, the treatment of animals in the fur and leather industry, and the use of violence by some animal rights activists.
3 semester hours

PHILOSOPHY 211
Philosophy of Human Rights.
This course explores the following questions: Do human beings have rights? What rights do human beings have? Is torture ever morally justified? How far should freedom of speech and freedom of action extend? Does a fetus have a right to life? To what extent does a free market promote human rights? To what extent are Confucian ideas compatible with human rights?
3 semester hours

PHILOSOPHY 213
Philosophy of Science
This course will introduce students to the philosophy of science by focusing on connections between science and philosophy. Students will examine the ontological status of theories, the social organization of science and interactions between these topics and epistemological questions.
3 semester hours

PHILOSOPHY 216
Philosophy of World Religions
A comparison and analysis of the philosophical foundations of some of the world’s major
Philosophy • Physics

religions. Among the religions studied are: Judaism, Christianity, Islam, Hinduism, Buddhism, and Confucianism.

3 semester hours

PHILOSOPHY 323 (PHIL 323/PSCI 323)

Classics in Political Theory
Analysis of principles of political theories of the Ancient Greek, Roman, Medieval, and Early Modern periods. Emphasis on the thought of Plato, Aristotle, the Stoics, St. Augustine, St. Thomas Aquinas, Machiavelli, Hobbes, Locke and Montesquieu. Application of these theories to contemporary political ideas and problems.

3 semester hours

PHILOSOPHY 324 (PHIL 324/PSCI 324)

Recent Political Theory
An examination of a broad spectrum of recent world views, with particular attention paid to systems such as anarchism, Marxism-Leninism, and fascism. Other topics include Third World perspectives, black power, radical feminism, and futurism.

3 semester hours

PHILOSOPHY 340

Selected Topics in Philosophy
Concentrated study of a major figure or theme that will supplement the offerings in the department.

3 semester hours

PHILOSOPHY 399

Independent Study
For the student who wishes to specialize in advanced topics not covered by regular course offerings. Individual or small group conferences with designated advisor. Prerequisite: Permission of School Director.

3 semester hours

Physics

PHYSICS 103

Basic Concepts of Physics I
Space and matter, particles in motion, Newtonian mechanics, atoms and heat, wave phenomena.
2 lectures; 1 two-hour lab; 3 semester hours

PHYSICS 104

Basic Concepts of Physics II
Electricity and magnetism, relativity, and optics. The fundamental structure of matter.
2 lectures; 1 two-hour lab; 3 semester hours

PHYSICS 111

Principles of Physics I
The principles of mechanics and their applications. Kinematics, Newtonian mechanics, conditions for equilibrium, static’s, work, energy and conservation laws. Rotation. Simple harmonic motion; Co-requisite: MATH 110, or MATH 111.
3 lectures; 1 three-hour lab; 4 semester hours

PHYSICS 112

Principles of Physics II
3 lectures; 1 three-hour lab; 4 semester hours

PHYSICS 201

General Physics I
A non-calculus course which presents an introduction to classical mechanics, heat and thermodynamics. Prerequisite: MATH C105 or its equivalent.
3 lectures; 1 three-hour lab; 4 semester hours

PHYSICS 202

General Physics II
A non-calculus course covering the fundamental laws of electricity and magnetism, electric circuits, and optics, including topics from modern physics. Prerequisites: Mathematics C105 or its equivalent, PHYS 201 or its equivalent.
3 lectures; 1 three-hour lab; 4 semester hours

PHYSICS 304

Thermodynamics and Statistical Mechanics
The zeroth, first, second, and third laws of thermodynamics with applications to physical phenomena. An introduction to statistical physics. Prerequisite: PHYS 209; Co-requisite: MATH 215.
3 lectures; 3 semester hours

PHYSICS 305

Electricity and Magnetism I
3 lectures; 3 semester hours

PHYSICS 306

Electricity and Magnetism II
3 lectures; 3 semester hours

PHYSICS 312

Photronics
The wave aspects of radiation and the kinematics of wave motion giving rise to interference and diffraction, together with the interaction of electromagnetic waves and matter leading to such phenomena as reflection, dispersion, and polarization. Prerequisite: PHYS 209; Co-requisite: MATH 215.
3 lecture periods; 3 semester hours

PHYSICS 315

Quantum Mechanics I
Formalism of quantum mechanics; angular momentum, perturbation theory, other approximation methods, and applications of quantum theory. Prerequisites: MATH 215 and PHYS 209.
3 lecture periods; 3 semester hours

PHYSICS 317

Analytical Mechanics I
Elements of Newtonian mechanics. Motion of a particle, particles, and rigid bodies in one, two, and three dimensions. Prerequisite: PHYS 209; Co-requisite: MATH 215.
3 lectures; 3 semester hours

PHYSICS 318

Analytical Mechanics II
Lagrangian and Hamiltonian Mechanics, perturbation theory, central force fields, applications of vector and tensor analysis to nonlinear physical problems. Prerequisite: PHYS 317.
3 lectures; 3 semester hours

PHYSICS 321

Techniques in Modern Physics
Experimentation and Instrumentation. Undergraduate laboratory experiments in physics. Prerequisite: At least two physics courses numbered above 300.
1 three-hour lab; 1 semester hour

PHYSICS 322, 323, 324

Physics Laboratory
Undergraduate laboratory experiments in physics. Prerequisite: At least two physics courses numbered above 300 and 321.
1 three-hour lab; 3 semester hours

PHYSICS 360

Selected Topics in Physics
Selected topics in physics on specialized subjects beyond the scope of required courses to inform students of current areas of interest or
Physics • Political Science

POLITICAL SCIENCE 101
American Government.
The Constitution. Structure and function of the national government: proper citizenship, civil rights, elections, and party organizations.
3 semester hours

POLITICAL SCIENCE 103
Intro to Political Science and Political Science Research Methods
This course serves as a gateway to the study of political science for IPED majors and political science/international relations minors. We'll survey the historical and philosophical foundations of the political science discipline, major subject fields under the general category of political science, key concepts and issues in political science, and basic scientific methods in political science study and research.
3 semester credits

POLITICAL SCIENCE 203
U.S. Foreign Policy
This course examines contemporary US foreign policy from theoretical and policy perspectives. How American foreign policy is formulated and conducted will be discussed during the first half of the semester. The second half will be devoted to evaluations of US policies, especially economic and trade policies, towards key regions of the world.
3 semester credits

POLITICAL SCIENCE 204
Government and Politics Abroad
Principal institutions, methods, and problems of government of selected foreign countries in Europe, Asia, Africa, and Latin America as compared with the American System.
3 semester hours

POLITICAL SCIENCE 206
The Political Economy of North-South Relations
Political-economic disparities between “North” (the developed nations) and “South” (developing countries). The causes of these disparities analyzed from an interdisciplinary point of view. Recurring patterns of obstacles to development in some new nations. The role of international financial and other organizations.
3 semester hours

POLITICAL SCIENCE 207
World Politics
This course explores the principal elements of world politics, examining the context in which the major actors play their roles, as well as the salient features of the international community. It will review the most significant aspects of global politics by examining such topics as foreign policy, the nature of national power, and war. It will examine the origin, organization, and function of the major international institutions, and conclude with a discussion of global issues.
3 semester hours

POLITICAL SCIENCE 208
Introduction to International Law
History and nature of international law, territorial sovereignty, natural resources and international norms (e.g. exclusive economic zones, the continental shelf, outer space, etc.), diplomatic & consular relations, International Court of Justice and other tribunals, and the use of force in international law.
3 semester hours

POLITICAL SCIENCE 209
Introduction to United Nations Studies
Examination of the successes and failures of the United Nations, its prospects for the future, principal organs, especially the Security Council, budgetary system, role in arms control, relations between the United Nations and the United States, and related issues.
3 semester hours

POLITICAL SCIENCE 215
International Human Rights
A study of the international protection of human rights. The course analyzes the origin and nature of human rights, the content of human rights standards guaranteed by international law, as well as the global international mechanism for the protection of human rights. It includes a comparative examination of the regional systems in Europe, the Americas, Asia, and Africa for the protection of human rights.
3 semester hours

POLITICAL SCIENCE 223
An Introduction to the U.S. Legal System
This course will offer a comprehensive overview of the U.S. legal system, including an overview of legal practice sources and techniques with emphasis on the major substantive areas of the law. Students will begin by examining issues in constitutional law, with an overview of how government functions and how laws are made. A legal writing segment of the course will allow students to use legal analysis while refining their writing skills.
3 semester credits

POLITICAL SCIENCE 229
Selected Topics in Political Science
A course with variable topic focus, dependent upon student needs and the expertise of the instructor.
3 semester hours

POLITICAL SCIENCE 303 (PSCI 303/IPED 340)
Political Economy of Latin America
This course will explore pre-Colombian, as well as colonial and post-colonial political and economic development in Latin America. It will pay particular attention to socio-political developments of the Cold War period as well as recent significant initiatives such as the Santiago Commitment, MERCOSUR, and NAFTA, attempting to assess their impact upon Latin America’s transformation from development mentalism, to Third World politics, to an emerging center of democratic capitalism.
3 semester hours

POLITICAL SCIENCE 321 (PSCI 321/IPED 321)
Political Economy of East Asia
In recent decades, the East Asian region has often been described as a model of socioeconomic development, which newly developing regions should emulate. This course will encourage learners to explore the extent to which the East Asian paradigm of development is valid for other regions. This course will explore the cultural and historical factors contributing to the political and economic trajectories China, Korea, and Japan. Through studying East Asia’s unique sociopolitical and economic trajectory, students should be equipped to better contextualize and assess the challenges and opportunities currently facing the Peoples Republic of China, Taiwan, Hong Kong, Japan, and the Koreas.
3 semester hours

3 semester hours
Political Science • Professional Studies

POLITICAL SCIENCE 323 (PSCI 323/PHIL 323)
Classics in Political Theory
Analysis of principles of political theories of the Ancient Greek, Roman, Medieval, and Early Modern periods. Emphasis on the thought of Plato, Aristotle, the Stoics, St. Augustine, St. Thomas Aquinas, Machiavelli, Hobbes, Locke and Montesquieu. Application of these theories to contemporary political ideas and problems.
3 semester hours

POLITICAL SCIENCE 324 (PSCI 324/PHIL 324)
Recent Political Theory
Analysis of the major contemporary ideologies, their historical-philosophical backgrounds and public policy implications. Among the ideologies and belief systems considered are liberalism, conservatism, Marxism (including Leninism and Maoism), fascism, anarchism, religious fundamentalism, and feminism. The cultural expressions of these ideologies in arts and literature are also examined.
3 semester hours

POLITICAL SCIENCE 398
Internship
Professional, supervised, unpaid work in an organization related to career goals. Prerequisite: Permission of advisor and School Director.
3 semester hours

POLITICAL SCIENCE 399
Independent Studies
This course permits the advanced political science student to undertake individual research in the area approved by the instructor. Continuous consultation with the instructor is required. Prerequisite: Permission of School Director.
1-6 semester hours

Professional Studies

PROFESSIONAL STUDIES 201
Fundamentals of Management and Leadership
This course explores the fundamental principles, theory and functions applicable to a variety of organizational settings. Specific techniques related to managerial functions are explored as well as the broad issues and trends influence the practice of contemporary management: globalization, technology, diversity, and competitive advantage. Special emphasis is on the role leadership plays in motivation, performance management, communication, team building, innovation, and change management. Prerequisite: None

PROFESSIONAL STUDIES 202
Business Math
Business Math will assist students in learning to use mathematics effectively as a tool in their personal and business lives. After students complete this course, they will be able to understand the terminology used, apply basic math skills, and use common mathematical formulas to solve a variety of personal and business mathematics problems. Prerequisite: None

PROFESSIONAL STUDIES 204
Social Impact of Technology
This course is designed to critically assess the institutional forces that shape and create the demand for information technology (IT). It will also discuss how the consumption of IT impacts economy and society. The course will help participants think about how changing social and economic conditions determine what technologies are consumed and how they are consumed, who consumes them and where they are consumed. Prerequisite: None

PROFESSIONAL STUDIES 220
Analytical & Persuasive Writing
Continuing to practice the rhetorical skills introduced in ENGL 101, students will develop analytical, interpretive, and information literacy skills necessary for constructing a well-supported, researched, academic argument. Prerequisite: ENGL 101

PROFESSIONAL STUDIES 224
Critical Thinking & Writing
Develops the ability to analyze, criticize and advocate ideas. Examines relationship of language to logic, induction and deduction, facts, inferences, judgments, formal and informal fallacies of language and thought. Instructs in writing about issues of critical thinking to develop both thinking and writing skills. Prerequisite: ENGL 101

Healthcare Administration

HEALTHCARE ADMINISTRATION 333
Management of Health Care Information Systems
This course examines healthcare organizations from the perspective of managing the information systems that exist within the enterprise. Identifying the clinical and healthcare delivery processes and how they relate to information systems is a main focus. The intent of the course is to identify the key issues confronting the management of healthcare information systems today, examine their causes, and develop reasonable solutions to these issues. Prerequisite: PRST 201 & MGMT 300

HEALTHCARE ADMINISTRATION 331
Law and Ethics in Health Care
This course presents an overview of the legal and ethical issues faced by healthcare consumers, practitioners, and administrators. The course will introduce students to the legal aspects of health care at the federal, state, and local levels. Topics covered will include criminal and civil claims against health care providers, corporate and individual liability, and legal and ethical decision-making. Prerequisite: PHIL 203

HEALTHCARE ADMINISTRATION 334
Healthcare Financial Management
This course is an application of financial management techniques to decision making for health care professionals. This course examines aspects of modern hospital & health care organization financial management to prepare students for supervisory and management roles. In addressing the types of financial decisions that health care executives are most likely to be involved in the course objective is to understand the underlying importance of (1) accounting information; (2) health care industry knowledge; and (3) principles of economics. Prerequisite: PRST 250

HEALTHCARE ADMINISTRATION 332
Health Care Organization & Administration
This is an introductory course on the organization, finance and delivery of health care services from a societal perspective. It examines alternatives that a society may organize, finance, and deliver health care services, and the philosophical, social, and political economic foundation underlying a health care system. It begins with examining the nature of health and health care services, and followed by reviewing the role of government and free
Human Resource Administration

Human Resource Administration 334
Training Methods
This course explores current and emerging models and theories, and practical methods to effectively connect training and learning to organizational/business goals. In this course, the student will learn how to 1) identify training and development needs through needs assessments, 2) analyze jobs and tasks to determine training and development objectives, 3) create appropriate training objectives, 4) design effective training and development programs using different techniques or methods, 5) implement a variety of different training and development activities, and 6) evaluate training and development programs. Prerequisite: MGMT 305

Organizational Leadership

Organizational Leadership 341
Supervision and Team Building
The course develops management theories of planning, organizing, staffing, leading, and controlling. Emphasis will be given to the effectiveness of human relations in communication, leadership matters, and team-building concepts as it relates to the workplace. Although the course emphasizes principles and practices of first-line supervision, it also introduces concepts and skills for supervisory leadership and supervisory management needed for effective team building, program or organizational innovation, group decision-making, and mediating intra-staff conflicts as well as conflict between staff and administration. Prerequisite: MGMT 300

Organization and Development

Organizational Leadership 342
Non-profit Management
This course will introduce students to strategic management issues in the nonprofit sector. The course will cover key issues in founding, leading, managing, and governing nonprofit organizations and new nonprofit ventures, including organizational mission, strategic analysis and planning, board governance, multiple constituencies, partnerships and collaborations, human resources, financial management, fundraising and resource development, and performance measurement and impact. Prerequisite: MGMT 300

Organizational Leadership 350
Organizational Change and Leadership
This course offers students a comprehensive, relevant perspective on leadership and management. While the course provides grounding in important concepts, it also stresses application to professional and community settings. Students analyze concepts such as leading as an interactive process (involving the leader, the “followers”, and the situation), managing with innovation and creativity, escaping from embedded practices, and embracing new managerial principles. Prerequisite: PRST 201 & MGMT 300

Organizational Leadership 351
Challenges in Leadership Seminar
This course will explore in a seminar format leaders and leadership situations. The key elements of leadership will be discussed and should facilitate the development of a coherent and consistent perspective on leadership. Prerequisite: ORLD 350

Healthcare Strategic Management

Healthcare Strategic Management
This course will introduce students to concepts, principles, and practices of strategic management in multiple healthcare settings. Case studies will be used from the healthcare industry as well as other business sectors to expose students to the field of organizational behavior. Students will develop their knowledge in areas including negotiation, leadership, organizational design, organizational culture, how people work in organizations, and strategy (including stakeholder and SWOT analysis, and the current approaches to the development of strategic plans). Prerequisite: HLAD 334 & 332

Psychology

Psychology 103
Introduction to Psychology
An introduction to the field of psychology, including such topics as research methods, the brain, neuronal structure and functioning, sleep and dreaming, cognitive and social development, learning, memory, intelligence, personality, psychopathology, psychotherapy, social cognition, and social influence. This course is a prerequisite of all higher-numbered psychology courses, with the exception of PSYC 201 (Child Psychology) which can be taken concurrently with Psych 103.
3 semester hours

Psychology 201
Child Psychology
This course will examine the theories and issues surrounding biological, cognitive and psychosocial development from conception to pubescence. This course is interactive with a focus on personal life experience and current social events. This course is the first in a series of 4 courses that can lead to a certificate in human development.
3 semester hours

Psychology 202
Adolescence
This course will examine the theories and issues surrounding biological, cognitive and psychosocial development from pubescence to adulthood. Students explore experiences and values related to risk taking, friendships, peer-groups, peer-pressure, marriage, relationships, parenting, and sexuality. This course is the second in a series of 4 courses that can lead to a certificate in human development.
3 semester hours

Psychology 203
Maturity and Aging
This course will examine the theories and issues surrounding biological, cognitive and psychosocial development from adulthood through death and the process of dying. This course is interactive and focuses on personal experiences and reactions. Important questions about health, longevity, aging, and the dying process are explored. This course is the third in a series of 4 courses that can lead to a certificate in human development.
3 semester hours

Psychology 204
Introduction to Health Psychology
This course will examine the theories and issues surrounding the relationship between health and behavior, including such topics as chronic diseases, stress, the environment, and health insurance. This course is interactive with a focus on personal life experience and current social events. This course is the fourth in a series of 4 courses that can lead to a certificate in human development.
Psychology

PSYCHOLOGY 230
Abnormal Psychology
The course will focus on the study of those thoughts, feelings, and behaviors that interfere with psychologically adaptive functioning. The causes and appropriate treatments of mood disorders, personality disorders, schizophrenia, adjustment reactions, and other disorders as specified in the DSM will be discussed.
3 semester hours

PSYCHOLOGY 240
Social Psychology
This course is designed to provide an overview of the field of social psychology. Learning will be accomplished through reading and discussion of the text, as well as presentation of supplemental material provided by the instructor along with in-class activities, videos and discussion. Topics will include discussion of the varying domains of research in social psychology, important studies in the field, and how it applies to academia and everyday life. Topics will include: attitudes and attitude formation, persuasion, aggression, conformity, obedience, culture, helping behaviors, attraction, self-concept, as well as discrimination and prejudice.
3 semester hours

PSYCHOLOGY 303
Personality Psychology
This course will focus on the structure, dynamics, and development of personality. Major personality theories – psychoanalytic, trait, behavioral, cognitive, socio-biological, humanistic/existential – and their implications for understanding human cognition and behavior, will be discussed.
3 semester hours

PSYCHOLOGY 307
Cognitive Psychology
This course will focus on recent advances in the understanding of thought processes. There will be a focus on attention, perception, memory, imagery, problem solving, language, intelligence, creativity, and dreaming.
3 semester hours

PSYCHOLOGY 309
Industrial/Organizational Psychology
This course provides an application of psychological principles to industry, business, transportation, communications, institutions, leadership, and consumer behavior.
3 semester hours

PSYCHOLOGY 310
Human Sexuality
Physiological and psychological components of human sexuality, and their interaction will be discussed. There will be a focus on health and social issues and on individual, gender, and cultural differences.
3 semester hours

PSYCHOLOGY 314
Educational Psychology
Psychological concepts, principles, theory, and research will be applied to the teaching and learning process. There will be a focus on growth and development, adjustment and personality, learning, measurement, and evaluation.
3 semester hours

PSYCHOLOGY 316
Current Topics in Psychology
Examination of one or more currently prominent topics in psychology, such as memory reconstruction, sexual orientation, emotional intelligence, brain plasticity, or hate crimes.
3 semester hours

PSYCHOLOGY 321
Research Methods
Students will explore and evaluate the validity of various experimental and non-experimental research strategies and gain experience collecting psychological data, in groups and individually. The course provides foundations of statistical analysis, including both descriptive and introductory inferential statistics.
3 semester hours

PSYCHOLOGY 345
Health Psychology
This course will explore how psychological theories are applied to behaviors associated with health. Students will examine the cognitive and behavioral processes associated with a wide range of mental and physical health activities. Theories and research from clinical, social, developmental and biological backgrounds will be discussed in regards to their application to health behaviors. Specific topics will include stress and coping, drug and alcohol use, social support, health stigmas, patient/provider interactions, pain and pain management, and disorders related to health.
3 semester hours

PSYCHOLOGY 346
Animal Behavior
This course integrates the proximate and ultimate causes of behavior through survey of key concepts, theories and models in the field of Animal Behavior. Students will explore the mechanistic causes of behavior including the genetic, hormonal, neural and environmental influences on behavioral development and expression. Students will examine behaviors important to survival (such as finding food and avoiding predators) and those important to reproduction (such as selecting mates) while considering the manner in which these behaviors are shaped and constrained by ecology and evolutionary history. Students will actively examine classic theories and research in this area, and compare and contrast it with modern scientific perspectives from numerous disciplines.
3 semester hours

PSYCHOLOGY 348
Psychology of Women
This course will cover various aspects of the psychology of women such as gender stereotypes and biases, gender comparisons social situations, women and work, love relationships, women and psychological disorders, and violence against women. Prerequisite Course: PSYC 105 and 201 or 202
3 semester hours

PSYCHOLOGY 355
Sports Psychology
A study of the psychological foundations of physical activity. An overview of the psychological and mental factors that influence and are influenced by participation and performance in sports, exercise and physical activity. Included are applications of the knowledge gained through research to everyday settings.
3 semester hours

PSYCHOLOGY 370
Forensic Psychology
Surveys the overall intersection of psychology and the American court system. Emphasis will be placed on issues related to clinical psychology/psychiatry in the criminal justice system such as sanity evaluation, criminal profiling and assessment of dangerousness. Students will explore how forensic psychologists have been involved in the jury selection process and have contributed to our understanding, of eyewitness testimony (limitations of memory) and the detection of deceit through the polygraph and other techniques. Finally, students will explore how professionals trained
in developmental, organizational, and clinical psychology interact with the court system when they serve as “expert witnesses” in a variety of civil and probate matters.

3 semester hours

PSYCHOLOGY 375
Psychology of Stigma
This course will broadly explore the psychological foundations of stigma, as well as the ramifications of being stigmatized. Theories as to why people stigmatize others, how this is justified and rationalized, and how people cope with being stigmatized will be explored. Specific topics will include racism and discrimination, social exclusion, gender and sexuality bias, stigma consciousness and self-concept, ageism, and taboo behavior. Students will integrate theories of stigma with other modern psychological principles, and will actively discuss and write on these concepts.

3 semester hours

PSYCHOLOGY 380
Biological Psychology
The biological mechanisms underlying human behavior will be explored. This course will focus on evolution, genetics, and the anatomy and physiology of the human brain and nervous system. How these systems are affected and impacted by sensory systems, movement, waking and sleeping, homeostasis, hormones, sexual behavior, emotions, learning, memory, and language will be discussed.

3 semester hours

PSYCHOLOGY 381
Drug Effects and Behavior
Fundamentals of psychopharmacological research with emphasis on human drug-taking behavior will be discussed. A discussion of the various psychoactive drugs and implications of their use will occur.

3 semester hours

PSYCHOLOGY 385
Statistical Methods in Psychology
This course will provide the student with an overview of basic statistical theories and methodologies used in modern psychological research. Topics will include the theoretical basis, application, and methodologies involved in descriptive statistics, correlations, t-tests, ANOVAs and regressions.

3 semester hours

PSYCHOLOGY 389
Individual Study in Psychology
An opportunity to study topics not covered in regular course offerings or to carry out an individual course of instruction.

1-6 semester hours

PSYCHOLOGY 390
Psychology Research Practicum
This course is designed to give students the opportunity and experience of assisting with empirical research in psychology, under directed mentorship of a faculty member at UB. Prior approval by that faculty member is required. Directed mentorship in a psychology laboratory outside of UB will be considered. Students will learn about the ethics involved in human research, and will assist a faculty member in their research through activities such as participant recruitment, survey administration and other forms of data collection, data entry, and empirical literature review. Students will provide a written summative overview of their experience at the end of the semester. This course is by instructor permission only, and is limited to psychology (or closely related area) majors with a minimum of sophomore standing and a 3.3 cumulative GPA.

2-4 semester hours

PSYCHOLOGY 395
Senior Thesis in Psychology
Students work individually with their advisor to produce an integrative review or conduct empirical research on a specific topic within psychology.

3 semester hours

PSYCHOLOGY 396
Careers in Psychology (Internship)
This course is designed to give students practical experience applying their knowledge of psychology or psychology related principles to an actual career or work setting. Internships may take place in local businesses, mental health and crisis centers, schools, residential settings, criminal justice programs, camps, college campuses, hospitals, community centers and other related environments. Students must have a designated, qualified supervisor within the work environment. Students provide written documentation that relates their knowledge to the work setting. This course is by instructor permission only. 

3-6 semester hours

PSYCHOLOGY 407
Psychology of Consciousness
This course will focus of all aspects of consciousness. Topics include sleep and dreams, meditation and prayer, yoga, daydreaming, creative insights, extrasensory perception, spiritual experiences, drug-induced states, hallucinations, and the mind-body issue.

3 semester hours
Retailing 304  
Offered: Alternating semesters annually

RETAILING 203  
Fashion and Retail Buying I  
The study of buying theory and techniques for department stores and specialty retailers. Analyzes the buying function and examines how buyers' responsibilities vary in different types of merchandising organizations. Study of the principles, procedures, and techniques practiced by merchandisers of fashion goods in determining resources to select, and assortments to buy includes private label development.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 205  
Textiles I  
Basic concepts of textiles dealing with fibers, yarns and methods of fabric construction. Specific laboratory assignments devoted to natural and synthetic fiber identification and testing. $50 lab fee.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 206  
Textiles II  
Continuation of textile concepts including the study of films, foams, laminated fabrics, fiber webs, knitted constructions, knotted fabrics, laces and flocked fabrics. In depth study of aesthetic and functional fabric finishes with emphasis on specific needs of the clothing and home furnishings industries. Laboratory work applies industry testing standards to individual fabrics. Woven, knitted, and applied fabric patterns are explored using a variety of mediums including CAD/CAM software. Students are responsible for submitting testing results and aesthetic development projects in addition to preparing sample books of commercially produced designs and functional finishes. Prerequisite: RETL 205. $50 laboratory fee.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 207  
Strategies of Selling  
Development of professional selling techniques necessary for efficiency and success in all phases of retailing and wholesaling. Expertise in a retail product line is developed through a product research project.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 280  
Industry Internship  
Paid work experience in a faculty-approved retail organization. Six week full-time on-the-job assignment combined with written research into corporate structure and marketing strategy. Holiday selling season of sophomore year. Prerequisite: 2.5 Q.P.R. Student must maintain 2.5 Q.P.R. during the internship semester. Fashion Merchandising and Retailing majors only.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 300  
Mass Merchandising and Marketing  
An analytical study of national and multi-national mass merchandising organizations that include origin, concepts, operations, technology, and profitability. Comparison of in-store mass merchandisers and non-store catalog retailers, on-air merchandisers, and on-line marketers. Students research one in-store and one non-store mass merchandiser of their choice in depth. Students prepare a catalog, an on-air, and an e-tailing presentation using a mass market approach. Students utilize “CATALOG,” “STORY-BOARD,” software to prepare presentations. Students explore the benefits of social media on the mass market. Prerequisites: RETL 201, RETL 204, RETL 207 and RETL 213; open to juniors and seniors only.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 304  
Fashion and Retail Buying II  
Inventory and stock control procedures, analysis of consumer demand in the buying and marketing of fashion products. Six month budget planning of sales, goods, and promotional activities. Spreadsheets and computer applications are used to plan, analyze, and adjust retailing activities by revisions in quantities and merchandise assortments. Practice in buying from a variety of domestic and international resources. Prerequisites: RETL 102 with a grade of “C” or better and RETL 203.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 307  
Surface Design I  
Introduction to the business of Textile Surface Design. Course focus is on applied surface designs using natural and geometric motifs as they apply in a variety of fashion markets including infant's and children's, women's, men's, domestics and paper goods. Students research current market design and color trends. Using classic, modern, or ethnic motifs students work with layout, repeat size and color ways. Students develop their own collection libraries in paper and disc formats. Students design applied patterns and alternative color ways using “DESIGN and REPEAT” and “EASY COLORING” CAD/CAM software. Students prepare portfolios of their best designs. Open to juniors and seniors only. Prerequisites: RETL 205, RETL 206, Design 103. $50.00 lab fee.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 313  
Organizational Management  
A study of the management decisions faced by the retail executive in today's marketplace. Topics include locations, retail store layout, security, the customer service mix, retail credit arrangements and their cost-benefit relationships. Human resource concerns include recruitment, personnel changes, retraining and layoffs, employee benefits and their impact on both morale and budgets. Students research in-depth one of the top international retailers for practical solutions to a profitable retail environment. Prerequisite: Retailing 201, and Marketing 305; junior and seniors majors only. May not be taken same semester as Fashion Merchandising 270.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 330  
International Fashion Marketing/Product Development  
An examination of international trade for textile and apparel industries. This course studies supporting agencies, foreign manufacturing, distribution, financing, transportation, tariffs and customs regulation. The student will be required to research exporting and importing a product and to prepare both a written and oral presentation. Prerequisites: RETL 205 and RETL 206.  
3 semester hours  
Offered: Alternating semesters annually

RETAILING 398  
Internship Experience  
Field study of an organization in action. Students participate in an internship experience at an outside organization in the Fashion or Retail Industries. Students receive a perfor-
The scientific examination of the geological, physical, chemical, and biological characteristics of the oceans. The course will include laboratory and field studies of local marine environments. Prerequisite: SCI C101 or SCI C102 or an equivalent course.
2 lecture periods; 1 two-hour laboratory; 3 semester hours

**Social Sciences**

**SOCIAL SCIENCES C201**  
*World Regional Geography*
A survey of world physical and human geographic patterns. Each world region will be analyzed in terms of its environment and resource distributions, agricultural systems and rural development, population growth and characteristics, and patterns of urbanization and industrial growth. Considerable emphasis will be placed on the non-Western world, issues of sustainable development, and the changing nature of geography. Students will be required to write one research paper on a particular world region of their choice.
3 semester hours

**SOCIAL SCIENCES 300**  
*Seminar in Social Science Methods*
An introduction to the methods of research and criticism employed in history, economics, anthropology, sociology, psychology, and political science. Social Sciences majors will gain experience in both statistical and interpretative methods that will be useful for their senior thesis. PC access required. Prerequisite: Sophomore standing. Required of Social Sciences majors in the junior year.
3 semester hours

**SOCIAL SCIENCES 395**  
*Senior Thesis*
Students work individually with their advisors, preferably starting in the second semester of the junior year, to research and write a thesis on a topic related to the social sciences. This topic may be the extension of an idea first developed in the Seminar on Social Science Methods. Prerequisite: SOSC 300. Required of Social Science majors in the senior year.
3 semester hours

**SOCIOLGY 101**  
*Principles of Sociology*
3 semester hours

**SOCIOLOGY 102**  
*Sociology of Social Problems*
Analysis of major problems in modern society; existing methods for dealing with these problems.
3 semester hours

**SOCIOLOGY 118**  
*Introduction to Criminal Justice*
This course is intended to introduce you to the field of criminal justice and criminology. More specifically, we will explore how the American criminal justice system interacts with society and reacts to societal issues. In turn this will help us understand how society functions in response to the criminal justice system.
3 semester hours

**SOCIOLOGY 204**  
*Marriage and the Family*
Courtship, marriage patterns, social sexual adjustment. Social interaction within the family. The family and society.
3 semester hours
Sociology • Spanish • Theatre • World Religion

SOCIOLOGY 231
Cultural Anthropology
Origins and growth of culture. Pattern of culture as related to personality and social structure. Comparative cultures.
3 semester hours

SOCIOLOGY 270
Sociology of Deviance
Specialization into deviance; social typing; deviant subcultures; deviant identity; accommodation to deviance; public and informal regulation of deviance; treatment approaches to deviance; theoretical frameworks. Implications for policy-making. Prerequisite: SOC 101
3 semester hours

SOCIOLOGY 299
Selected Topics in Sociology
A course with variable topic focus; dependent upon student needs and the expertise of the instructor.

SOCILOGY 310
Race and Ethnicity
Racial and ethnic stratification; causes and consequences of prejudice and discrimination; problems of assimilation and pluralism; racial and ethnic conflict in the U.S. and in other societies.
3 semester hours

SOCIOLOGY 311
Juvenile Delinquency
Analysis of delinquency causation, methods of treating delinquents, juvenile court procedures, interrelationship of police and youth, and problems of prevention.
3 semester hours

SOCIOLOGY 315
Criminology
A critical examination of the conditions under which crime and delinquency occur. Theories of crime and punishment. Treatment of offenders.
3 semester hours

SOCIOLOGY 348
Religion & Society
A sociological and anthropological analysis of religion as a universal social institution, with emphasis upon theories of the origins of religion, relationships of religion to other social institutions, study of selected Western and non-Western religions in their socio-cultural contexts, religion as a source of social equilibrium and conflict, types of religious movements.
3 semester hours

SOCIOLOGY 355
Globalization
This course examines the phenomenon of globalization as an economic, political, and cultural reality. The focus of lecture and discussion will arise through consideration of treatment of the issue by current social theorists: e.g., Roland Robertson, Peter Berger, Immanuel Wallerstein, Mike Featherstone, Thomas Friedman. Critics of globalization will also be read and considered: e.g., Lourdes Benera, John Cavanaugh, Joseph Stiglitz.
3 semester hours

SOCIOLOGY 399
Independent Study
For the student who wishes to specialize in advanced projects not covered by regular course offerings. Individual or small group conferences with designated advisor. Prerequisite: Permission of advisor and School Director.
1-6 semester hours

Spanish

SPANISH 101
Elementary Spanish I
Introduction to Spanish, stressing pronunciation, aural comprehension, and basic conversation. The fundamental principles of grammar. Training in reading comprehension and writing.
3 semester hours

SPANISH 102
Elementary Spanish II
Continuation of Spanish 101. Prerequisite: SPAN 101.
3 semester hours

SPANISH 103
Intermediate Spanish I
Conversation based on the reading of modern prose texts. Drill in written and oral self-expression. A review of the principles of grammar. Prerequisite: Spanish 102 or two years of high school Spanish.
3 semester hours

SPANISH 104
Intermediate Spanish II
Continuation of Spanish 103. Prerequisite: SPAN 103 or three years of high school Spanish.
3 semester hours

SPANISH 399
Individual Study
Special projects on topics not studied in detail in regular courses, or projects on topics included in regular courses when those courses are not available. Prerequisite: Permission of School Director.
1-6 semester hours

Theatre

THEATRE 103
Introduction to Theatre
The art of the theatre: its literature, structure, and aesthetics. Contributions of the playwright, actor, architect, director, designer, and producer are examined through lectures, presentations by visiting artists, class discussion, projects, and attendance at theatrical performances.
3 semester hours

THEATRE 233
Role Study and Characterization
The creative processes by which an actor may construct an interpretation are studied in theory and pursued in practice with heavy emphasis upon scenes.
3 semester hours

World Religion

WORLD RELIGION 102
Introduction to Eastern Religions
This course offers students a comparative and historical introduction to Hinduism, Buddhism, Confucianism, and Taoism. Attention is given to primary texts and rituals, historical and doctrinal development, socio-cultural setting and political impact.
3 semester hours

WORLD RELIGION 103
Introduction to Western Religions
This course offers students a comparative and historical introduction to Judaism, Christianity, and Islam. Attention is given to primary texts and rituals, historical and doctrinal development, socio-cultural setting and political impact.
3 semester hours

WORLD RELIGION 204
Hinduism
This course introduces students to the major
World Religion

textual, practical, communal, doctrinal, and philosophical features of Hinduism. Special attention is given to Hindu mythology, the Upanishads, and the Bhagavad-Gita.

World Religion 205
Buddhism
This course introduces students to the major textual, practical, communal, doctrinal, and philosophical features of Buddhism. Special attention is given to Theravada, Mahayana, and Tantric texts.

World Religion 207
Judaism
This course introduces students to the major textual, practical, communal, doctrinal, and philosophical features of Judaism. Special attention is given to the Hebrew Bible (Tanakh) and the Holocaust. Differences among contemporary forms of Judaism (Orthodox, Reform, Conservative, and Reconstructionist) are studied in some detail.

World Religion 208
Christianity
This course introduces students to the major textual, practical, communal, doctrinal, and philosophical features of Christianity. Special attention is given to the New Testament. Differences among contemporary forms of Christian community (Roman Catholicism, Orthodoxy, and Protestantism) are studied in some detail.

World Religion 215
Unification Philosophy
This course intends to familiarize students with the unique nature of Unification Philosophy and invite reflection on the ways in which it relates to the Western philosophical tradition. Students will review key areas of inquiry in Western philosophy as well as practical applications of such inquiry. In the process, learners will examine the ways in which these areas of inquiry are addressed in Unification Thought texts and supporting literature. It is expected that the general framework and method of Unification Philosophy, with whatever its strengths and limitations, will become clear through the learning process and encourage speculation and critical discourse on its potential for further development.

World Religion 216
Philosophy of World Religions
A comparison and analysis of the philosophical foundations of some of the world's major religions. Among the religions studied are: Judaism, Christianity, Islam, Hinduism, Buddhism, and Confucianism.

World Religion 229
Confucianism
An examination of the major figures, texts, and ideas of Confucianism. Attention is given to social setting and political influence.

World Religion 230
Taoism
An examination of the major figures, texts, and ideas of Taoism. Attention is given to the dialogue with Confucianism.

World Religion 278
Religion, Peace, and War
This course examines economic, political, and cultural aspects of religious conflict, and proposes a theory for conflict mediation that entails recognizing the key role played by religious institutions and 'cultural rationality' within society. Models of conflict mediation are studied. These theories are practiced in case studies and class models. The relationship of interreligious and conflict mediation is considered.

World Religion 301
World Scriptures
A Study of primary source readings in world religious literature. Attention is also given to critical research methods. In the course we will read from the Upanishads, Bhagavad-Gita, Dhammapada, Koran, Tanakh, New Testament, and the Analects.

World Religion 305*
Comparative Religious Ethics
A comparative study of Hindu, Buddhist, Christian, and Islamic accounts of human rights, ecology, family, violence, and economy. The possibility of developing a universal ethic is considered. Topics vary from semester to semester.

World Religion 348/Sociology 348
Religion and Society
A sociological and anthropological analysis of religion as a universal social institution, with emphasis upon theories of the origins of religion, relationships of religion to other social institutions, study of selected Western and non-Western religions in their socio-cultural contexts, religion as a source of social equilibrium and conflict, and types of religious movements.

World Religion 373
Islam and Democracy
This course aims to address the following questions: Are Islam and democracy compatible? How is religious interest defined? How are Islamic images and institutions used? What is the historical relationship between Islam and politics? When and under what conditions is Islam publicized and politicized? Is Islam compatible with modernity? Is it possible to be modern and Muslim at the same time? How do Islamic scholars deal with the questions of “difference”, democracy, and science? The major task of this course will be to assess how religion makes an impact on politics, state and society and in turn is impacted upon and potentially transformed by society, politics and the state. Instructor’s permission may be required for this course.

World Religion 374
Religion and Politics in the Middle East
This course examines the intersection of religion and politics in the current landscape of the societies of the Middle East. While the West has emphasized separation of church and state, numerous nations and political parties in the Middle East emphasize the relationship between the two and the guiding role that religion is meant to play in political decision making. This course also examines the impact that secularization has had upon religion in the Middle East and it notes how this has played a key role in the development of Islamic militarism and the strengthening of some of the religiously based political parties of the region. Instructor’s permission may be required for this course.

World Religion 375
Religion and Genocide
This course examines religion and politics in
World Religion

the Middle East. Histories of Judaism, Christianity, and Islam, their shared and opposing religious and social ideas, are studied. Particular attention is paid to the state of Israel and the question of a Palestinian state. Topics also include the Six Day War, issues of sovereignty and land, terrorism, and geopolitics. Instructor’s permission may be required for this course.

3 semester hours

WORLD RELIGION 395
Senior Thesis Seminar
Instructor’s permission may be required for this course. Prerequisites: Senior standing, world religions major. Introduction to and preparation of a senior research thesis. May be taken for 6 semester hours

WORLD RELIGION 428
Socio-Political Implications of Religion
Once considered an archaic force, destined to wither away as nations underwent rapid economic development, religion has instead gained renewed interest as a factor in contemporary political life. However, this is not merely a course on comparative religion. It is a course that surveys and compares the role of religion in global politics, international relations, and domestic policy. It is clear that religion has and continues to play a major role in the politics of nation-states and the development of the international system. While the world seemed primarily focused on the recent role of political Islam, this course recognizes the role of the major religions (defined as those faiths with a “world-wide” presence) in the shaping of politics in the domestic contexts of nations and world politics. Instructor’s permission may be required for this course.

3 semester hours
Graduate Courses of Instruction
Courses numbered: 400-499
—Open to graduate students and to qualified undergraduates. I.E. These are Graduate Classes that are open to qualified undergraduates with departmental permission

Courses numbered: 500 and above
—Open to graduate students only

Student experience may suggest exceptions are warranted. In those instances, students should consult with their advisors. Deans have authority to approve exceptions.

Some graduate courses are offered every year, but may be scheduled over a two-year or three-year cycle. It is, therefore, essential that graduate students should carefully plan entire programs with their graduate advisors so that they will be able to register for all required courses over the time span in which they expect to complete the degree. The University reserves the right to limit the number of students registered in any graduate course, and also the right to cancel any course for which there is insufficient enrollment.

Accounting

ACCOUNTING 400
Financial Accounting
This course is an introduction to American financial accounting principles based on FASB and IASB, including the measurement, processing, and communication of accounting information. Users of such accounting information include business owners, managers, creditors, prospective investors, and others interested in the financial condition of an entity and the results of its operations. Topics covered include the accounting cycle, merchandising, services, fixed assets and corporate accounting issues. Prerequisite: Admission to graduate study.
3 semester credits

ACCOUNTING 505
Managerial and Cost Accounting
This course provides an introduction to managerial and cost accounting used by management in conducting daily operations, planning future operations, and developing overall business strategies. The objective is to gain an understanding of the role of accounting in the management process of planning, directing, controlling, and improving the organization’s objectives (goals) and to translate those objectives into a course of action. Prerequisites: ACCT 400 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

ACCOUNTING 510
Intermediate Accounting
This course applies generally accepted accounting principles to the preparation of financial statements, including balance sheets, income statements, statement of cash flows, and retained earnings statements. Accounting for leases, employee benefits, deferred taxes and other specialized accounting topics will also be explored. Prerequisites: ACCT 400 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

ACCOUNTING 520
Auditing
This course examines laws and methods for conducting commercial audits. Ethics, attestation standards, controls and fraud detection are among the topics that will be discussed. Application of generally accepted accounting practices to the review of financial statements, as well as the responsibility of the certified public accountant to the various users of the statements will also be explored. Prerequisites: ACCT 400, ACCT 510 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

ACCOUNTING 530
Personal Taxation
This course is an overview of the major types of personal taxes used by governments to raise revenue. Emphasis is placed on the taxation of individuals and tax planning considerations for the individual. Prerequisites: ACCT 400 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

ACCOUNTING 535
Business Entity Taxation
This course is an overview of the major types of corporate and business entity taxes used by governments to raise revenue. An emphasis is placed on the tax issues of different business forms, tax management and tax planning considerations for the business entity. Prerequisites: ACCT 400, ACCT 530 and completion of all required Accounting concentration courses or concurrent registration in final required concentration courses.
3 semester credits

ACCOUNTING 540
Advanced Financial Accounting
This course is an overview of selected accounting topics of interest to international business students. Topics include current practice in accounting for business mergers or acquisitions, accounting for stock investments in affiliated companies, an introduction to consolidated financial statements, accounting for branch operations and an introduction to accounting for state and local governmental units. Prerequisites: ACCT 400, 510 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

ACCOUNTING 545
Financial Reporting and Analysis
This course is an overview of generally accepted accounting principles underlying the content of financial statements including alternative inventory valuation methods, lease accounting, segment reporting and reporting for employee benefit plans. Students study and analyze corporate annual reports and government and not-for-profit financial statements. Prerequisites: ACCT 400, ACCT 510, ACCT 540 and completion of all required accounting concentration courses or concurrent registration in final required concentration courses.
3 semester credits

ACCOUNTING 555
Advanced Auditing
This course provides understanding of laws and methods for conducting audits. It includes reviewing the engagement to provide reasonable assurance the audit objectives are achieved. It also includes evaluation of information obtained to reach and to document engagement conclusions including: performing analytical procedures, evaluating the sufficiency and competence of audit evidence and document engagement conclusions, and reviewing the work performed to provide reasonable assurance the objectives are achieved. It also develops proficiency in preparing communications to satisfy engagement objectives including: preparing reports, preparing letters and other required communications, and other related matters. The course prepares students to pass the CPA exam and to do professional audits. Prerequisite: Undergraduate degree and approval of the State of Connecti-
Accounting • Acupuncture

cut to take the CPA exam. Offered Annually
3 semester hours

ACCOUNTING 556
Accounting Regulations
This course provides the required knowledge for accountants in federal taxation and business law. The curriculum provides a working knowledge of federal taxation of individuals, corporations, partnerships, estates and trusts. It covers the concepts of business law, debtorcreditor relationships, government securities acts, employment regulations and environmental regulations. It also provides knowledge of professional and legal responsibilities including professional conduct of accountants. The course curriculum includes all of the CPA exam materials. Prerequisite: Undergraduate degree and accounting courses to qualify to sit for the CPA exam. Offered Annually
3 semester hours

ACCOUNTING 557
Business Environment & Concepts for Accountants
This course will provide current knowledge in the business environment as it relates to the accounting profession. By the end of the course the student should have professional competency in corporate governance, economic concepts and analysis, financial management, information systems and communications, strategic planning and operations management.
3 semester hours

ACCOUNTING 558
Financial Accounting & Reporting
This course provides an in-depth overview of selected advanced accounting topics required in the accounting profession. By the end of the course, the student should have professional competency in performing accounting work related to the four financial statements: balance sheet, income statement, equity statement, and statement of cash flows. In addition, the course will address the issues of partnerships, business combinations, governmental accounting, and non-profit accounting.
3 semester hours

ACCOUNTING 560
International Accounting
This course examines the diverse accounting practices employed by different countries and their effects on multi-national firms’ operation, as well as efforts to standardize IASB/FASB rules. Performance evaluation in multinational enterprises, impact of differences in national accounting principles and practices, and accounting under central planning is also examined. Discussion topics include the critical problem areas such as taxation, transfer pricing, financial planning, and information systems within an international framework. Prerequisites for Accounting: ACCT 400 and completion of all required accounting concentration courses or concurrent registration in final required concentration courses. Prerequisites for International Business: ACCT 400 and completion of all core courses or concurrent registration in final required core courses.
3 semester hours

Acupuncture

Acupuncture Practice and Techniques (APT)

APT 511
Point Location I
This course will serve as the foundation of the acupuncture point selection series. Meridian theory using concepts of the Jing Luo system, including main and secondary vessels will be reinforced. This course provides the student with the knowledge and skills to physically locate acupuncture points of the lung, large intestine, stomach and spleen, heart and small intestine, urinary bladder, kidney, and pericardium channels. Students will focus on how to locate points effectively, accurately, and quickly as preparation for clinical application as well as college and national examinations. Students will also learn the major function(s) and indication(s) of the Lung, Large Intestine, Stomach, Spleen, Heart, Small Intestine, Urinary Bladder, Kidney and Pericardium channel points. Co-requisite/Prerequisite: ATD 513 TCM Diagnosis 1, ABS 511 Anatomy 1.
1.5 lecture hours, 1 laboratory hour, 2 semester credits.
Offered: Fall and summer semesters

APT 523
Point Location II
This is a continuation of the previous course and will focus on the Triple Warmer, Gall Bladder, Liver, Governing Vessel ("Du"), Conception Vessel ("Ren") and extra points. Additional instruction is given in regional point selection and point combinations. Prerequisites: ATD 513 TCM Diagnosis 1, ABS 511 Anatomy 1.
2 lecture hours, 1 laboratory hour, 2 semester credits.
Offered: Spring and summer semesters

APT 512
Meridian Theory
Meridian (a.k.a. Channel) theory is the basis of diagnosis and acupuncture treatment. This course is designed to provide the necessary instruction and training for the student to be familiar with meridian theory including regular, extra and other meridian systems. Corequisites/Prerequisites: ATD 512 TCM Theory and ATD 513 TCM Diagnosis 1.
2 lecture hours, 2 semester credits.
Offered: Fall and summer semesters

AWB 521
TCM Safe Practices
This course prepares the student for emergency situations both in and out of the office. CCAOM Clean Needle Technique and a review of Occupational Safety and Health Administration (OSHA) standards are presented. In addition the student will practice safe and proper needling, moxibustion, bleeding, electrical stimulation and cupping techniques. Allopathic treatments along with natural remedies for common complications of acupuncture and related therapies are discussed. CPR certification in emergency procedures is achieved. Prerequisites: none.
2 lecture hours, 2 semester credits.
Offered: Spring and summer semesters

APT 614
Acupuncture Techniques I
This course covers the basic principles of acupuncture treatment for diseases involved with different pathogenic factors, tissues and organs. Special point selection based on Root-Branch, Origin-End, Path of Qi, Five Element and Eight Parameter diagnoses are covered. Indications and contraindications of moxibustion, scalp acupuncture and electrical acupuncture stimulation are covered. Prerequisites: APT 511 and APT 523: Point Location I and II.
2 lecture hours, 2 laboratory hours, 3 semester credits.
Offered: Spring semester

APT 625
Acupuncture Techniques II
This course covers functions, indications and
Acupuncture

needling methods of the Well, Spring, Stream, River, Sea, Source, Luo, Xicleft, Back Shu, Front Mu and Lower He-Sea, Eight Influential, Eight Confluent and important crossing points. Continuing practice in needling, moxi-bustion and cupping techniques is included. In addition, the prevention and treatment of acupuncture complications is covered. Prerequisite: APT 614 Techniques 1. 2 lecture hours, 2 laboratory hours, 3 semester credits.

Offered: Spring semester

APT 626 Auricular & Scalp Acupuncture

This course introduces the student to various forms of microsystem acupuncture, focusing on auricular and scalp systems. The student learns the respective maps of the scalp and ear, clinical applications and treatment strategies. Corequisite/Prerequisite: APT 614 Acupuncture Techniques 1. 1 lecture hour, 1 semester credit.

Offered: Spring semester

APT 718 Pediatric Acupuncture

The special diagnostic and treatment skills required for the treatment of patients less than 12 years of age are discussed. The balance of safety for the patient and treatment efficacy is emphasized. Prerequisite: APT 625 Acupuncture Techniques II. 1 lecture hour, 1 semester credit.

Offered: Spring semester

APT 637 Japanese Acupuncture Techniques

This course covers the unique treatment strategies and protocols developed by Japanese acupuncture masters. Prerequisite: APT 614 Acupuncture Techniques I. 1 lecture hour, 1 semester credit.

Offered: Summer semester

Asian Medicine Theory, Diagnosis and Application (ATD)

ATD 511 TCM History and Philosophy

The student studies the different eras of Chinese history and the effects on TCM Medicine theories. This course includes the study of the development of Naturalism, Philosophical and Religious Taoism, Confucianism, and Buddhism and their contributions to Chinese Medicine. For each philosophy, the course examines how the philosophy views the human relationship to nature, and the human relationship to the universe. In addition, the impact of philosophy and religion on the TCM medical paradigm is explored. Prerequisite: none. 1 lecture hour, 0 laboratory hours, 1 semester credit.

Offered: Fall and summer semesters

ATD 512 TCM Medical Theory

This course includes the classic theories of yin and yang and the Five phases that are fundamental to understanding the TCM medical relationship between humans and the universe. Normal physiology is studied through the fundamental substances (Qi, Blood, Essence, Spirit and bodily fluids), and organs. The basic theory of illness and diagnosis using four examinations (sight, listening and smelling, palpation, and asking) and Eight parameters are covered. Prerequisites: Anatomy and Physiology. 2 lecture hours, 2 semester credits.

Offered: Fall semester

ATD 513 TCM Diagnosis I

The basic theory and characteristics of the pathogenesis and pathogenic factors are covered including the seven emotions, disharmony of Yin and Yang, abnormalities in Qi, Blood, Spirit, Essence and Bodily fluids, and organs. The basic theory in inquiry, palpation, tongue and pulse diagnosis are covered. Diagnoses incorporating the eight parameters as well as root and stem concepts are covered for each of the twelve zang-fu. Prerequisite/Co-requisite: ADT 512 TCM Medical Theory. 2 lecture hours, 2 semester credits.

Offered: Fall semester

ATD 524 TCM Diagnosis II

This course will provide the student with further understanding of TCM Medicine diagnosis, expanding on concepts from TCM Diagnosis I. Traditional Chinese Medicine organ diagnoses, eight principle and febrile disease diagnoses will be stressed. In addition, treatment principles and acupuncture treatments based on these diagnostic systems will be explored. Differential diagnoses of common disease entities will be explored. Students will also continue to practice pulse and tongue diagnosis. Prerequisite: ADT 513 TCM Diagnosis I. 2 lecture hours, 2 semester credits.

Offered: Spring semester

ATD 515 Seminar 1

This course will help the student to negotiate their first year in the Acupuncture program. The student will be guided through overviews of Chinese Medicine as preparation for integrating material from the entire curriculum. The student will review and update Chinese Medical terminology as well as the range of resources and the different perspectives on this terminology and the concepts contained therein. Diagnostic practical skills such as pulse and tongue diagnosis will be reviewed in a practical group setting. In addition the student will apply concepts of information literacy and its use for analysis of case studies. Prerequisites: none. 1 lecture hour, 1 semester credit.

Offered: Spring semester

ATD 529 Seminar 2

This course will be a continuation of seminar one. The student will be guided through the application and integration of concepts and skills acquired in the first and second semester curricula. The student will apply these through the use of case studies and clinical examples. The basics of applying diagnosis and generation of treatment principles will be reinforced in a collegial setting. Group activities such as case analysis, pulse and tongue analysis and grand rounds will also be reviewed with a deepening understanding of clinical applications of such. Prerequisites: ATD 515. 1 lecture hour, 1 semester credit.

Offered: Fall semester

ATD 618 Seminar 3

This course will help the student gain a deeper understanding of case study skills necessary to become an TCM clinical practitioner. The student will be guided through case study, case analysis and pattern differentiation as utilized in clinical practice as preparation for integrating material from the entire curriculum into the clinical setting. Case presentations and clinical skills utilizing a problem based learning format using TCM principles and evidence-informed clinical practice skills are emphasized. The focus of the case studies for this course is mental/emotional disorders, patterns associated with emotional disorders, and the impact of emotional issues in the acupuncture clinic. In addition, the student will gain a basic understanding of the ethical and counseling issues surrounding licensed practice in the field of Traditional Chinese Medi-
Acupuncture

Prerequisites: ATD 529.
1 lecture hour, 1 semester credit.
Offered: Fall semester

ATD 711
Differential Diagnosis and Pathomechanisms
This course compares and contrasts diagnosis and treatment between Western and TCM diagnoses. Western medical diagnosis of these diseases is incorporated so that the student is able to collaborate with western physicians. Major and common categories of diseases including respiratory tract, infectious, gastrointestinal, genitourinary and musculoskeletal diseases are covered. Prerequisite: ATD 513 TCM Diagnosis I.
2 lecture hours, 2 semester credits.
Offered: Fall and summer semester

ATD 715
TCM Internal Medicine
This course focuses on the diagnosis and treatment of major illness. Treatment planning includes acupuncture, qi gong, and massage. Diagnoses cover respiratory illnesses, gastrointestinal, genitourinary, gynecological, and psychological illnesses. Root-stem. Meridian, Substance and 5 Element treatments are included. Prerequisite: ATD 513 TCM Diagnosis I.
2 lecture hours, 2 semester credits.
Offered: Fall semester.

ATD 717
Advanced Tongue and Pulse Diagnosis
This course is designed to increase the diagnostic skills and clinical applications of these uniquely TCM diagnostic parameters. The student studies healthy and diseased tongues and pulses and discusses how findings in these areas change the treatment principles and strategies. Case studies from the clinical rotations are used to increase both depth and breadth of skill. Prerequisite: ATD 524: TCM Diagnosis II.
1 lecture hour, 1 semester credit.
Offered: Spring semester

ATD 727
Case Studies 1
The student will be guided through case study, case analysis and pattern differentiation as utilized in clinical practice as preparation for integrating material from the entire curriculum into the clinical setting. Case presentations and clinical skills are emphasized through a problem based learning format using TCM principles as the foundation. Emphasis for this class is on cases associated with problems of fluid dynamics, meridian diagnoses and chronic pain, which are frequent chief complaints in the TCM clinical setting. Prerequisite: ATD 520 Seminar 2.
1 lecture hour, 1 semester credit.
Offered: Spring semester

ATD 728
Case Study Organization and Applications
Students learn to transition from the development of pattern diagnosis to TCM treatment principles which then lead to point and modality applications. Emphasis is placed on an accurate assignment of symptoms to pattern diagnosis; logical treatment principles reflecting the priorities and totality of the patterns diagnosis; and the most efficacious acupuncture point and adjunctive modality prescriptions to help the patient achieve health. Prerequisite: ATD 524: TCM Diagnosis II.
1 lecture hour, 1 semester credit.
Offered: Fall and summer semesters

ATD 729
Acupuncture Gynecology
This course is designed to familiarize the student with TCM diagnosis and acupuncture treatments of common gynecologic conditions. Special emphasis is placed on understanding those points forbidden to needle or moxa in cases where the patient’s pregnancy status is unknown. Prerequisite: ATD 524: TCM Diagnosis II.
1 lecture hour, 1 semester credit.
Offered: Fall and summer semesters

Western Biomedicine (AWB)

ACS 511
Evidence-Informed Clinical Practice in Acupuncture
The basic principles of clinical and laboratory research are examined with a special emphasis on the applications of acupuncture and TCM techniques in the research setting. Application of research to case evaluation will be emphasized. Prerequisite: none.
1 lecture hour, 1 semester credit.
Offered: Fall semester

AWB 621
Medical Ethics
This course is designed to provide the student with a basic understanding of the ethical issues surrounding practice in any medical field. Upon completion of this course, the student will be able to identify concepts of medical and professional ethics as they apply to the practice of health care. Prerequisite: none.
1 lecture hour, 1 semester credit.
Offered: Spring semester

ABS 511
Anatomy 1
This course provides an in-depth study of the macroscopic human anatomy and covers the structure of the trunk and neck regions. Clinical aspects of the vascular and neurological relationships of these regions are emphasized. Instruction includes lectures and interactive media software. Prerequisite: none.
4 lecture hours, 4 semester credits.
Offered: Fall semester

ABS 522
Anatomy 2
This course is a continuation of Anatomy 1 and covers the structure of the head and extremities. Clinical aspects of the neurological and vascular relationships of these regions is emphasized. Prerequisite: ABS 511 Anatomy 1.
4 lecture hours, 4 semester credits.
Offered: Spring semester

ABS 515
Physiology 1
This course emphasizes the function of cellular structures which regulate homeostasis as well as their role in cell division and genetic control of protein synthesis. Emphasis is placed on the role of the cell membrane in the control of cellular events. The effects of physiology on hormones, their role in homeostasis, and the functional changes associated with homeostasis are considered. Prerequisite: none.
2 lecture hours, 2 semester credits.
Offered: Fall semester

ABS 525
Physiology 2
This course is a study of physiology at the organ and systems level. Included is the study of the circulatory, respiratory, renal, cardiovascular, gastrointestinal and urogenital systems. Also included is the study of the endocrine system and its interrelationships with various organs and systems. There is an integration of normal physiology with pathophysiology and clinical concepts. Prerequisite: ABS 515.
2 lecture hours, 2 semester credits.
Offered: Spring semester

AWB 523
Pharmacology
This course examines the most commonly used pharmacologic agents to be encountered in the clinical setting. The general principles
of pharmacology (pharmacodynamics and pharmacokinetics) are covered. Uses and side effects of antibiotics, anti-inflammatory agents, hormones and cardiac drugs are surveyed. Drug-nutrient and drug-herb interactions are discussed. Prerequisite: none.

1 lecture hour; 1 semester credit.
Offered: Spring semester

**AWB 522 Research Methodology**

The basic principles of clinical and laboratory research are examined with a special emphasis on the applications of acupuncture and TCM techniques in the research setting. Prerequisite: none.

1 lecture hour; 1 semester credit.
Offered: Fall semester

**ACS 611 Pathology 1**

This course is a study of the pathophysiologic process and how this process alters the gross, microscopic and clinical manifestations of disease. Basic pathological processes of inflammation, repair, degeneration, necrosis, immunology and neoplasia are presented. Prerequisite: ABS 525 Physiology 2.

2 lecture hours, 2 semester credits.
Offered: Fall semester

**ACS 624 Pathology 2**

This course is the continuation of the pathologic processes of various diseases. This course emphasizes the basis of systemic diseases of the cardiovascular, respiratory, gastrointestinal, urogenital, endocrine, hepatobiliary, renal and pancreatic systems. Prerequisite: ACS 611 Pathology 1.

4 lecture hours, 4 semester credits.
Offered: Spring semester

**ACS 612 Clinical Diagnosis 1**

This course covers the techniques used for physical examination for various systems of the body. Skills taught develop an appreciation for normal variations and abnormalities associated with disease states. The student is taught to recognize the signs and symptoms of common diseases. Prerequisites: ABS 511, ABS 522, ABS 515, ABS 252.

3 lecture hours, 2 lab hours, 4 semester credits.
Offered: Fall semester

**ACS 623 Clinical Diagnosis 2**

This course is a continuation of Clinical Diagnosis 1. Prerequisite: ACS 612.

3 lecture hours, 2 lab hours, 4 semester credits.
Offered: Spring semester

**ACS 724 Public Health**

This course covers current environmental and public health concerns with an emphasis on the role of the acupuncturist in these issues. The course integrates health with diet, water and air pollutants, noise and substance abuse. Recognition of major communicable diseases is included. Prerequisite: ABS 525 Pathology 2.

2 lecture hours, 2 semester credits. (online course)
Offered: Spring semester

**ACS 613 Lab Diagnosis**

This course introduces the student to the appropriate use and interpretation of laboratory tests. Prerequisites: ABS 511 and ABS 525.

2 lecture hours, 2 semester credits.
Offered: Fall semester

**ANT 521 Western Nutrition**

This course provides the foundation for therapeutic nutrition. It explores the biochemistry of macronutrients as well as vitamins and minerals. Deficiencies, toxicities, therapeutic uses and appropriate doses are examined. An assessment of dietary needs and the application of therapeutic nutrition in treating individual diseases and syndromes are also taught. Prerequisites: none.

2 lecture hours, 2 semester credits.
Offered: Spring semester

**AHM 521 Herbal Medicine Survey (AHM)**

**AHM 513 Traditional Chinese Dietetics**

This class introduces the student to the eastern understanding of how food influences human health. Foods and food products are surveyed according to Asian categorization. Food groups are categorized by nature, temperature, taste, element, indications and contraindications. Treatment of the major categories of organ (zang-fu) disorders using foods and food combinations are covered. Prerequisite: ADT 513 TCM Diagnosis 1.

2 lecture hours, 2 semester credits.
Offered: Fall semester

**AHM 612 Introduction to Chinese Herbal Remedies**

This survey course introduces the student to the diagnostic and treatment strategies specific to TCM herbal therapies. The student is introduced to major herbs and formulas of China, their uses, contraindications and drug-herb interaction. Patient safety issues are also addressed. Prerequisite: ADT 513 TCM Diagnosis 1.

1 lecture hour, 1 semester credit.
Offered: Fall semester

**AHM 613 Patent Remedies**

This course will survey 30 prominent, TCM herbal, patent formulas. Students will be introduced to the fundamental pharmacology of these formulas and subsequently, the contraindications, toxicities and potential drug interactions for these patent formulas. Safety, legal and manufacturing issues will also be highlighted. Prerequisite: AHM 612: Introduction to Chinese Herbal Remedies.

2 lecture hours, 2 semester credits.
Offered: Spring semester

**AHM 614 Dispensary Management**

This course will develop knowledge and skills related to TCM dispensary management. Students will learn how to support the clinical and health promotion work of the peripheral dispensary by keeping all needed support systems running well.

1 lecture credit, 18 hours. Prerequisites: none
Offered: Summer semester

**AHM 635 Pharmacognosy and Pharmacology of Chinese Herbs**

Chinese material medical are often prescribed in complex formulae. Understanding the chemistry, interactions, extraction methodology, and drug interactions allows TCM practitioners better insights to possible adverse effects, from drug-herb interactions, herb toxicities to lack of expected (or any) outcomes from prescribed formulae. Several recorded incidents of adverse reactions have occurred to Chinese herbs over the past 12 years. In most cases, the incidents have involved mul-
Acupuncture

tiple patients consuming the same or similar substance, rather than isolated case reports. It is important to review the unique aspects of Chinese medicine) which are of relevance to understanding these issues. Prerequisites: ACH 523 Chinese Herbal Theories & Triple burner theories.

1 lecture credit, 18 hours.

Offered: Summer semester

**AHM 616**

**Ethical and ecological considerations of Chinese materia medica**

The traditional practice of using endangered species (plant and animal) is controversial within TCM. Comprehensive Chinese herbal textbooks often discuss substances derived from endangered species, emphasizing alternatives. Poaching and black market issues with animal products, particularly tiger bone, rhinoceros horn, seahorse and bear bile have all raised ethical and ecological concerns in the use of Traditional Chinese formulae. In this course, we will discuss the ethical and ecological impacts of TCM materia medica on the health of the individual and the world. Prerequisites: none

1 lecture credit, 18 hours.

Offered: Fall semester

**Movement, Respiration and Bodywork Studies (AMR)**

**AMR 511**

**Taijiquan 1**

This introductory course in therapeutic movement explores how musculoskeletal alignment, breathing, and mental awareness affect the meridians through practice of this traditional exercise. Prerequisite: none.

0 lecture hours, 1.5 laboratory hours, 1 semester credit.

Offered: Fall semester

**AMR 522**

**Taijiquan 2**

This is a continuation of Taijiquan 1. Prerequisite: AMR 511 Tai Ji Chuan 1.

0 lecture hours, 1.5 laboratory hours, 1 semester credit.

Offered: Spring semester

**AMR 624**

**Qigong 1**

This course teaches exercises designed to regulate specific meridians, muscles and joints as well as how to choose, integrate and teach the appropriate exercises in a clinic setting. Prerequisite: AMR 522: Taijiquan 2.

0 lecture hours, 1.5 laboratory hours, 1 semester credit.

Offered: Fall semester

**AMR 624**

**Qigong 2**

This course is a continuation of Qi Gong 1. Prerequisite: AMR 613 Qi Gong 1.

0 lecture hours, 1.5 laboratory hours, 1 semester credit.

Offered: Spring semester

**AMR 627**

**Tuina 1**

In this course, students integrate knowledge of anatomy with skills in palpation and massage. Introductory soft tissue technique is taught as a way to assess muscle, acupoints and meridians as well as provide a practical therapeutic treatment. Prerequisite: ABS 522 Anatomy 2.

1 lecture hour, 2 laboratory hours, 2 semester credits.

Offered: Summer semester

**AMR 715**

**Tuina 2**

The student learns Tui Na soft tissue manipulation technique as well as its history, theory, application, and indications. Treatments for back pain and conditions of the upper limb are the primary focus. Prerequisite: ATD 513 TCM Diagnosis 1 and APM 621: Palpation/Massage.

1 lecture hour, 2 laboratory hours, 2 semester credits.

Offered: Fall semester

**AMR 726**

**Tuina 3**

This course is a continuation of TCM Massage 1. Tui Na treatments for the lower leg and internal conditions are the primary focus. Prerequisite: AMR 715 TCM Massage 1.

1 lecture hour, 2 laboratory hours, 2 semester credits.

Offered: Spring semester

**Counseling, Communications and Practice management**

**APS 621**

**Psychological Assessment**

The primary focus of this course is the diagnosis of the various psychiatric diseases according to the Diagnostic and Statistical Manual of Mental Disorders. Included are psychological assessment considerations and treatment modalities. Prerequisites: none.

2 lecture hours, 2 semester credits.

Offered: Spring semester

**APP 721**

**Practice Management**

Students are taught the current procedural practices for the operation of a private practice. In addition, the practical aspects of operating a practice as a small business are discussed. Students are encouraged to begin thinking about their personal career path as a complementary medicine practitioner in private practice, group practice, hospital-based practice or as an TCM educator. Prerequisites: none.

2 lecture hours, 2 semester credits.

Offered: Spring semester

**ACH: Asian/Chinese Herbology**

**ACH 511**

**Chinese Formulae for Channel Obstruction Syndromes**

This course will indicate Chinese Herbal Formulae for commonly encountered bi syndromes and channel obstruction syndromes (pain syndromes). This course will examine in detail at least 20 different TCM formulae and 35 different individual herbs in the TCM materia medica. In the course of this presentation:

a) an explanation of the Traditional Chinese Medicine pathomechanism for various pain complaints associated with bi syndromes and channel obstruction syndromes will be provided,

b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat based on treatment principles will be provided
c) possible interactions and contraindications between commonly utilized drugs for obstruction syndromes & Chinese Herbal Formulae will be provided,
d) Summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal Patent Remedies & conventional care will be examined. Prerequisites: ATD 524 TCM Diagnosis II.

2 lecture credits, 36 hours.

Offered: Fall semester

**ACH 512**

**Chinese Herb Formulae for Common Ailments**

This course will cover frequently prescribed Chinese Herbal Formulae for the ten most commonly encountered diseases in a TCM ambulatory practice. At least 20 formulae and
35 discrete herbs will be covered in depth. In the course of this presentation: a) an explanation of the Traditional Chinese Medicine pathomechanism for discrete diseases will be provided; b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat the disease will be provided; c) possible interactions and contraindications between conventional/drug treatments & Chinese Herbal Formulae will be provided; and d) summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal formulae & conventional care will be examined. Prerequisites: ATD 524 TCM Diagnosis II. 2 lecture credits, 36 hours. Offered: Fall semester

ACH 523
Chinese Herbal Theories & Triple Burner Theories
This course will describe and analyze the twenty major categories that Chinese Herbal Formulae are categorized into for the Qi, Blood & Body Fluids, Zang-Fu & Channel Theory Paradigms in the modern TCM Materia Medica. Within these categories, the fundamental treatment strategies that these formulae employ, the role that individual herbs within the formulae play to accomplish the treatment strategy, and the accessibility of patent formulas for these formulae will be explored. At least 20 herbal formulae and 35 different herbs will be explored in depth including: a) an explanation of the Traditional Chinese Medicine pathomechanism for various complaints will be provided, b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat based on treatment principles will be provided c) possible interactions and contraindications between commonly utilized drugs for obstruction syndromes & Chinese Herbal Formulae will be provided, d) summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal formulae & conventional care will be examined. Prerequisites: ACH 512 2 lecture credits, 45 hours. Offered: Spring semester

ACH 635
Clinical Application of Herbs 1
This course will amplify and reiterate content from ACH 511, ACH 512, ACH 523 and ACH 524. The student will explore the traditional Chinese Medicine Materia Medica in depth and learn to discriminate between herb categories, their general applications and associated Treatment Principles and individual, unique applications, signs and symptoms. The student will explore at least 100 herbs including reiterating and amplifying content from the previous courses. This course will focus on Herbs that Transform Phlegm and Stop Coughing, Herbs that Relieve Food Stagnation, Herbs that Regulate Qi, Herbs that Transform & Convey Damp, and Herbs that Inhibit the Blood. This course will serve as partial basis for the formulae courses. Prerequisites: ACH 635 2 lecture credits, 36 hours. Offered: Spring semester

ACH 628
Clinical Application of Herbs 2
This course will amplify and reiterate content from ACH 511, ACH 512, ACH 523 and ACH 524. The student will explore the traditional Chinese Medicine Materia Medica in depth and learn to discriminate between herb categories, their general applications and associated Treatment Principles and individual, unique applications, signs and symptoms. The student will explore at least 100 herbs including reiterating and amplifying content from the previous courses. This course will focus on Herbs that Warm the Interior and Expel Cold, Herbs that Tonify the Qi, Herbs that Tonify the Blood, Herbs that Tonify the Yang, Herbs that Tonify the Yin, Herbs that Stabilize and Bind, Substances that Anchor, Settle and Calm the Spirit, Aromatic Substances that Open the Orifices, Substances that Extinguish Wind and Stop Tremors, Herbs that Expel Parasites and Substances for External Application. This course will serve as partial basis for the formulae courses. Prerequisites: ACH 617 2 lecture credits, 36 hours. Offered: Fall semester

ACH 524
Chinese Herbs for Exogenous Disease Patterns
This Chinese Herbal Formulae course will address Exogenous disease including San Jiao, 6 Channel (Shang Han Lun), and 4 portion (Wen Bing) diseases. At least 20 herbal formulae and 35 different herbs will be explored in depth including: a) an explanation of the Traditional Chinese Medicine pathomechanism for various complaints will be provided, b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat based on treatment principles will be provided c) possible interactions and contraindications between commonly utilized drugs for obstruction syndromes & Chinese Herbal Formulae will be provided, d) summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal formulae & conventional care will be examined. Prerequisites: ACH 512 1.5 lecture credits, 27 hours. Offered: Spring semester
**Acupuncture**

**ACH 619**

**Chinese Formulæ 2**

This course will be a continuation and amplification of the previous herbal curriculum (ACH 511, ACH 512, ACH 523, ACH 524) with an emphasis on herbal formulæ. The student will explore at least 80 formulæ including reiterating and expanding content from previous courses. This course will focus on Formulæ that Warm and Disperse Cold, Promote the Movement of Qi, Invigorate Blood, Clear Heat and Stop Bleeding, Transform Phlegm and Reduce Food Stagnation. The student will learn the name, actions, indications, cautions and contraindications of the classical base formulæ according to the traditional categorization based on treatment principles. In addition the student will explore the traditional structure of herbal formulæ as a prelude to formula modification (general, assistant, etc.). Prerequisites: ACH 619

2 lecture credits, 36 hours.

Offered: Fall semester

**ACH 641**

**Chinese Formulæ 3**

This course will be a continuation and amplification of the previous herbal curriculum (ACH 511, ACH 512, ACH 523, ACH 524) with an emphasis on herbal formulæ. The student will explore at least 80 formulæ including reiterating and expanding content from previous courses. This course will focus on Formulæ that Tonify, Stabilize and Bind, Nourish the Heart and Calm the Shen, Open the Orifices and expel Parasites. The student will learn the name, actions, indications, cautions and contraindications of the classical base formulæ according to the traditional categorization based on treatment principles. In addition the student will explore the traditional structure of herbal formulæ as a prelude to formula modification (general, assistant, etc.) External formulæ for pain syndromes will be addressed as well as special preparation (“pao-zhi”). Prerequisites: ACH 619

2 lecture credits, 36 hours.

Offered: Spring semester

**Clinical Services (ACS)**

**ACS 711**

**Preceptorship I**

The students observe and administer care in established acupuncture facilities under the supervision of licensed physicians and acupuncturists. This exposure to a variety of clinical settings helps prepare the student for both private practice and integrative patient care. Prerequisite: Completion of all first year courses.

0 lecture hours, 4 laboratory hours, 2 semester credits, 75 clock hours total.

Offered: Fall, spring and summer semesters

ACS 722

**Preceptorship II**

This is a continuation of ACS 671. Students increase their clinical skills working under a variety of health care professionals, all of whom must have the appropriate credentials to practice in the field of acupuncture. Prerequisite: ACS 671.

0 lecture hours, 4 laboratory hours, 2 semester credits, 75 clock hours total.

Offered: Fall, spring and summer semesters

**ACS 723**

**Clinical Education 3**

Students continue to administer care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. Eligibility for the course is successful completion of the previous clinical course. Prerequisite: ACS 722 Clinical Education 2.

0 lecture hours, 12 laboratory hours, 8 semester credits, 220 clock hours total.

Offered: Fall, spring and summer semesters

**ACC: Clinical Education**

**ACC 611**

**Chinese Herbal Clinic 1**

Under the supervision of licensed faculty members, the interns start by observing patients for 20 clinic hours, then move into the area of direct patient care. All patient diagnoses and management plans are reviewed and approved by a clinic faculty member prior to the initiation of patient care. The student will begin to practice clean needle technique, removal and disposal of needles. The student will acquire proficiency in tongue and pulse diagnosis. Prerequisite: Pass Clinical Entrance Exam.

0 lecture hours, 4 lab credits, 130 clock hours total.

Offered: Fall, spring and summer semesters

**ACC 632**

**Chinese Herbal Clinic 2A**

Students continue to administer Chinese herbal care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. Eligibility for the course is successful completion of the previous clinical rotation. Prerequisite: ACC 611 Chinese Herbal Clinic 1.

0 lecture hours, 2 lab credits, 65 clock hours total.

Offered: Fall, spring and summer semesters

**ACC 723**

**Chinese Herbal Clinic 2B**

Students continue to administer Chinese herbal care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. In addition to utilizing prepared formulæ, student interns now begin to mix herbal powders in individualized formulæ. Eligibility for the course is successful completion of the previous clinical rotation. Prerequisite: ACC 611
Biomedical Engineering

BIOMEDICAL ENGINEERING 410 (BMEG 410/ELEG 410)
Biosensors
This course will provide an overview of biosensors, including their use in pharmaceutical research, diagnostic testing, and policing the environment. Topics include the fabrication, characterization, testing, and simulation. The transducer phenomenology, biosensor structure, and sensor performance will also be covered.
3 semester credits

BIOMEDICAL ENGINEERING 412 (BMEG 412/ELEG 412)
Bioelectronics
Discipline of biomedical Engineering has emerged due to integration of engineering principles and technology into medicine. This course is intended for engineers and engineering students interested in pursuing career in biomedical engineering and health related field. This course will first introduction Applications of electrical engineering principles to biology, medicine, behavior, or health will be identified during first half of the semester. Second half of the course will focus on research, design, development and application of biosensors and Bioelectronics.
3 semester credits

BIOMEDICAL ENGINEERING 413
Bioinformatics
Biology has become target of more algorithms than any other fundamental science. This course is about designing and developing algorithms for biological problems. Students will work with popular bioinformatics algorithms not only to understand algorithms design mythologies but also to identify strengths and potential weaknesses in traditional bioinformatics algorithms.
3 semester credits

BIOMEDICAL ENGINEERING 440 (BMEG 440/MEEG 440)
Ergonomic Factors in Design
This course introduces the student to the concepts of ergonomics. Ergonomics is the study of fitting the workplace and devices to the capabilities of the human worker. Students will have an understanding of the beginning and evolution of the field of ergonomics. They will learn to recognize risk factors associated with repetitive stress disorders (e.g., carpal tunnel syndrome) and potential sprain/strain injuries as well as be familiar with the body areas affected. This course covers principles of physiology and biomechanics and how they apply to workstation and tool design.
3 semester credits

BIOMEDICAL ENGINEERING 443 (BMEG 443/ELEG 443)
Digital Signal Processing
This is an introductory course in Digital Signal Processing (DSP) for graduate Electrical and Computer Engineering students. Sometime will be spent initially reviewing major concepts in signals and systems. Major topics to be covered in ELEG 443 include: time-domain analysis of discrete-time (DT) systems (convolution, difference equations), the transform, frequency analysis for DT signals and systems (DFT, FFT), digital filter design, and selected advanced topics as time permits.
3 semester credits

BIOMEDICAL ENGINEERING 446 (BMEG 446)
Introduction to MEMS
MEMS (Micro Electro Mechanical Systems) refers to devices and system with very small size in the range of microns. It is one of the most important high technologies developed in 20th century. This course covers the fundamentals of MEMS. It includes the introduction to MEMS, basic microfabrication techniques, MEMS materials and their properties, MEMS device design and simulation, working principle analysis, MEMS device fabrication sequence, MEMS packaging and assembly, signal testing, MEMS applications (inertial MEMS, MOEMS, BioMEMS, RFMEMS, etc.).
3 semester credits

BIOMEDICAL ENGINEERING 451
Introduction to BioMEMS
This course will introduce to students the fundamentals of BioMEMS, the application of MEMS (Microelectromechanical Systems) for biological applications. The topics include microfabrication, microfluidics, bio-sensors, actuators, micro/nan drug delivery systems, micro total analysis systems and lab-on-a-chip devices, and detection and measurement systems. The main focus is to understand the fundamental challenges and limitations involved in designing and fabricating various BioMEMS and BioNEMS devices.
3 semester credits

BIOMEDICAL ENGINEERING 506 (BMEG 506/MEEG 506)
Transport Phenomena in Biological Systems
This course provides understanding of the physical, chemical and biological processes governing the movement of mass and transmission of forces throughout an organism, which are important to biomedical engineers in the design and operation of biomedical devices. Engineering fundamentals of transport phenomena (fluid flow, heat transfer, and mass transfer) will be discussed in biological applications. Mathematical modeling will be used to analyze the biological transport and biochemical interactions in physiological systems, such as cardiovascular and respiratory systems. Numerical modeling will also be introduced to simulate some biological processes to enhance mathematical understanding.
3 semester credits

BIOMEDICAL ENGINEERING 507
Algorithms in Bioinformatics
This course is tailored for students both in biomedical engineering department and computer science and engineering department desiring to understand the issues concerning representing and analyzing genomes, sequence of proteins etc. The course is about applying the techniques (computational methods and systems) developed in computer science to solve problems in molecular biology such as DNA or protein sequences alignment problem, genome rearrangement problem, protein folding problems and so on. Hidden Markov Models (HMM), Bayesian Model, clustering, decision trees are some of the examples of machine learning methods that will be covered in the course.
3 semester credits
Biomedical Engineering

BIOMETICAL ENGINEERING 508 (BMEG 508/ELEG 508)
Biomechanics
Biomechanics is the application of mechanical principles to living organisms that included bioengineering, research and analysis of mechanism in living organisms, and implementation of engineering principles to and from biological systems. This course can be carried forth on from the molecular level including collagen and elastin, all the way up to the tissue and organ level. Some simple applications of Newtonian mechanics can supply approximations on each level, but precise details demand the use of continuum mechanics.
3 semester credits

BIOMETICAL ENGINEERING 510 (BMEG 510/ELEG 510)
Medical Machines
This course, provides very good introduction and understanding of Electrical Safety, Medical electronics and Medical Machines as applicable. Students often have different background and level of understanding of technical concepts; therefore we will develop necessary background in this course in first few weeks and gradually move from basic to advance topics as listed below in “Class Topics” section. This course will further help by developing approach to design devices and safety features. Behind every invention, law or device, there is always a need, a necessity. Students go from necessity to invention in the class. Since large number of electronic equipments are being used in hospitals and medical centers for patient care and diagnosis or carry out advanced surgeries. This course will enable students to learn the basics principles of different instruments used in medical science.
3 semester credits

BIOMETICAL ENGINEERING 511 (BMEG 511/ELEG 511)
Designs and Development of Biomedical Instrument
This course offers the information to understand and design biomedical instruments. Biomedical instruments contains imaging and monitoring the environment, simulation and modeling, instrument testing, bio-sensors and diagnostics, instrument design and development, therapeutic devices, next generation instrument technology, clinical and regulatory, and etc. The in-depth descriptions of design methods for biomedical instrument will be included in the course.
3 semester credits

BIOMETICAL ENGINEERING 512 (BMEG 512/ELEG 512)
Computational Fluid Dynamics (CFD)
Computational fluid dynamics (CFD) is employed in a wide range of industries and disciplines, such as aerospace engineering, automotive engineering, biomedical science and engineering, chemical engineering, civil engineering, power engineering and sports engineering. Practicing engineers are constantly facing extreme challenges to solve complex fluid flow and heat transfer problems using commercial CFD software. To avoid flawed CFD simulation and results interpretation using commercial CFD packages by users with inadequate training, understanding the fundamental principles that underlie commercial CFD solvers can help the users to effectively harness the power of modern CFD for their research or design. This course is intended as an introduction to the scientific principles and practical engineering applications of CFD. It combines lectures on the CFD principles with projects of research or industrial applications. The emphasis of this course is not to teach the basics of a CFD techniques, but to help the students apply the knowledge gained into practical use of commercial CFD software (COMSOL, ANSYS and/or STAR-CCM+). Students will apply these skills to relevant engineering applications and gain an appreciation of the limitations and advantages of CFD modeling.
3 semester credits

BIOMETICAL ENGINEERING 513 (BMEG 513/ELEG 513)
Biomedical Image Processing
This course is an elective course. The content of this course include the fundamentals of Digital Image Processing and its applications in biomedical field. Sampling and Quantization of signals are mentioned in order to introduce the digital images, some basic relationship between pixels are mentioned. Introduction to Fourier Transformation, Discrete Fourier Transform and Fast Fourier Transformed are explained. MATLAB programming with Image Processing Toolbox will be introduced to empathize and rigid the understanding of students. Others important fundamental theorems, e.g., Image Enhancement, Image Segmentation, Representation and Description are also mentioned. Students are required to implement some programs using the theorems learnt in classes.
3 semester credits

BIOMETICAL ENGINEERING 520 (BMEG 520/BIOI 520)
Physiology
The physiological and biochemical principles that control the function of the human body will be covered. Laboratory work will introduce the student to basic physiologic experimentation, interpretation and presentation of results.
3 semester credits

BIOMETICAL ENGINEERING 530
Instrumentation and Laboratory Experience
This course can be taken in any semester. Working with the program director, engineering or life science, the students will get permission to enter the relevant lab and formulate an experimental plan with the faculty supervisor of that lab. At the end of the lab experience the student will present their lab notebook for inspection to the lab supervisors and the program director.
3 semester credits

BIOMETICAL ENGINEERING 535 (BMEG 535/TCMG 535)
Foundations of Biotech Sciences and Management
This course defines biotechnology as the application of molecular biology for useful purposes. It simulates the real world science and business environments: Information and knowledge are complex, highly specific, fragmented, diverse and vast. No one individual or group or business entity or government agency is able to cover in-depth the entire science and business continuum to succeed and create value to society at large. Value creation has three different aspects: data, information and knowledge assimilation, degree of collaboration and methodology to establish successful knowledge management and business processes. The continuum of the biotechnology industry is shaped by scientific, legal, regulatory, social, economic, technological, political, financial and commercial factors. Understanding the dynamics and linked contributions of the interdisciplinary array of factors which affect commercialization of bioscience discoveries is essential to operate in the biotechnology industry. In this course we are dissecting the biotechnology industry to isolate the key drivers and study their interactions.
3 semester credits

BIOMETICAL ENGINEERING 540 (BMEG 540/BIOI 540)
Advanced Cell and Molecular Biology
The general biological principles that govern all living organisms will be discussed. The
important analytical tools for nano materials

Fundamental Analysis of Nanomaterials

BioMedical engineering 561 (BMeg 541/TCMG 541)

Foundations of Biotechnology and Bioentrepreneurship

In this course we are dissecting the biotechnology industry to isolate the key drivers and study their interactions. Discoveries in science and fast developments in technology combined with financial availabilities offer many entrepreneurial opportunities.

3 semester credits

BIOMEDICAL ENGINEERING 546 (BMeg 546/ELEG 546)

Biosignal Processing

This is an introductory course in Bio-Signal Processing (DSP) for graduate Electrical and Computer Engineering students. Sometime will be spent initially reviewing major concepts in signals and systems. Major topics to be covered in ELEG 546 include: Concepts of signal and image processing, wavelets, classification and clustering, and applications of these concepts to EEG, ECG, EMG, MRI and CT Scans.

3 semester credits

BIOMEDICAL ENGINEERING 560 (BMeg 560/MEEG 560)

Advanced Tissue Engineering

This course deals with specific elements of tissue engineering design and analysis. Approaches to the regeneration of three tissue systems will be analyzed utilizing engineering design. Concepts ranging from tissue development and dynamic growth conditions to ultimate tissue properties will be addressed. Students will be required to acquire understanding and expertise from analysis of primary literature and will complete group presentations on directed approaches to tissue design and engineering in three tissue systems. To ensure in-depth understanding of different aspects of tissue engineering the groups will be required to focus on one or two key aspects in each mini design module.

3 semester credits

Biomedical Materials and Engineering

This course introduces the students with the progress of biomaterials used in biomedical engineering. Starting from early civilizations biomaterials this course discusses modern advanced level biomaterials and their engineering principles associated with their biomedical use. Hip, knee Prostheses, implants, grafts, sutures, stents, catheters materials and their application in Biomedical Engineering are covered. Designed biomaterials such as silicones, polyurethanes, Teflon, hydrogels, bionanocomposites are detailed. Modern Biology and biomedical engineering such as protein absorption, biospecific medical materials, nonfouling materials, healing and foreign body reaction, controlled release etc are discussed. Surface-immobilized biomolecules in patterned surfaces are explained with specific examples of the use of immobilized biomolecules, immobilized cell ligands, and immobilization methods. Recent advances in biomedical engineering from the perspectives of inkjet printing of cells and tissues for 3D medical textiles, nanofibers and films in biomedical engineering by electrostatic spinning, bio-inspired materials through layer by layer (LbL) assembly and biogels and advanced instrumentation in biomedical engineering are updated. Artificial red blood and skin substitutes, orthopedic biomaterials applications adhesives and sealants, diagnostics, biomedical sensors, extracorporeal artificial organs and ethical issues of biomedical engineering are discussed.

3 semester credits

BIOMEDICAL ENGINEERING 569 (BMeg 569/MEEG 569)

Advanced Biomedical Materials and Engineering

This course will cover the advanced level understanding on the different types of biomaterials using in medical purposes and their design. Modern biology in biomedical engineering such as but not limited to protein absorption, immuno isolation, regenerative medicine etc will be covered. Ethical issues in biomedical engineering will be discussed. Cutting edge research on nanobiotechnology that extends to biosensors, 3D biomatrix, advanced diagnostic, dental composites, sealants, adhesives will be covered. Device fabrication aspect of biomedical engineering especially that are at the interface of nanotechnology and biomaterials will be thoroughly discussed.

3 semester credits

BIOMEDICAL ENGINEERING 571 (BMeg 571/MEEG 571)

Ethical Issues in Biomedical Research

This course will be offered as a one hour discussion with a group of students in the instructor’s office keeping in mind the ethical issues dealing with Biomedical Engineering. Health concerns on handling nanobiomaterials, laws and bylaws associated with human subjects and the Food and Drug Administration’s requirements will be discussed. Hence creating an ethical awareness associated with Biomedical Engineering.

3 semester credits

BIOMEDICAL ENGINEERING 580

Tissue Engineering

The objective of this course is to provide students a foundation for the understanding of cell based systems needed for tissue engineering. The structure-property-function relationships...
in normal and pathological mammalian tissues will be covered. A review of the current development of biological substances to restore, maintain, or improve functions that includes strategies to regenerate metabolic organs and repair structural tissues, as well as cell-based therapies to deliver proteins and other therapeutic drugs will be discussed. There are a variety of very important materials issues in tissue engineering, which will be discussed in detail. Cells adherence to the extracellular matrix materials in the body and their enormous effect on cell behavior will be detailed. The physical and chemical properties of these materials will be examined and important materials used in tissue engineering will be discussed.

3 semester credits

BIOMEDICAL ENGINEERING 620
Team Based Research Project
This course must be taken in your last semester of course work or later. This is a team based project. Teams with members from both the life sciences and the quantitative sciences are strongly encouraged. You may have more that on advisor, but one faculty member needs to be identified as the primary advisor. Your capstone project may be based on a single project or multiple projects. Each project, however, must be experimental or simulation in nature and be interdisciplinary. The project results should be publishable in peer reviewed journals. All projects must be approved by the University's BME program committee prior to student enrollment in the BME 620 course.

Business Capstone

BUSINESS CAPSTONE 597
Integration and Application: Strategy
This is a capstone course dealing with the development and implementation of business strategy and planning within a framework of ethical decision-making, globalization, and managing accelerating change. The student is tested on his/her capability to apply all prior learning to solve actual strategic management problems. The final project of this course is project-based, and shall constitute an outcome assessment of what the student has learned in the MBA program. This project, normally an extensive and comprehensive case study, will be graded by several faculty members representing different and relevant disciplines. Prerequisites: Completion of all core and required courses and completion of all Major courses or concurrent registration with final Major courses. Normally, students enroll toward the end of their MBA program.

3 semester credits

BUSINESS CAPSTONE 596
Independent Study
This course is reserved for a special project that cannot be done in any other course format and is intended to allow a student complete his/her MBA requirements. Students will study a topic approved by their professor and present a substantial written report regarding the topic. Prerequisite: Completion of core courses and required Major courses. Written approval to register by the supervising professor and the Assistant Dean are required. This course is normally taken towards the end of the student’s MBA program.

3 semester credits

BUSINESS CAPSTONE 598
Integration and Application: Thesis
Students will complete a report based on field, library and institutional research to demonstrate ability to conduct investigations in a managerial discipline. The topic of the report may concern any business issue, industry or organization and may be related to the student’s current or future employment. Prerequisites: Completion of all Major courses or concurrent registration with final Major courses. This course should be taken in the final semester of a student’s MBA program and approval of the student’s faculty advisor is required.

3 semester credits

BUSINESS CAPSTONE 595
Independent Study
This course is reserved for a special project that cannot be done in any other course format and is intended to allow a student complete his/her MBA requirements. Students will study a topic approved by their professor and present a substantial written report regarding the topic. Prerequisite: Completion of core courses and required Major courses. Written approval to register by the supervising professor and the Assistant Dean are required. This course is normally taken towards the end of the student’s MBA program.

3 semester credits

BUSINESS LAW 400
Legal Environment of Business and Ethics
Students course focuses on how the legal environment of business impacts business decisions with broad ethical, international, and critical thinking examples throughout. Knowledge of the legal aspects of running a business will enable the student to conduct business within the legal framework and understand the ethical dimension of business decisions. Topics include: Introduction to Business Ethics and the Judicial and Legislative Process; Litigation, Alternative Dispute Resolution, and the Administrative Process; Business Crimes, Torts, and Contracts; the Constitution and Government Regulation of Business; Business Organizations; Employment and Labor Laws; Consumer Protection and Environmental Regulation; and International Law and Ethical Conflicts. Prerequisites: Admission to graduate study.

3 semester credits

Chiropractic

Anatomy

AN511
Cell and Tissue Microscopic Anatomy and Physiology
This course will focus on the study of the microscopic anatomy and physiology of cells and basic tissue type. A major emphasis will be placed on connective, neural and muscular tissue. A working knowledge of the microscopic structure and function of the basic tissue types will provide a framework for understanding how the organization of the tissue contributes to organ and organ system physiology.

3 lecture hours, 3 semester hours

AN512
Functional Anatomy and Biomechanics I: Spine
This course addresses the functional anatomy and biomechanics of the spinal column, ribs and pelvis. Emphasis is placed on the interre-
relationships between the structure and function of the spinal column and its surrounding anatomical structures. Biomechanical principles are incorporated into functional anatomy of a dynamic human musculoskeletal system. Instruction includes lecture, dissection, tutorials, prosection and models.

3 lecture hours, 3 laboratory hours, 4.5 semester hours

AN513  
**General Anatomy I: Viscera**

This course focuses on the anatomy of the organs plus the structure of the muscles, bones and additional tissues of the walls of the human thoracic and abdominopelvic cavities. The neurological, vascular and positional relationships of these organs are discussed with emphasis on the clinical applications. Instruction includes lectures and laboratory with dissection and prosection, osseous structures and models.

3 lecture hours, 3 laboratory hours, 4.5 semester hours

AN514  
**Clinical Embryology**

Embryology covers the gametogenesis, fertilization and structural development from the zygote to birth. This course correlates the embryological development with other courses offered in Semester I. Normal development, clinical correlations and common congenital abnormalities are presented. Emphasis is placed on the skeletal, muscular and nervous systems.

1 lecture hour, 1 semester hour

AN515  
**General Anatomy II: Head and Neck**

This course focuses on the anatomy of the head, including the gross anatomy of the brain and special sense organs, and neck. The neurological and vascular relationships of these regions are discussed with emphasis on clinical applications. Instruction includes lectures, laboratory dissection and prosection and models. Prerequisites: AN511, AN512, AN 513, AN514.

3 lecture hours, 3 laboratory hours, 4.5 semester hours

AN526  
**Functional Anatomy and Biomechanics II: Extremities**

This course is a regional exploration of the appendicular system. Bones, muscle attachment and function, vasculature and innervation are discussed. Emphasis is on understanding function based on attachment and innervation. Relevant clinical problems are presented. Instruction includes lecture, full dissection of pectoral girdle, pelvic girdle, and extremities, presentation of prosections, study of bones and models. Prerequisite: AN513.

3 lecture hours, 3 laboratory hours, 4.5 semester hours

**Biochemistry**

BC511  
**Biochemistry, Metabolism and Nutrition: I**

This course is designed to provide the student with an understanding of the biochemical principles involved in maintaining functional integrity of the body through energies and the principles involved in nutritional balance.

2 lecture hours, 2 semester hours

BC612  
**Biochemistry, Metabolism and Nutrition: II**

This course is a continuation of BC511. Prerequisite: BC511

2 lecture hours, 2 semester hours

**Business Procedures**

BP721  
**Documentation and Insurance Protocols (Billing and Coding)**

The successful student will be able to identify and discuss all of the important aspects of patient communication, medical documentation and insurance protocols/coding. In addition, the successful student will be able to identify and apply appropriate billing protocols regarding filing insurance claim forms.

1 lecture hour, 1 credit hour

BP722  
**Business Procedures and Marketing**

This is a business procedures course that stresses the importance of ethical and legal business management procedures. The class room discussions cover strategic management, chiropractic and health care economics, marketing and image building. Successful completion will prepare the student to enter chiropractic practice.

1 lecture hour, 1 credit hour

**Chiropractic Skills and Technique**

TE511  
**Chiropractic Examination Skills I: Palpation and Biomechanics of the Spine and Pelvis**

This course addresses the biomechanics and chiropractic assessment procedures of the spinal and pelvic joints. The student is introduced to the concepts of biomechanics as they relate to the kinematics and kinetics of the spine and pelvis and the structure and functioning of the tissues of the musculoskeletal system.

2 lecture hours, 2 semester hours

TE511L  
**Chiropractic Examination Skills I: Palpation and Biomechanics of the Spine and Pelvis - Laboratory**

Clinical biomechanics and associated chiropractic assessment procedures of the spine and pelvis are presented and practiced. Emphasis is placed on the diagnostic tools of inspection as well as static and motion palpation as they pertain to the assessment of spinal/pelvic joint functioning.

3 laboratory hours, 1.5 semester hours
Chiropractic

TE522
Chiropractic Examination Skills II: Palpation and Biomechanics of the Extremities
Clinical biomechanics and associated chiropractic assessment procedures of the upper and lower extremities and TMJ are presented and practiced.
2 lecture hours, 2 semester hours

TE522L
Chiropractic Examination Skills II: Palpation and Biomechanics of the Extremities Laboratory
Clinical biomechanics and associated chiropractic assessment procedures of the upper and lower extremities and TMJ are presented and practiced. Previously learned spinal assessment procedures are reviewed and practiced. Prerequisites: TE511L, Co-Requisite AN526
3 laboratory hours, 1.5 semester hours

TE613
Technique Procedures I: Introduction to Full Spine Technique Lecture
This course introduces students to full spine adverse procedures from the cervical spine (C2) to the pelvis. The course will begin with a review of biomechanics and assessment procedures presented in palpation skills TE522 and TE511. Selected spinal conditions will be presented and discussed as they pertain to diagnosis, differential diagnosis and case management. Prerequisites: AN512, TE511 and TE522
1 lecture hour, 1 semester hour

TE613 LAB
Technique Procedures I: Introduction to Full Spine Technique Laboratory
This course introduces students to full spine adverse procedures from the cervical spine (C2) to the pelvis. The course will begin with a review of biomechanics and assessment procedures presented in palpation skills AN512 and TE511. In addition, this course will concentrate on the psychomotor skills required to perform the specified spinal adjustments from cervical spine (C2) to the pelvis. Prerequisites: AN512, TE511L
3 laboratory hours, 1.5 semester hours

TE624
Technique Procedures II: Intermediate Full Spine and Upper Extremity Adjusting
Principles of patient management and common clinical conditions of the head, neck, thoracic and upper extremity regions are presented. Evidence-based diagnostic and treatment protocols are stressed along with conservative and proper referral and co-management. Prerequisites: TE613, DX611, DX612, TE522L, DX611L, DX612L
2 lecture hours, 2 semester hours

TE624L
Technique Procedures II: Intermediate Full Spine and Upper Extremity Adjusting Laboratory
The laboratory portion is a review and practice of new and previous techniques taught with an emphasis on skill refinement. Intermediate level spinal techniques and upper extremity techniques are presented and practiced. Prerequisite: TE613L, TE522L
4 laboratory hours, 2 semester hours

TE625
Technique Procedures III: Soft Tissue
Students are introduced to the concepts of soft tissue diagnostic procedures and treatment procedures. These include the etiology, pathophysiology, diagnosis and treatment of soft tissue dysfunction and trauma, differential diagnosis and case management of soft tissue lesions are presented. Prerequisites: TE511, 511L, TE522, 522L, TE613, AN512, AN526, NS612
2 lecture hours, 2 semester hours

TE625L
Technique Procedures III: Soft Tissue Laboratory
The laboratory portion covers the diagnosis and treatment of muscle hypertonic states. Prerequisites: TE613L, TE522L
2 laboratory hours, 1 semester hour

TE716
Technique Procedures IV: Intermediate Full Spine and Lower Extremity Technique
Clinical biomechanics of the lumbopelvic region and lower extremities are reviewed. Evidence-based differential diagnosis and case management of lumbopelvic and lower extremity clinical conditions common to chiropractic practice are presented and discussed. Prerequisites: TE624, TE624L
2 lecture hours, 2 semester hours

TE716L
Technique Procedures IV: Intermediate Full Spine and Lower Extremity Technique Laboratory
Intermediate level full spine and lower extremity assessment and manipulative procedures are presented and practiced. Students continue to review and practice previous technique procedures. Prerequisite: TE624L
4 laboratory hours, 2 semester hours

TE717L
Technique Procedures V: Soft Tissue Laboratory
This course will begin by reviewing soft tissue techniques taught in TE625/TE625L. Students then refine their palpatory and therapeutic soft tissue manual treatment skills. Prerequisite: TE625L
2 laboratory hours, 1 semester hour

TE728
Technique Procedures VI: Advanced Chiropractic Technique I
Advanced patient assessment procedures and application of technique procedures to different patient populations are presented and discussed. Upper cervical toggle recoil, instrument adjusting and temporomandibular joint, symphysis pubis, coccyx and rib techniques are introduced. Chiropractic management of extremity conditions is presented and discussed. Prerequisite TE716
2 lecture hours, 2 semester hours

TE728L
Technique Procedures VI: Advanced Chiropractic Technique I Laboratory
Previous patient assessment and technique procedures for the spine and extremities are demonstrated and practiced. Advanced spinal and extremity techniques are introduced and practiced. Upper cervical toggle recoil, pelvic blocking, instrument adjusting, cervical and lumbar mobilization techniques, TMJ, symphysis pubis, coccyx and rib techniques are introduced and practiced. Selected soft tissue techniques are reviewed and practiced. Prerequisite TE716L
4 laboratory hours, 2 semester hours

TE819
Technique Procedures VII: Advanced Chiropractic Technique II
This course is the combined lecture and laboratory review of all techniques taught at UBCC. This course also serves as a critique course for other techniques utilized in practice. Case management utilizing various chiropractic technique approaches are discussed and critically evaluated. Prerequisite: all courses Semester I-VI
1.5 lecture hours, 3 laboratory hours, 3 semester hours
Clinical Services

CS823
Clinical Services III
Interns continue to administer care to patients under the supervision and approval of licensed faculty. Interns are monitored as to their progress towards completing the qualitative and quantitative requirements as set forth by the UBCC Health Center. Assessment of an intern’s clinical competency is performed by faculty. Prerequisite: All course semesters I-VII.
25 clinic hours, 12.5 semester hours

CS824
Clinical Services IV
Interns continue to administer care to patients under supervision of faculty. Progress is monitored by faculty. This clinical experience is presented during the summer for six weeks. Prerequisite: All courses Semesters I-VI
25 clinic hours, 4 semester hours

Diagnosis

DX611
Diagnostic Skills I: Physical Examination
This course is designed as an introduction to the skills required to examine, diagnose and differentially diagnose the skin, eyes, ears, nose, sinuses, mouth, throat and thyroid as well as the cardiovascular, respiratory, gastrointestinal and genitourinary systems. In addition, selected topics regarding the diagnosis of the musculoskeletal system will also be covered. The student will review basic anatomy and physiology as well as anatomical structures as it relates to physical examination procedures being taught and specific organ systems being examined. The student will also learn the selection of appropriate examination and diagnostic procedures which correspond to the patient’s history and complaint. They will be introduced to the skills as they relate to history taking as well as guidelines for appropriate record keeping and progress notes. The successful student will learn how to select and use their diagnostic equipment and procedures for carrying out these examinations. Integration of these skills into the comprehensive management of the patient will be emphasized which will allow the student to properly develop the clinical decision-making skills necessary to demonstrate minimum clinical competency. Prerequisites: AN511, AN513, AN525
3 laboratory hours, 1.5 semester hours

DX612/613L
Diagnostic Skills II: Orthopedics and Neurology
This lecture and laboratory course emphasizes the use of evidenced-based orthopedic and neurological evaluation procedures. Students are introduced to an organized clinical thought process that prepares them to perform appropriate evaluation procedures of patients presenting with neuromusculoskeletal conditions. The entire SOAP process is taught in order to enable the student to expedite the examination process, reveal subjective and objective findings, create an accurate diagnosis and generate comprehensive record keeping. Prerequisites: AN526, TE522, PP524
2 lecture hours, 2 semester hours, 4 laboratory hours, 2 semester hours

DX623
Diagnostic Skills III: Orthopedic and Neurology
The lecture portion of this course covers common diseases and conditions of the neurological system.
2 lecture hours, 2 semester hours

Chiropractic

Clinical Nutrition

CN621
Clinical Nutrition I: Pathology and Assessment
This course introduces the student to diet, basic nutrition and vitamins and their clinical applications. There is an emphasis on the clinical aspects of the diet and the diseases associated with the typical American diet. Additionally, the biochemistry of carbohydrates, fats and proteins is reviewed, focusing on the use of fats, amino acids and vitamins to treat various diseases and pathological states. Prerequisites: PH612, BC612, PA611.
1 lecture hour, 1 semester hour

CN712
Clinical Nutrition II: Treatment and Management
This course is a continuation of CN621. There is a comprehensive review of minerals and their clinical application, as well as the clinical uses of fiber. The pathophysiology of obesity, Alzheimer’s disease, atherosclerosis, diabetes mellitus, osteoarthritis and detoxification are discussed in length, as well as treatment protocols for each condition using nutritional supplements, herbs, diet and homeopathic medicines. Prerequisite: CN621
2 lecture hours, 2 semester hours

Clinical Services

CS721
Clinical Services I
Students under the supervision of licensed faculty begin to administer care to patients at the UBCC Health Center. Students are introduced to the procedures and practices utilized by the health center through lectures and practical demonstrations. Students refine their skills in history taking, physical examination, radiology, technique, case management and clinical decision-making. Prerequisites: all courses in semesters I-V.
2 lecture hours, 4 clinic hours, 4 semester hours

CS812
Clinical Services II
Under supervision of licensed faculty, interns administer care to patients. All patient diagnoses and management plans are reviewed and approved by a clinic faculty member prior to the initiation of patient care. Students are assessed via evaluation by faculty. Prerequisite: All course semesters I-VI
25 clinic hours, 12.5 semester hours

DX611L
Diagnostic Skills I: Physical Examination: Laboratory
This practical laboratory course is designed as an introduction to the psychomotor skills required to examine, diagnose and differentially diagnose the skin, eyes, ears, nose, sinuses, mouth, throat, thyroid, cardiovascular, respiratory, gastrointestinal and genitourinary systems. The student will review basic anatomy and physiology as well as anatomical structures as it relates to physical examination procedures being taught and specific organ systems being examined. The students will expand upon their knowledge and skills as it relates to history taking. The students will also learn the selection of appropriate examination and diagnostic procedures, which correspond to the patient’s history and complaint as well as recognize the importance of the review of systems and the development of a problem list. The successful student will learn how to select and use their diagnostic equipment and specific procedures for carrying out these examinations. Integration of these skills into the comprehensive management of the patient will be emphasized which will allow the student to properly develop the clinical decision-making skills necessary to demonstrate minimum clinical competency. Prerequisites: AN511, AN513, AN525
3 laboratory hours, 1.5 semester hours

DX612/613L
Diagnostic Skills II: Orthopedics and Neurology
This lecture and laboratory course emphasizes the use of evidenced-based orthopedic and neurological evaluation procedures. Students are introduced to an organized clinical thought process that prepares them to perform appropriate evaluation procedures of patients presenting with neuromusculoskeletal conditions. The entire SOAP process is taught in order to enable the student to expedite the examination process, reveal subjective and objective findings, create an accurate diagnosis and generate comprehensive record keeping. Prerequisites: AN526, TE522, PP524
2 lecture hours, 2 semester hours, 4 laboratory hours, 2 semester hours

DX623
Diagnostic Skills III: Orthopedic and Neurology
The lecture portion of this course covers common diseases and conditions of the neurological system.
2 lecture hours, 2 semester hours
Chiropractic

DX623L
Diagnostic Skills III: Orthopedic and Neurology Laboratory
The laboratory portion presents cases that challenge the student to consider the evaluation and management process of specific neurological conditions. Practical application of neurological and orthopedic testing prepares the student to organize their critical skills. Students, through a problem-based format, develop the clinical reasoning skills to differentiate conditions affecting the neuromusculoskeletal system.
4 laboratory hours, 2 semester hours

DX634
Laboratory Diagnosis
This course introduces the student to the appropriate ordering and interpretation of laboratory tests. Prerequisites: DX613, PH612, PA611
3 lecture hours, 3 semester hours

DX725
Special Populations
This course introduces the student to the health care needs of the developing child and mother from conception to birth to childhood and adolescence. Complications of pregnancy, delivery, post partum care and the chiropractic management of the obstetrical patient will be discussed. The examination and conditions of the pediatric patient as well as the management of the pediatric patient is presented. Also covered is the examination of the geriatric patient, common findings of the geriatric exam and management of selected neuromusculoskeletal and non-neuromusculoskeletal conditions. Prerequisites: all courses in semesters I-V.
3 lecture hours, 3 semester hours

Differential Diagnosis

DD711L
Differential Diagnosis I: Internal Disorders Laboratory
The laboratory reviews examination procedures related to these areas and presents case studies to assist students in developing clinical reasoning skills. Prerequisites: All courses - Semesters I-IV

DD711
Differential Diagnosis I: Internal Disorders
This course presents the diagnosis and differential diagnosis of diseases and conditions affecting these systems is covered. Presentations include lecture, laboratory and case studies. Prerequisites: BC511, AN511
5 lecture hours, 5 semester hours

DD722
Differential Diagnosis II: Neuromusculoskeletal
This course is a presentation of the diseases and conditions affecting the neuromusculoskeletal system. Disorders affecting the spine, extremities and central and peripheral nervous system are reviewed. Neurological and orthopedic testing are covered as they relate to the differential diagnosis of these systems. Functioning of the human locomotor system and how other systems can affect this is stressed. Prerequisites: All courses, Semesters I-V
4 lecture hours, 4 semester hours

Emergency Procedures

ER 711
Emergency Procedures
Training in first aid principles is given in lectures and demonstrations dealing with the care of emergencies and accidental injuries. Treatment of wounds, fractures, poisoning, lacerations, shock, hemorrhages, heat exhaustion, drowning and burns are taught. Students are trained and receive certification in the administration of CPR.
1 lecture hour, 2 laboratory hours, 2 semester hours

Microbiology and Public Health

MB521
Clinical Microbiology I: Introduction to Infectious Diseases
This course introduces the student to the basic concepts of microbiology with emphasis on the structure, growth, metabolism and genetics of bacteria. Host-parasite relationships of representative bacterial, fungal, viral and protozoan pathogens are examined. A survey of microbial diseases includes modes of transmission, symptoms, diagnosis, physical and chemical methods of disinfection, sterilization and treatment. Presentations include lecture, laboratory and case studies. Prerequisites: BC511, AN511
2 lecture hours, 2 semester hours

MB612
Clinical Microbiology II: Infectious Diseases
This course is a continuation of MB521. Common infectious diseases are presented from a microbiological perspective. Prerequisite: MB521
2 lecture hours, 2 semester hours

MB623
Public Health I: Introduction to Public Health and Epidemiology
This course covers the current environmental and public health concerns and issues. The course integrates health with diet, air and water pollutants, nose and substance abuse, compares community hygiene and industrial hygiene, defines epidemiology and recognition of major communicable and non-communicable disease. Prerequisite: MB612.
2 lecture hours, 2 semester hours

MB724
Public Health II: Community Health and Wellness
This course teaches students about wellness and health promotion consistent with Healthy People 2020 from the US government. Students will learn health problem methods to use in practice that stress patient self care behaviors that can impact on mortality due to preventable causes, especially: cardiovascular disease, stroke, cancer and diabetes. These behaviors include diet, exercise, and smoking cessation, moderation of alcohol intake and reduction of drug usage. Prerequisite: MB623
2 lecture hours, 2 semester hours

Neuroscience

NS521
Neuroscience I
This course is an overview of the general anatomy of the central nervous system. The gross anatomical structures of the brain and central nervous system are presented. Basic neurophysiology and neural cellular anatomy are discussed. The structures of the sensory, motor and special sense systems and pathways are presented. Reading and case examples are used to emphasize the neuroanatomical correlation to selected clinical scenarios. Prerequisites: AN511, AN512, AN513, AN514, AN525
3 lecture hours, 3 semester hours
Chiropractic

N5612
Neuroscience II
This course is a continuation of N5521 and will begin to emphasize the neuroscience of clinical case-based problems. The sensory and motor systems are examined in detail. An emphasis is placed on the correlation of anatomical structure to physiological function and to contrast this to clinical problems. Prerequisites: N5521, PP524, PH521, AN525
3 lecture hours, 3 semester hours

Pathology

PA611
Fundamentals of Pathology
This course is a study of the pathophysiological process and how this process alters the gross, microscopic and clinical manifestations of disease. The basic pathological process of inflammation, repair, degeneration, necrosis, immunology and neoplasia is presented. This course is also an introduction to disease of the lymphatic, bone marrow and neuromusculoskeletal system. Laboratory includes the study of gross and microscopic changes as well as clinical presentation of various diseases and functional disturbances. Prerequisites: All anatomy courses, PH521
2 lecture hours, 1 laboratory hour, 2.5 semester hours

PA622
Systems of Pathology
This course is a continuance of the study of the pathological processes of various diseases. This course emphasizes the pathological basis of systemic diseases of the cardiovascular, respiratory, gastrointestinal, urogenital, endocrine, hepatobiliary, renal and pancreatic systems. The gross microscopic and clinical manifestations of various disease processes are presented. Prerequisites: PA611, Corequisites PH612.
4 lecture hours, 1 laboratory hour, 4.5 semester hours

Physiological Therapeutics

PT711/PT711L
Physiological Therapeutics I: Modalities
This course is an introduction to the physics and clinical use of heat, cold, high volt galvanism, interferential current, low volt galvanism, ultrasound, electrical muscle stimulation, diathermy and paraffin. This student is instructed on the development of a clinical management plan utilizing adjunctive therapies. In lab, students are introduced to the use and application of modalities.
1 lecture hour, 1 semester hour/2 laboratory hours, 1 semester hour

PT722
Physiological Therapeutics II: Rehabilitation
This course covers the concepts of rehabilitation as used in the UBCC Health Center and in private practice. The course covers the rehabilitative management of injuries and clinical conditions of the spine and extremities common to the practice of chiropractic.
2 lecture hours, 2 semester hours

PT722L
Physiological Therapeutics II: Rehabilitation Laboratory
The laboratory course introduces rehabilitative treatment methods including stretching, balance training, therapeutic and spinal stabilization exercise. Prerequisite: PT711
2 laboratory hours, 1 semester hour

Principles and Practice

PPS11
Principles and Practice I: History and Philosophy
This course is the study of drugs and chemicals and how they interact with the living organism. Pharmacology is a study of the sites, absorption and metabolism of common drugs. Toxicology studies the adverse reactions of drugs and poisons. The therapeutic use and toxic side effects of various drugs, chemicals, nutritional supplements and other substances are studied. Prerequisites: PH612, PA622, N5612, BC612
2 lecture hours, 2 semester hours

PPS12
Principles and Practice II: Introduction to Evidence-Based Practice
Students will learn the steps involved in Evidence-Based Chiropractic practice. Creating focused clinical questions, efficiently finding, and then assessing evidence for relevance and validity, applying it ethically (alongside clinical wisdom and patient preferences) to a clinical question, then reflecting upon your mastery of the process. This course will build the foundation for an ongoing commitment to inquiry which will support your future clinical decisions and patient care.
2 lecture hours, 2 semester hours

Physiology

PH521
Organ System Microscopic Anatomy and Physiology I
This class will focus on understanding the microscopic anatomy and physiology of the organs of the immune and endocrine systems. Major emphasis will be placed on the role of non-specific and specific defense mechanisms in health maintenance and provide an introduction into immune system disruption as it relates to hypersensitivity and autoimmunity. The endocrine system will be studied in its primary role in cellular communication and maintenance of homeostasis. Special emphasis will be placed on the interaction and communication between the nervous and endocrine systems. Prerequisites: AN511, BC511
2 lecture hours, 2 semester hours

PH612
Organ System Microscopic Anatomy and Physiology II
The microscopic anatomy and physiology of the cardiovascular, respiratory, urinary, digestive and reproductive systems will be studied in this class. An emphasis will be placed on the relationship of tissue organization and function of the organ systems. Laboratories in this class will utilize case studies to emphasize how an understanding of normal physiologic mechanisms is crucial to understanding pathophysiology. Prerequisites: AN511, AN513, BC511, PH521
4 lecture hours, 2 laboratory hours, 5 semester hours

PH713
Toxicology and Pharmacology
This course is a study of drugs and chemicals and how they interact with the living organism. Pharmacology is a study of the sites, absorption and metabolism of common drugs. Toxicology studies the adverse reactions of drugs and poisons. The therapeutic use and toxic side effects of various drugs, chemicals, nutritional supplements and other substances are studied. Prerequisites: PH612, PA622, N5612, BC612
2 lecture hours, 2 semester hours

PPS23
Principles and Practice III: Contemporary Chiropractic Studies
Historical and contemporary principles of the chiropractic profession are introduced.
and discussed. Components of the subluxation complex are presented, critically analyzed and incorporated into the science, art and philosophy of contemporary chiropractic practice. Current events regarding chiropractic and health care are presented and discussed. Prerequisite: PP511
2 lecture hours, 2 semester hours

PP624
Principles and Practice IV: Evidence-Based Practice
In this course, students will expand their knowledge of evidence-based practice. The course emphasizes asking clinical questions, searching for the scientific literature to answer those questions and critically appraising that research. Having found valid research to answer the clinical questions, students will learn how to use that information in clinical practice. Prerequisite: PP512
2 lecture hours, 2 semester hours

PP715
Principles and Practice V: Ethics
This is a risk management course that stresses the importance of ethical and legal business management procedures. Students learn risk management, jurisprudence, ethics and the informed consent process. Successful completion will prepare the student to practice as an ethical health care provider.
1 lecture hour, 1 credit hour

Psychology

PS711
Clinical Psychology
This course is designed to familiarize the student with current psychological theory and practice. The student is instructed in behavioral assessment and the recognition of psychological disorders. Interviewing and counseling techniques are presented as well as the criteria for appropriate referral of patients to providers of psychological services.
2 lecture hours, 2 semester hours

Radiology

DI621
Diagnostic Imaging I: Normal Anatomy
This course introduces students to normal spinal anatomy including the skull and pelvis. In addition, the students will learn about some abnormal conditions such as scoliosis and spondylolisthesis. Concepts, as they relate to imaging formation, file interpretation and report writing are introduced.
2 lecture hours, 2 laboratory hours, 3 semester hours

DI612
Diagnostic Imaging II: Normal Anatomy
This course is a continuation of DI521. Students continue to develop their skills of radiographic interpretation as they relate to normal anatomical structures of the various parts of the body. Emphasis is placed on the radiography of normal anatomical structures of the extremities and chest. Prerequisite: DI521
1 lecture hour, 2 laboratory hours, 2 semester hours

DI623
Diagnostic Imaging III: Bone Pathology
This course introduces students to the clinical and radiographic manifestations affecting osseous structures due to neoplasia, such as tumor-like conditions, infection and normal variants. Students are introduced to special imaging as it relates to further evaluation of these conditions. Prerequisite: DI612
2 lecture hours, 2 laboratory hours, 3 semester hours

DI714
Diagnostic Imaging IV: Arthritis and Trauma
This course further develops the students’ skills in the clinical and radiographic manifestation of osseous structures. Emphasis in this course is placed on the interpretation and recognition of disorders due to inflammatory and non-inflammatory arthritis and trauma. Special imaging as they relate to further evaluation of these conditions is presented. Prerequisite: DI623.
2 lecture hours, 2 laboratory hours, 3 semester hours

DI725
Diagnostic Imaging V: Chest and Abdomen
This course covers the interpretation of normal and abnormal clinical and radiographic manifestations of the internal organs. The chest, heart and abdomen are studied on plain film as well as special examination procedures. Prerequisite: All previous DI courses.
1 lecture hour, 2 laboratory hours, 2 semester hours

DI726
Diagnostic Imaging VI: Positioning and Physics
This course covers the mechanics of x-ray production, film processing, x-ray factors and radiation safety and protection for doctor and patient. Also covered is the placement and positioning of patients for the taking of x-ray studies. Students are introduced to the policies and procedures utilized by the UBCC Health Center.
2 lecture hours, 2 laboratory hours, 3 semester hours

DI827
Diagnostic Imaging VII: X-Ray Review
This course discussed the radiographic presentation of osseous pathologies that clinicians may see in field practice. Review of previous and introduction of new conditions is the goal. A more in-depth study of advanced imaging (with focus on MRI) of the areas often clinically discussed is presented. Prerequisites: All courses: Semesters I-VI
2 laboratory hours, 1 semester hour

Research

RS711
Evidence Based Practice I
This online learning course will utilize previously taught material and evidence-based practice methods in the creation of a comprehensive case report on a fictitious patient. An emphasis is placed on chiropractic principles and techniques as patient management strategies are created. Prerequisite: PP512, PP624
1 lecture hours, 1 semester hour

RS722
Evidence Based Practice II
This online learning course will utilize previously taught material and evidence-based practice methods in the creation of a comprehensive case report on a fictitious patient. An emphasis is placed on chiropractic principles and techniques as patient management strategies are created. Prerequisite: RS711
1 lecture hours, 1 semester hour

RS813
Evidence Based Practice III
Interns compare different interventions based on patients seen by the intern, as approved by their clinician. Interns perform a literature search and report the clinical questions, search terms used; data based searched, papers found and their quality. The intern determines whether a given intervention has quality evidence supporting its use. Interns submit a report summarizing findings and discuss the
case with other interns. Clinicians query interns not only regarding the findings, but also how the investigation provides practical application to the patient’s care and management plan. Prerequisites: All Courses, Semesters I-VI, Corequisite: CS812

1 semester hour

RS824
Evidence Based Practice IV
Interns compare different interventions based on patients seen by the intern, as approved by their clinician. Interns perform a literature search and report the clinical questions, search terms used; data based searched, papers found and their quality. The intern determines whether a given intervention has quality evidence supporting its use. Interns submit a report summarizing findings and discuss the case with other interns. Clinicians query interns not only regarding the findings, but also how the investigation provides practical application to the patient’s care and management plan. Prerequisite: All courses Semesters I-VII, Corequisite: CS823

1.5 semester hour

Computer Engineering

Computer Engineering 410
Introduction to Computer Architecture
Instruction set; data path and controller design for computers. Design and analysis of a RISC processor including integer and floating point pipeline design. Cache and virtual memory design, interrupts and DMA. Pre-requisite: Computer Engineering 312 or equivalent background.

3 lecture hours, 3 semester hours

Computer Engineering 415
Advanced Digital Systems
The objective of this graduate level course is to introduce the modern design methodologies for digital logic and automatic synthesis of digital systems. Students are provided with access to the CAD tools to use hardware description language to model, analyze and design various digital circuits/systems. It is expected that students will acquire a clear understanding of the main techniques, design strategies and the optimizations that are involved in modern digital circuit modeling, design and synthesis. The course projects will include the design and optimization of advanced critical digital systems used in bio-related applications.

3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 446 (CPEG 446/ElEG 446)
MEMS (Micro-Electro-Mechanical Systems)
Basic micro fabrication techniques, MEMS materials and their properties, MEMS device design and simulation, MEMS packaging and assembly, signal testing and MEMS reliability analysis. MEMS industrial applications in various areas will also be discussed. Students use ANSYS FEM software to design and simulate their behavior.

COMPUTER ENGINEERING 458 (CPEG 458/ElEG 458)
Analog VLSI
Modeling, design and analysis of analog VLSI circuits. CMOS processing and layout, current mirrors, Opamp, comparators, S/H voltage references, switched-capacitor circuits, data converters, filters and PLLs. Students design analog VLSI layouts, extract the netlists and simulate the circuit behavior. Transistor sizing will also be discussed. EDA tools PSPICE, Mentor Graphics are used.

COMPUTER ENGINEERING 460
Introduction to Robotics
Basic Robotics, including: position and velocity sensing, actuators, control theory, robot coordinate systems, robot kinematics, differential motions, path control, dynamics, and force control. Robot sensing, simulation of manipulators, automation, and robot programming languages are also investigated. Prerequisites: Computer Science 102, Electrical Engineering 360, Math 214 or 314 or permission of instructor.

3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 472
Computer Networks
Introduction to fundamental concepts in the design and implementation of computer communication networks, their protocols, and applications. Topics to be covered include: overview of network architectures, applications (HTTP, FTP), network programming interfaces (e.g., sockets), transport (TCP, UDP), flow control, congestion control, IP, routing, IPv6, multicast, data link protocols, error detection/correction, multiple access, LAN, Ethernet, wireless networks, and network security. Prerequisite: Computer Engineering 471 or permission from instructor.

3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 473
Local Area Networks
Examination of wired and wireless Local and Metropolitan Area Network technologies, protocols, and the methods used for implementing LAN and MAN based enterprise intranets. The IEEE 802 media access control (MAC) protocols are examined. The 802.2 logical link control, 802.3-Ethernet, 802.3 token bus, and the 802.5 token ring protocols are analyzed, and the construction of LAN-based enterprise intranets is examined through a detailed analysis of bridging, routing, and switching techniques. High-speed LAN technologies are discussed through an examination of FDDI, Fast Ethernet, 100VG AnyLAN, ATM LAN and fibre Channel protocols along with the standards for Gigabit and 10 Gigabit Ethernet. The new and emerging wireless LAN and MAN standards are also examined. The 802.11 (WiFi) wireless LAN and 802.15 (Bluetooth) wireless PAN standards are discussed. Prerequisite: Computer Engineering 471.

3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 481
Mobile Communications
This course covers the basic technologies in the field of wireless and mobile communications. The following topics are covered in the course: wireless transmission, media access control, satellite systems, broadcast systems, wireless LANs, wireless ATM, network layer protocols, transport protocols and support for mobility. Pre-requisites: Computer Engineering 471 or Computer Engineering 472 or permission of instructor.

3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 482
Network Administration

3 lecture hours, 3 semester hours

COMPUTER ENGINEERING 489
Software Engineering
Structural development methodology for large software systems. Planning requirements, design, test, and validation. Advanced topics in software development. Prerequisite: Computer Science 102 and senior status.

3 lecture hours, 3 semester hours
Computer Engineering • Computer Science

COMPUTER ENGINEERING 500
Graduate Co-op/Internship in Computer Engineering
By arrangement.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 510
Introduction to Computer Architecture
Instruction set; data path and controller design for computers. Design and analysis of a RISC processor including integer and floating point pipeline design. Cache and virtual memory design, interrupts and DMA. Prerequisite: Computer Engineering 312 or equivalent background.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 540
Image Processing
This is a project-oriented course. Students will learn and implement FFT with applications, image enhancement, image restoration, image compression, and image tomography. Projects will be conducted on workstations. Prerequisite: Electrical Engineering 443.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 548 (CPEG 548/LEG 548)
Low Power VLSI Circuit Design
With the rapid development of mobile computing, low power VLSI design has become a very important issue in the VLSI industry. A variety of low-power design methods are employed to reduce power dissipation of VLSI chips. This course is designed to cover low-power design methodologies at various design levels (from system level to transistor level). The basic low-power design strategies will be introduced in the class. Students will use the learned knowledge to design low-power VLSI circuits. Upon completion of this course, students will be able to analyze the power consumption of VLSI circuits, and design low-power VLSI circuits using various strategies at different design levels. The major target is to design VLSI chips used for battery-powered systems and high-performance circuits not exceeding power limits.
3 semester hours

COMPUTER ENGINEERING 550
Advanced VLSI Design
Implementation of custom VLSI designs, digital and analog simulation, fault tolerant design, design for testability. A major project will include the implementation of a digital integrated circuit. Prerequisites: Computer Engineering 448D.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 457
Electronic Design Using Programmable Analog Arrays
Use of design methodologies to implement analog circuits using programmable analog arrays. Introduction to design tools for circuit implementation. Laboratory experience includes design of analog filters, photoplethysmography, a non-invasive method of measuring blood pulsations, temperature measurements with PWM fan control, motor control using PID controllers, among others. Design tools include MatLab and design tools from Anadigm, Inc. (schematic capture and simulation).
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 561
Network Security
Conventional encryption and message confidentiality, public-key cryptography and message authentication. Authentication applications, electronic mail security, IP security, web security, firewalls, security in mobile network and other security systems. Prerequisites: Computer Engineering 471 or 473.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 570
Advanced Robotics
Advanced robotics and automation topics and techniques, including: active robotic sensing, intelligent and integrated manufacturing systems, robotic inspection, observation under uncertainty, multisensor feedback control of manipulators and mobile robots, advanced simulation and monitoring of robotic systems, high level modeling and control, and other topics. Prerequisites: Computer Science 460, Computer Engineering 460 or permission of instructor.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 584
Machine Perception
An introduction to sensing and machine vision. Vision algorithms that are usable in practical applications, sensing mechanisms and various types of sensed data representation, sense date processing and interpretation for different applications. Prerequisites: Computer Science 400, Computer Engineering 312 and Electrical Engineering 443.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 585
Computer Vision
A project-oriented course designed to familiarize the student with the computer image display, processing, and various limitations. The processing includes edge detection, Hough transform, thinning algorithms, moment invariant methods, relaxation algorithms, among others. Prerequisite: Computer Science 400, Computer Engineering 312, Electrical Engineering 443.
3 lecture hours; 3 semester hours

COMPUTER ENGINEERING 597 A
Master’s Project
Lecture hours and topics to be arranged with Department Chair.
1 semester hour

COMPUTER ENGINEERING 597 B
Master’s Project
Lecture hours and topics to be arranged with Department Chair.
2 semester hours

COMPUTER ENGINEERING 597 C
Master’s Project (completion)
Lecture hours and topics to be arranged with Department Chair.
1 semester hour

COMPUTER ENGINEERING 598
Thesis in Computer Engineering
Lecture hours, semester hours and topics to be arranged with Department Chair.
3-6 semester hours

COMPUTER ENGINEERING 599
Independent Study in Computer Engineering
Independent study of advanced topics in Computer Engineering and submission of project report as required. Problem assignment to be arranged with and approved by the Department Chair.
3 semester hours

Computer Science

COMPUTER SCIENCE 400
OOP and Design Patterns
This course introduces the modern object-oriented programming philosophy using C++ to the beginning graduate students. The emphasis is on developing the programming thought process in terms of objects and their interactions to each other. Concepts covered include data hiding, code reuse through inheritance, polymorphism, templates, exception handling, developing appropriate class hierarchy and code maintenance for large software projects. Prerequisites: Computer Science 102 or equivalent background.
3 lecture hours; 3 semester hours
Introduction to Robotics

Basic robotics including: position and velocity sensing, actuators, control theory, robot coordinate systems, robot kinematics, differential motions, path control, dynamics and force control. Robot sensing, simulation of manipulators, automation and robot programming, languages are also investigated. Prerequisite: Computer Science 102, Math 214 or 314, or permission of instructor. 3 lecture hours; 3 semester hours

Advanced Object-Oriented Programming with JAVA

Covered topics include advanced features of Java, such as Database inter-connectivity (JDBC) with Servlets and JSP, remote method interface (RMI), distributed applications objects using CORBA and JNDI, Java Beans, introspection and reflection, Enterprise Java applications with EJB, interfacing Java to C++ with JNI, and additional advanced topics. A focus on developing components and packages. A major project is developed. Prerequisite: Computer Science 410. 3 lecture hours; 3 semester hours

Computer Engineering 312, Knowledge of C/C++. 3 lecture hours; 3 semester hours

Object oriented programming, using Java, packages, interfaces, multi-threading, classes, inheritance, exceptions, interfaces, native methods, applets. Prerequisite: Computer Science 400. 3 lecture hours; 3 semester hours

Operating Systems

An advanced implementation oriented course in structure and design of operating systems. Scheduling and time management; processes and operating systems primitives; Deadlock handling techniques in operating systems; Space management and external device management. Prerequisite: Computer Science 102, Computer Engineering 312, Knowledge of C/C++. 3 lecture hours; 3 semester hours

Computer Science 520

Theory of Computation

Finite automata and Pushdown automata; Register machines; Recursive functions and sets; Languages, regular expressions; Context-free languages; Regular and context-free grammars; Pumping lemmas. Turing machines, Church-Turing thesis. Post-correspondence problem; Computability and complexity. Prerequisite: Computer Science 227 and knowledge of computer programming. 3 lecture hours; 3 semester hours

Theory of Artificial Intelligence

Foundations of the theory of Artificial Intelligence. Game playing, pattern recognition, description of cognitive processes, heuristic decision procedures, general problem solvers. Learning and robotics. Discussion of the relationship with human thought process. Extensive Lisp programming. Pre-requisite: Computer Science 102 or permission of instructor. 3 lecture hours; 3 semester hours

Automata Theory

Theory of automata and learning machines. Finite-state sequential machines and functions. Transition preserving functions, Generators and minimal generating sets. Input semi-group, Isomorphisms and Auto-morphisms. Prerequisite: Computer Science 227. 3 lecture hours; 3 semester hours

Software Design Patterns

This course introduces the modern object-oriented programming philosophy using C++ to the beginning graduate students. The emphasis is on developing the programming thought process in terms of objects and their interactions to each other. Concepts covered include data hiding, code reuse through inheritance, polymorphism, templates, exception handling, developing appropriate class hierarchy and code maintenance for large software projects. Prerequisite: Computer Science 102 or equivalent background. 3 lecture hours; 3 semester hours

Analysis of Algorithms

A course in advanced data structures and high-level algorithms. Varied uses of recursion. Graph representations and algorithms including traversals, path finding, closure, and spanning trees. Sorting files. Weighted and balanced trees; Hashing and collision handling. Complexity and analysis of algorithms. Prerequisite: Computer Science 102 or equivalent. 3 lecture hours; 3 semester hours

Component Based Software Design

Modern component based software design approaches using both the Component Object Model (COM) as well as the CORBA technologies. In-depth look at the infrastructure of COM components presenting of concepts of class factories, interfaces (standard and custom), inproc and local server components, IDL, type
Computer Science

libraries, proxy/stubs and marshalling, automation and I Dispatch interface, structured storage and ActiveX controls. The distributed form of COM referred to as DCOM and its newest form is known as COM+, which integrates the transaction, and queuing capabilities are examined. A comparison of the CORBA technology is made by explaining its architecture and remoting capabilities. Prerequisite: Computer Science 440. Prerequisite by topic: 1. Good background in C++ programming. 2. Some knowledge of Windows Programming.

3 lecture hours, 3 semester hours

COMPUTER SCIENCE 550 Multimedia Database Systems

The issues in multimedia (audio, images and video), multimedia compression, multimedia operating systems, multimedia communications, multimedia indexing, querying and retrieving, and web database systems, which have been enormously developed recently, and are playing important roles in the areas of business, entertainment, medicine and education. The goal of this course is to give in-depth understandings to media themselves with emphases on other issues related to DBMS, operating systems and communications. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 551 Advanced Database

Advanced study of Relational databases including indexing structure, query optimization, rule and cost-based optimization, transactions and concurrency, recovery techniques, security, distributed database, data mining and other emerging database technologies. Prerequisite: Computer Science 450 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 555 Web-Based Application Development

Introduction to fundamental issues in designing a web-based application. Review of the web technologies such as HTML, VBScript, JavaScript, DHTML, Java, XML and server-side technologies using Active Server Pages (ASP), CGI and Java Server Pages (JSP). Design issues include the creation of tiered and scalable applications by the use of COM+ components involving Microsoft Transaction Server and the Java approach of Enterprise Java Beans. Different projects are assigned to create dynamic, database-driven E-Commerce solutions involving, order tracking systems, inventory management, advertising management, creating score reports, personalizing the shopping experience and secure credit card transactions. Wireless E-Commerce applications and developing business-to-business application using XML, SOAP and Biztalk Servers. Prerequisite: Computer Science 400. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 560 Performance Evaluation and Analysis

This course covers the basic theory and practice of computer systems performance evaluation. The course focuses on three major aspects of performance analysis, measurement, simulation and analytical modeling using queuing theory. The topics will include measurement techniques, monitor tools, simulation models, stochastic processes, queuing theory and analytical modeling techniques. Prerequisite: Background in computer architecture and probability and consent of the instructor. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 561 Network Security


COMPUTER SCIENCE 566 Advanced Robotics

Advanced robotics and automation topics and techniques, including: active robotic sensing, intelligent and integrated manufacturing systems, robotic inspection, observation under uncertainty, multisensor feedback control of manipulators and mobile robots, advanced simulation and monitoring of robotic systems, high level modeling and control, and other topics. Prerequisites: Introduction to Robotics (Computer Science 460 or Computer Engineering 460). 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 570 Introduction to Neural Networks

Introduction to neural computing, and fuzzy logic. Neural network models including feed forward, multilayered networks, back-propagation, fuzzy associative memories, self-organizing maps and adaptive resonance. Applications. Projects to implement networks designed for specific applications. Prerequisite: Proficiency in C or C++, calculus and matrix methods. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 584 Machine Perception

An introduction to sensing and machine vision. Vision algorithms that are usable in practical applications, sensing mechanisms and various types of sensed data representation, sense data processing and interpretation for different applications. Prerequisite: Computer Science 400, Computer Engineering 312. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 590 Parallel and Distributed Processing

Models of parallel computation including distributed, multiprocessor, multicomputer. Parallel programming constructs. The mutual exclusion problem, synchronization and communication methods. Multi-computer topologies and topologies and topological embedding. Classes of parallel algorithms and design approaches. Performance analysis of parallel computation, including detailed and high level. A major project is required. Prerequisite: Computer Science 400. 3 lecture hours, 3 semester hours

COMPUTER SCIENCE 597 A Master’s Project

Lecture hours and topics to be arranged with Department Chair. 1 credit hour

COMPUTER SCIENCE 597 B Master’s Project

Lecture hours and topics to be arranged with Department Chair. 2 credit hours

COMPUTER SCIENCE 597 C Master’s Project (completion)

Lecture hours and topics to be arranged with Department Chair. 1 credit hour

COMPUTER SCIENCE 598 Thesis in Computer Science

Lecture hours, semester hours and topics to be arranged with Department Chair. 3-6 credit hours

COMPUTER SCIENCE 599 Independent Study in Computer Science

Independent study of advanced topics in Computer Science and submission of project report as required. Problem assignment to be
Computer Science and Engineering • Counseling

arranged with and approved by the Department Chair.
3 credit hours

Computer Science & Engineering (Ph.D.)

These courses are open for students enrolled in the Ph.D. degree in Computer Science and Engineering.

Computer Science & Engineering 690
Independent Study
Course taken up by a student with a faculty member on a special topic that may not be broad enough to be offered as a regular course.
3 lecture hours, 3 semester hours

Computer Science & Engineering 692
Special Topics in Computer Science
Course offered to allow special topics courses in the general area of Computer Science that do not fit into any of the available areas of specialization.
3 lecture hours, 3 semester hours

Computer Science & Engineering 693
Special Topics in Computer Engineering
Course offered to allow special topics courses in the general area of Computer Engineering that do not fit into any of the available areas of specialization.
3 lecture hours, 3 semester hours

Computer Science & Engineering 694
Written Comprehensive Examinations
Students taking comprehensive examinations are required to register for CSE 694.
0 lecture hours, 0 semester hours

Computer Science & Engineering 698
Teaching Requirement
Ph.D. students assigned teaching courses to fulfill the teaching practicum of the Ph.D. in Computer Science and Engineering are required to register CSE 698.
0 lecture hours, 3 semester hours

Computer Science & Engineering 699
Seminar (Oral Exam)
Seminar is a zero credit course. It involves attending the regular departmental seminars and presenting one's work in one of the seminars.
0 lecture hours, 0 semester hours

Computer Science & Engineering 710
Ph.D. Dissertation
The student is expected to work on the accepted topic and come up with original results. S/he has to report the results in the form of a Ph.D. dissertation. The student is encouraged to document the intermediate results in the form of technical reports. S/he is also encouraged to publish these results as they are discovered, in the international professional literature, i.e., refereed conference proceedings and journals. Proof of good work is the acceptance of the results by reputed journals. Intermediate results can also be discussed in departmental seminars. The completed dissertation must be distributed to the dissertation committee members at least two weeks before the dissertation defense. The committee will read it and certify that the dissertation is a work of substantial merit and that it can be defended. It is the responsibility of the student that the final draft of the dissertation addresses all legitimate concerns of the committee members. Varies from 1-12 semester hours

Counseling

Counseling 502
Orientation to Mental Health Counseling
This course will provide an orientation to the program and the counseling profession with a primary focus on the culmination to professional licensure. This includes an overview of the profession, touching on its history, counselor roles, and relationships with other human service providers. The course will discuss the relevant content for comprehensive examinations and the requirements for professional credentialing such as NBCC certification and licensure as a Professional Counselor. Additionally, the course will provide an introduction to the University library along with resources for on-going professional development and self-care. Offered in the fall and spring semesters
1 semester hour

Counseling 503
Orientation in Student Affairs
The course provides an overview of Master of Science in Counseling, specifically the College Student Personnel Concentration. The course reviews competencies and expectations of the profession, professional research and writing, as well as the principles of sound practice in Student Affairs. Offered annually
3 semester hours

Counseling 505
Helping Relationships
This course provides a definitive view of counseling including the characteristics of the counselor and the elements of the counseling process. Through experiential exercises and videotaped simulated counseling the student will attain skills such as attending, empathic listening, assessing and focusing on important client concerns, structuring the process, and facilitating change. Offered in the fall and spring semesters
3-4 semester hours

Counseling 512
Counseling Theories
This course surveys the major theories and perspectives of counseling including the Psychoanalytic, Behavioral, Humanistic-Existential, Cognitive, Constructivist-Post Modern, and Systems approaches along with an integrated, eclectic or confluent perspective. Students gain an understanding of the role of theory, the philosophical basis of the theories, the divergent methods utilized, and the utility of each perspective. Offered in the fall and spring semesters
3 semester hours

Counseling 515
Clinical Skills Mental Health Counseling
The focus of this course is the skills necessary to work in a psychotherapeutic venue including treatment planning, report writing and diagnosis. The course covers description and diagnosis of the mental disorders as prescribed by the Diagnostic and Statistical Manual. Offered annually
3 semester hours

Counseling 520
Introduction to Student Affairs
This course provides an overview of the purpose and functions of student affairs, including the role of the Student Affairs Professional on a college campus. Through the study of theoretical perspectives and empirical data, you learn to describe different elements and types of educational environments and understand their effect on different types of students. Students will understand and apply theories/environment interaction in a collegiate setting. Offered annually
3 semester hours

Equivalent to COUN-681
COUNSELING 527
Student Affairs Administration
This course is an introduction to the administration of higher education institutions in the United States. Course material includes an overview of history, purposes, formal structure, governance, finances, and administrative behavior. Offered annually
3 semester hours

COUNSELING 530
Family Counseling
This course examines the history of family counseling, the stages of family development, philosophical basis and major theoretical approaches to family counseling. Ethical issues and guidelines specific to family counseling in alignment with Ethical Standards of the American Counseling Association and the American Association for Marriage and Family Therapy will be discussed. Offered annually
3 semester hours

COUNSELING 532
History and Systems of Human Services
This course is an overview of human service history and current issues, social policy analysis. Skills related to advocacy and the change agent, and principles of case management. Offered bi-annually
3 semester hours

COUNSELING 535
Principles of Applied Research
This course provides a grounding in the methodology of social science research as it pertains to the human service field. It addresses the following four content areas: 1) The nature of social science research; 2) Critical analysis of social science research, 3) Simple descriptive and inferential statistics, and 4) Action research design. Offered annually
3 semester hours Equivalent to COUN-500.

COUNSELING 536
Assessment in Student Affairs
This course is designed to provide an introduction to assessment in student affairs and higher learning education. Students will explore a variety of assessment methods and techniques and apply their learning through case studies and/or real world assessment. Students will learn the purpose of, and interact with, University’s Institutional Review Board. Offered annually
3 semester hours

COUNSELING 540
Group Process: Appl/Theory
The course focuses on the dynamics of leadership and various membership roles. Alternative theoretical models of groups will be studied. An experiential group experience is required. Counseling 505 and 508 are prerequisites. COUN 541 is geared specifically to the needs of Human Resource professionals. Offered annually
4 semester hours Equivalent to COUN-521.

COUNSELING 545
Social and Cultural Foundation
This course examines how social and cultural factors impact on the individual and subsequently how the counselor attends to and addresses the different social forces and cultural differences in the counseling venue. Offered annually
3 semester hours Equivalent to COUN-516

COUNSELING 552
Human Development: A Lifespan
This course provides a survey of major theories and issues in the field of human development. Topics include the nature of human development; research methods in the field of human development; biological bases for human development; the social, emotional and cognitive changes that occur across the lifespan; and how human development affects, and is affected by, family life, peer relationships, schooling, gender, values, and culture. Offered annually
3 semester hours Equivalent to COUN-560

COUNSELING 555
Student Development Theory
This course is designed for graduate students in College Student Personnel. Course participants will conceptualize how college students grow and develop during the critical college years, become familiar with the major families of theories for understanding college student development and the concerns of students who are members of campus subculture, and be able to apply developmental theories in practical settings in higher education to assess problems encountered by college students and to design educational interventions. Offered annually
3 semester hours Equivalent to Coun621

COUNSELING 562
Today’s College Student
This course will examine the diverse demographics of students of American colleges and universities, including international college students and discuss management of this culture. Students will research the literature on how college impacts students who attend as well as current trends and topics in higher education. Offered annually
3 semester hours

COUNSELING 568
The Counselor as Professional
This course serves as an orientation to the helping profession by addressing issues that impact on the provision of services such as ethics, law, certification, and professional role expectations. Completion of this course must precede internship. Offered annually
3 semester hours Equivalent to COUN-510

COUNSELING 570
Strategies/Techniques of Counseling
Building on basic listening skills this course focuses on developing strategies and interventions that promote therapeutic movement for the client. Techniques of the various theoretical orientations will be presented and practiced. Simulated role plays and videotaped sessions provide active opportunities to develop the skills. This course has significant out of class expectations. Prerequisites include completion of at least 9 credits and Counseling 505 and 512. Offered annually
4 semester hours Equivalent to COUN-524.

COUNSELING 575
Practicum
This course provides students an opportunity for supervised work experiences in a supervised work setting. Students participate in an exploratory field experience in selected community, agency, collegiate, or corporate settings. Departmental permission is required. Specific coursework may also be required depending upon concentration or setting. Offered each semester
2 semester hours

COUNSELING 582
Appraisal Procedures for Counseling
In this course students become familiar with a variety of standardized assessment instruments, learn how to evaluate them, select several tests that are appropriate for use in an
area of professional responsibility related to a real or anticipated counseling situation, and interpret test results in a supervised setting. Prerequisites include Counseling 505 & 512. Offered annually

3 semester hours
Equivalent to COUN-525.

COUNSELING 585
Trauma & Crisis Intervention
This course serves as an introduction to the counselor of the implications of the psychological trauma. Prevalence and impact will be explored as well as various treatment approaches. Minimum prerequisites: Counseling 505 and Counseling 512. Practicum Level, Post-Graduate or current Employment in the counseling field preferred. Offered annually

3 Semester hours

COUNSELING 587
Psychopharmacology
This course is designed to give community counselors a working knowledge of current trends in Psychopharmacology for children and adults. The increased use of medications to treat mental health disorders in our society has led to a need for mental health workers to understand the types of medications currently used, the effects of specific treatments, and the overall impact on educational, social & personal development. Offered annually

3 semester hours
Equivalent to COUN-561.

COUNSELING 590
Master's Project
This course is designed to assist the student in development of a scholarly masters project, which is the final product required for completion of the Master's Degree in Counseling. Offered each semester

1-3 semester hours

COUNSELING 595
Addictions and Treatment
This course is designed to provide a practical experience for counselors learning to work with alcohol and other drug abusers and other addictions. Covered in the course will be a survey of the various psychoactive drugs and behavioral addictions along with diagnosis and treatment modalities in working with persons with addictions, and those affected by persons with addictions. Prerequisites include Counseling 505, 512 and 540. Offered annually

3 semester hours

COUNSELING 600
Cmhc Internship 1
The goal of the internship is to further develop and refine the skills established during practicum. You are eligible for the internship component of your program after completing the required coursework and approval from faculty. The internship is the heart of the master's degree training program in Counseling at the University of Bridgeport (UB). It provides a venue within which students receive the guidance necessary for development as an entry-level counselor. Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. Fee Assessed. Permission of Instructor/Internship Coordinator Required. Offered in the fall and spring semesters

1-3 semester hours

COUNSELING 601
Internship 1 College Stud Pers
The goal of the internship is to further develop and refine the skills established during practicum. You are eligible for the internship component of your program after completing the required coursework and approval from faculty. The internship is the heart of the master's degree training program in Counseling at the University of Bridgeport (UB). It provides a venue within which students receive the guidance necessary for development as an entry-level counselor. Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. Fee Assessed. Permission of Instructor/Internship Coordinator Required. Offered in the fall and spring semesters

1-3 semester hours

COUNSELING 602
Internship 1 – Human Services
The goal of the internship is to further develop and refine the skills established during practicum. You are eligible for the internship component of your program after completing the required coursework and approval from faculty. The internship is the heart of the master's degree training program in Counseling at the University of Bridgeport (UB). It provides a venue within which students receive the guidance necessary for development as an entry-level counselor. Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. Fee Assessed. Permission of Instructor/Internship Coordinator Required. Offered in the fall and spring semesters

1-3 semester hours

COUNSELING 605
Clinical Mental Health Counseling Internship 2
Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. This reflects on the second part of your internship experience and can only be taken after successful completion of Coun600. Offered in the fall and spring semesters

4 semester hours

COUNSELING 606
College Student Personnel- Internship 2
Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. This reflects on the second part of your internship experience and can only be taken after successful completion of Coun601. Offered in the fall and spring semesters

3 semester hours

COUNSELING 607
Human Services- Internship 2
Program faculties provide didactic and experiential training, which serves as the foundation for the development of skills necessary for independent work in clinical settings. This reflects on the second part of your internship experience and can only be taken after successful completion of Coun602. Offered in the fall and spring semesters

3 semester hours

COUNSELING 610
Career & Lifestyle Development
This course provides an introduction to a lifespan approach to career and lifestyle development. Theories, research, and counseling strategies related to career and lifestyle issues are explored. Labor resources and information, career assessment tools, computer assisted career guidance, life roles, cultural considerations, and placement procedures are reviewed as interrelated factors to the study of career development. Counseling 505 and 512 are prerequisites. Fee Assessed. Offered
Counseling • Dental Hygiene

COUNSELING 615
Ethical/Legal Issues Higher Ed (3.00 Cr.)
This course is designed to provide entry-level student affairs practitioners a basic understanding of the legal issues prevalent on college campuses. Students will study case law and apply their knowledge through case studies. Offered annually
3 semester hours

COUNSELING 620
Leadership in Contemporary Workforce
This course guides you to understand the leadership principles and practices of employee relations in today's workplace. The emphasis will be on understanding the interpersonal and leadership skills and practices needed to succeed in today's workplace, including the importance of workplace ethics, cultural diversity, managing today's work/life balance issues, and learning about the role communications plays in organizations, including the issues surrounding technology in the workplace. Offered bi-annually
3 semester hours

COUNSELING 622
Group Work Processes and Skills
A laboratory and seminar course in which students become actively involved in working with small groups. Emphasis in the supervised group and seminar sessions will be on the leader's role as a facilitator of individual growth within the group setting. Prerequisite: Counseling 505 & 512 or departmental permission. Offered bi-annually
3 semester hours

COUNSELING 625
Org & Admin Mental Health Systems
This course provides a comprehensive introduction to human service organizations through the perspective of managerial competencies necessary for success in the human services agencies, including human resources, supervision, managing finances, monitoring and evaluating programs and services, social advocacy and managing change. Prerequisites include Counseling 505, 512, and 540. Offered bi-annually
3 semester hours

COUNSELING 630
CSP CUMULATIVE EXAM
This is the culminating exam for students in the college student personnel concentration. Students will take this exam in their last semester of study. Students must pass the exam in order to graduate. See your advisor to register for the exam. Offered annually
1 semester hours

COUNSELING 682
Cognitive Behavioral Therapy
The course is designed to teach students the basics of how to conduct Cognitive Behavioral Therapy (CBT). Lectures will stress theory and case conceptualization. Exercises will address both theory and application. This course provides a more sophisticated, in-depth look at CBT as it pertains to cases. Students will read two texts and case and/or biographical material. They will also participate in in-class exercises that will include operationalizing the problem, case conceptualization, treatment planning, practicing specific techniques (in the roles of therapist and client), and considering special issues for certain populations. Offered annually
3 semester hours

Dental Hygiene

DENTAL HYGIENE 500
Leadership in Dental Hygiene
This course focuses on the theories, concepts, and principles of leadership skills related to personal behavior, communication, organizational and leadership styles. This course explores the opportunity to develop leadership roles appropriate to the dental hygiene profession.
3 lecture hours, 3 semester credits

DENTAL HYGIENE 501
Grant and Contract Writing
This course will provide the graduate students with an introduction to the process of grant application, award, post award management, types of grants and contracts, content and language of disbursements for funding, and requirements of various funding agencies. The steps to writing a grant proposal for healthcare funding from private, state, and federal funding sources will be covered.
3 lecture hours, 3 semester credits

DENTAL HYGIENE 502
Evidence Based Research
This course is designed to prepare the student to utilize research as the foundation for clinical decision making. The practical application of evidence-based decision making to the clinical management of individual patients is explored.
3 lecture hours, 3 semester credits

DENTAL HYGIENE 503
Clinical and Didactic Educational Concepts
This course will introduce the graduate student to a procedure for developing a competency-based curriculum. The student will learn the steps in developing a lecture, module of instruction, and a course. Cognitive, affective, and psychomotor learning theories are addressed along with clinical teaching methodologies.
3 lecture hours, 3 semester credits

DENTAL HYGIENE 504
Clinical/Laboratory Teaching
This course will provide students with the practical knowledge and skills to function as a competent didactic instructor. Cognitive skill development and analysis, remediation of performance concerns, evaluation, and faculty calibration are areas stressed.
1 lecture hour, 4 clinic/laboratory hours, 3 semester credits

DENTAL HYGIENE 505
Didactic Student Teaching
This course will provide students with the practical knowledge and skills to function as a competent didactic instructor. Cognitive skill development and analysis, remediation of performance concerns, evaluation, and faculty calibration are areas stressed.
1 lecture hour, 4 laboratory hours, 3 semester credits

DENTAL HYGIENE 507
Dental Health Services Administration/Management
This course is designed to familiarize the student with the administrative concepts necessary to effectively administer dental health facilities and departments. Emphasis is placed on leadership, decision making and problem solving skills. It examines political, social, and legal systems that affect dental hygiene administration and influence its role.
3 lecture hours, 3 semester credits

DENTAL HYGIENE 508
Curriculum Development and Management
This course provides the student with the study and development of models for dental hygiene curriculum design and implementation. The development and utilization of competencies and the evidence based instruction is emphasized.
3 lecture hours, 3 semester credits

DENTAL HYGIENE 509
Dental Public Health
This course is designed to prepare students
Dental Hygiene • Design Management

for leadership roles in dental public health settings. Administration, grant writing, consumer advocacy, epidemiology, biostatistics, the assessment, planning, implementation, and evaluation stages of programs and alternative dental hygiene care is emphasized.

DENTAL HYGIENE 510
Foundations of Healthcare Management
The focus of this course is the healthcare system in the U.S., specifically how its entities work, how they interrelate and how it differs from healthcare systems in other countries with more government controlled systems.

DENTAL HYGIENE 511
Epidemiology
This course will provide the graduate student with the skills necessary to study health states in populations and its applications in basic science, general clinical research, and public health. Students will critique the dental hygiene literature as it applies to the subject of epidemiology.

DENTAL HYGIENE 513
SeminAin Public Health issues
This course will explore current concepts and challenges facing dental healthcare delivery through the development of collaborations across healthcare disciplines, delivering culturally and linguistically competent healthcare, and evaluating current and proposed dental healthcare workforce models. Initiatives serving the purpose of guiding national health promotion and disease prevention to improve the dental health of the U.S. Population and informing the american public on health matters will be examined.

DENTAL HYGIENE 516
Concentrated Practicum
This course provides the Graduate student with the opportunity to take an active role in the development of a practical experience at a site relevant to their specialized area of concentration. The student identifies a site and mentor to supervise the practicum prior to the start of the course. The practicum faculty advisor works closely with the student throughout the course providing strategies to help the student achieve a successful outcome.

1 lecture hour; 6 laboratory/clinic hours; 3 semester credits

DENTAL HYGIENE 520
Master’s Thesis Preparation
Original research in a chosen topic relating to the graduate student’s area of specialization will be studied, conducted, written and presented. 1 lecture hour; 8 laboratory/clinic hours; 4 semester credits

DENTAL HYGIENE 521
Master’s Thesis Extension
1 credit

Design Management

DESIGN MANAGEMENT 400
Collaborative Design Studio I
Design Management is an inter-disciplinary field that combines various forms of design including graphic design and branding, interior design and architecture, industrial design, and fashion and textile design. Collaborative Design Studio I will begin to equip students with the skills they need to work with cross-functional teams. This is done through client-based design projects that originate from local Fortune 500 and other global organizations. Students will learn communication, team building, and leadership skills as they hone their design talents.

2 semester credits

DESIGN MANAGEMENT 401
Collaborative Design Studio II
Building on the foundation formed in Collaborative Design Studio I, students will again be grouped in inter-disciplinary teams to complete an innovative, client-based design project. The projects for this course will focus the students’ attention on the triple bottom line: profitability, sustainability, and responsibility.

2 semester credits

DESIGN MANAGEMENT 402
Collaborative Design Studio III
Collaborative Design Studio III will continue to equip students with the skills they need to work with cross-functional teams on real world, client-based assignments. Students will learn communication, team building, and leadership skills as they hone their design talents.

2 semester credits

DESIGN MANAGEMENT 403
Collaborative Design Studio IV
Collaborative Design Studio IV will continue to equip students with the skills they need to work with cross-functional teams on real world, client-based assignments. Leadership skills will be given extra attention during the second year’s teamwork.

2 semester credits

DESIGN MANAGEMENT 410
Design Management I
Design Management is a multifaceted, organic discipline whose exact definition can differ between organizations and Design Managers. In Design Management I, students will explore various definitions of Design Management with the goal of defining their own course of study. By reading and writing about relevant case studies, students will examine a wide variety of applications of design management. Students will be required to present their description of design management by the end of the term.

3 semester credits

DESIGN MANAGEMENT 411
Design Management II
As the student’s concept of design management deepens, they will begin to explore the implications that design management has on an organization. Design Management II will describe the six core principles of the program: Marketing, Leadership, Finance, Legal, Operations, and Strategy, as well as the triple bottom line: Profitability, Responsibility, and Sustainability. Students will learn the ripple effect their design decisions have on an organization as they broaden their understanding of the field of design management.

3 semester credits

DESIGN MANAGEMENT 510
Design Management III
Students will continue to further their understanding of design management. Through relevant case studies, text readings, and lectures, students will develop a plan for the application of design management principles within their organization. The final project for this class includes an action plan for an organization where design management principles will make a meaningful impact on their triple bottom line.

3 semester credits

DESIGN MANAGEMENT 511
Design Management/Thesis IV
Design Management/Thesis IV requires students to develop an idea that embraces and explores a particular aspect of design management. Students will work independently on a paper that broadens the design management field. This unique challenge demands that the students demonstrate an understanding of the six core principles of the program: Marketing, Leadership, Finance, Legal, Operations, and Strategy, while injecting their own
Interpretation of design management based on their experience, talent, and culture.
3 semester credits

Design Management 598
Internship/Co-op
Fairfield County and the surrounding tri-state area are rich in organizations in need of qualified design management interns. Through strategic partnerships and student initiative, internships will be established to give students first-hand experience as a design manager. Students will report on their experience and that report, coupled with his or her manager's evaluation, will form the basis for determining the student's grade. Internships are taken by domestic students; Co-ops are taken by international students.
1 semester credit

Design Management 599
Special Projects
Special projects and independent study give students the opportunity to explore specifics of design management as they relate to their own area of expertise. Students will be encouraged to seek out opportunities to gain practical experience in the design and design management fields. This course should include field, library, and institutional research on a specific aspect of design management. Student evaluation will be based on a report submitted by the student.
2 semester credits

Marketing 400
Marketing
This course explores the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual, organizational, and societal objectives. The underpinnings of marketing discipline will be taught through text, case studies, articles, and class discussion. Mastery of these principles will come through individual and group assignments to create marketing solutions for real-world products.
3 semester credits

Management 400
Leadership & Management
This course will introduce students to the primary tenets of leadership and management. Successful organizations foster innovation and efficiency. Students will evaluate the dynamics related to realizing organizational progress through the effective and efficient use of talent, structure, culture, methods, and technology. In addition to the required textbooks, students will research industry journals as a way to evaluate the application of leadership and management techniques in real settings across various industries.
3 semester credits

Accounting 400
Financial Accounting
This course will provide managers with the skills necessary to read, interpret, and apply information about an organization's financial position. Managerial accounting and finance concepts will precede financial statement analysis. Topics covered include: how accounting data is generated in business operations, how financial statements are created, management of finance to maximize return on investment, and stakeholder equity. Students will participate in case work applying the principles presented in class.
3 semester credits

Business Law 400
Legal Environment of Business & Ethics
This course focuses on how the legal environment of business impacts business decisions with broad ethical, international, and critical thinking examples throughout. Knowledge of the legal aspects of running a business will enable the student to conduct business within the legal framework and understand the ethical dimension of business decisions. Topics include: Introduction to Business Ethics and the Judicial and Legislative Process; Litigation, Alternative Dispute Resolution, and the Administrative Process; Business Crimes, Torts, and Contracts; The Constitution and Government Regulation of Business; Business Organizations; Employment and Labor Laws; Consumer Protection and Environmental Regulation; and International Law and Ethical Conflicts.
3 semester credits

Information Systems and Knowledge Management 400
Information Systems & Technology
Information technology has become a key component for accomplishing strategic and operational goals in organizations today. As such, organizations expect their new employees to have a basic understanding of information technologies. To accomplish organizational goals and advance one's career path, one needs to understand and apply information technologies effectively, efficiently, and creatively. The purpose of this course is to provide an introduction to information systems and technology and to familiarize students with the fundamental concepts and principles of information systems. The course is targeted for graduate students who have little or no background in information systems. Therefore, it focuses on breadth of coverage rather than depth in any specific area.
3 semester credits

Management 582
Small Business & Entrepreneurship
A comprehensive review of the marketing, operational, financial, product, service, and business strategy and plans that must be mastered and developed as foundation for start-up of a small business or entrepreneurial enterprise. In addition, growth of existing business through intrapreneurship is also covered. Students will develop a comprehensive business plan for a business of their choice which is acceptable to the professor.
3 semester credits

Design Management 580
New Product Commercialization
The objectives of this course are to understand and apply concepts and techniques of product commercialization. The course focuses on taking student-created product concepts and having student teams drive the concepts to become actual products. Product design, prototype creation, market analysis, and financial analysis all come together with the student team to create a viable product. If ideas are worthy, teams may work with the University's CTech IncUBator to actually commercialize their products. Students are strongly encouraged to find a sponsor to actually commercialize their product ideas.
3 semester credits

East Asian and Pacific Rim Studies
GLOP/EAST ASIAN AND PACIFIC RIM STUDIES 401/501
Graduate Seminar in Research Methods
This is an introductory course in qualitative and quantitative research methods. It is designed to introduce you to basic concepts and issues (statistical, analytical, and ethical) encountered in research investigation. We will discuss what research is, the tools of research, research design, and writing the research report. Included will be an introduction to a di-
East Asian and Pacific Rim Studies

GLDP/EASt ASiAn AnD PAcific RiM StuDieS 511
Issues in Economic Development
This course explores current issues in economic development including poverty alleviation, strategies to overcome poverty and underdevelopment including microfinance, the roles of multilateral financial institutions, and the Washington Consensus. The course will also explore the roles of regional arrangements and development institutions in attempts to overcome underdevelopment. The theoretical underpinning of the course lies in the many schools of thought that have produced explanations of the causes and consequences of development and underdevelopment. The course attempts to plot strategies to achieve goals of economic development.
3 semester hours

GLDP/EASt ASiAn AnD PAcific RiM StuDieS 522
Conflict Analysis and Resolution
This course examines theories about and sources of conflict (resource allocation and shortage; ideological, religious, and cultural disagreement; power distribution; perceptions of security; etc) to set the stage for conflict analysis and negotiation. In conflict analysis, the impact of cultural-linguistic systems on agreements and disagreements is examined. Culturally sensitive strategies of negotiation, conflict resolution, and mediation also are examined and practiced.
3 semester hours

East Asian and Pacific Rim Studies 530
Pacific Rim Culture and Development
Outcomes 1 (B) and 2 (I)
This course introduces students to the challenges of socioeconomic and political development in the Pacific Rim with its sharply differing approaches to development, due to factors such as traditions which have existed in some cases for millennia and are also influenced sharply by histories of Eastern and Western colonialism and cross-cultural differences. The course introduces students to the modern models of developments which have been employed by the United States, Australia, China, Singapore, Chile, Japan, Taiwan, and Korea and will consider the lessons learned from these processes. The course will also explore the major religious and cultural trends as well as some of the historical developments that have contributed to recent East Asian economic successes.
3 semester hours

East Asian and Pacific Rim Studies 542
Models of Good Governance in the Asia-Pacific
This course examines the philosophical and political underpinnings of good governance of the Asia-Pacific region. This course will take into account the two major reference points for political philosophy in the region- Western Political Philosophy and East Asian political philosophy with special attention being given to Confucianism. Students will also consider the role of Islam and its political implications with particular attention being paid to Indonesia, Malaysia and the Moros regions of the Philippines. The course will also note the unique process of transition from authoritarian to democratic rule in Japan, Korea, Taiwan, and in the Peoples Republic of China.
3 semester hours

East Asian and Pacific Rim Studies 543
Communication and National Development
This course focuses on the relationship between media and politics and media and governance. It will also examine the issues of freedom of speech and freedom of the press, media as mouthpiece or watchdog. The course will also study how media are used in governance, how public opinion is formed, shaped, and influenced, and how political and public agenda are set.
3 semester hours

East Asian and Pacific Rim Studies 551
Advanced Diplomacy
This course will build upon the skills and competencies that the student has acquired in foundational courses in the Global Development and Peace program including GLDP 522 International Conflict Negotiation as well as other foundational courses in the GLDP program in order to allow students to develop enhanced understanding and competency in the areas of diplomacy and negotiation. The course will explore the components of diplomacy, with a special focus on negotiation. It will also include settlement on issues to be negotiated, organization of negotiation agendas, the role of spokespersons, problem solving, public diplomacy; and the roles of Track I, Track One and a Half, Track II and Track III diplomacy in addressing issues.
3 semester hours
**Economics**

**ECONOMICS 400**

**Economics**

This is a course for managers in both micro and macro economics. Topics addressed will include the prevailing patterns of economic institutions, national income analysis, international trade, prices and production, economic development, market structure and consumer decision analysis, competition, monopoly and monetary policy issues. Prerequisites: Admission to graduate study.

*3 semester hours*

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**Education**

**Note:** Teacher Leadership courses are designated with the prefix of EDMM. Specific titles are listed with the programs of study in the chapter for graduate studies in the School of Education. Consult the division faculty for detailed course descriptions.

**EDUCATION 340 C, M**

**Directed Observation and Supervised Teaching in the Elementary or Middle School**

This is a full-time field experience in a selected elementary or middle school. This meets requirements of Connecticut’s TEAM program. Department permission is required.

*6 semester hours*

**EDUCATION 382**

**Directed Observation and Supervised Teaching in Secondary Schools**

This is a field experience in selected secondary schools. This meets requirements of Connecticut’s TEAM program. Departmental permission is required. Department permission is required.

*6 semester hours*

**EDUCATION 440**

**Methods and Materials in Teaching Language Arts**

This course focuses on the teaching and learning of the English language arts with an emphasis on instructional planning and assessment using current state and national standards. ED 440C concentrates on the language arts processes and practices implemented in the elementary-level curriculum, grades K-6.

*2 semester hours*

ED 440M concentrates on the language arts processes and practices for middle school settings, grades 4-8, with an emphasis on interdisciplinary connections.

*3 semester hours*

ED 440J concentrates on the issues and pedagogy of teaching the English language arts and literature in secondary-level settings, grades 7-12.

*3 semester hours*

**EDUCATION 441**

**Methods and Materials in Teaching Mathematics**

This course deals with methods of teaching mathematics. Materials are examined for their use in diagnosis, remediation and enrichment, as well as emphasizing planning and instruction using current state and national standards.

ED 441C concentrates on the scope and sequence, as well as appropriate activities, for the elementary level.

ED 441M concentrates on the appropriate practices for middle school, grades 4-8, with an emphasis upon interdisciplinary connections.

ED 441J concentrates on the content and methodology of mathematics for secondary students.

ED 441C — 2 semester hours

ED 442M, J — 3 semester hours

**EDUCATION 442**

**Methods and Materials in Teaching Social Studies**

This course assists students in developing competencies in unit planning, instructional strategies, and the utilization of diverse materials and technology for teaching the social studies. Students design courses of study that integrate state and national standards; contemporary thinking about the teaching of social studies is stressed.

ED 442C concentrates on the activities, planning, and materials for social studies in elementary classrooms.

ED 442M concentrates on the content, practices, and planning appropriate for the middle level, grades 4-8. Interdisciplinary possibilities are examined.

ED 442J concentrates upon appropriate content, planning, and practices for 7-12 classrooms.

ED 442C — 2 semester hours

ED 442M, J — 3 semester hours


Education

EDUCATION 443
Methods and Materials in Teaching Science
This course introduces teaching approaches, instructional materials, and contemporary thinking about science education, as well as emphasizing planning and instruction using current state and national standards. ED 443C concentrates upon the practices and materials of effective science for elementary level.

ED 443M concentrates upon the appropriate content and practices for the middle grades, 4-8. Interdisciplinary possibilities are examined.

ED 443J concentrates upon the appropriate content and practices for the secondary science curriculum.

ED 443C — 2 semester hours
ED 443M, J — 3 semester hours

EDUCATION 446
Methods and Materials in Teaching a World Language
This course familiarizes the student with the major purposes of the study of world language in the schools. It introduces the strategies and classroom activities for effective teaching. It examines appropriate materials for teaching world languages.

3 semester hours

EDUCATION 447
Methods and Materials of Teaching English as an Additional Language
This course explores the language needs of children who are learning English as an additional language. It reviews and explains effective methods and strategies for teaching such students. The most appropriate materials are identified and utilized.

3 semester hours

EDUCATION 450
Field Experience
This course is a structured observation in a private or public school. The goals of the course are to facilitate the candidate’s awareness of self, of school pupils, and of prospective teachers. The course is an elective for other majors. The number of semester hours taken should be determined with the student’s advisor. Two semesters of field experience are required a total of (6 credit hours); 3 credit hours each semester.

1-6 semester hours

EDUCATION 500
Research Techniques and Report Writing
This is an introduction to the research process, to the understanding of published research, and to the application of research findings to education. The course prepares the student to write formal papers and research reports.

3 semester hours

EDUCATION 503
Diverse Students: Differentiated Instruction
This course focuses on pedagogy based on the philosophy that each student is a unique learner and that instruction should be provided that meets the needs of diverse students. Methods for addressing the needs of students’ diverse strengths, background, experiences, gender, linguistic, and learning styles will be presented. It is recommended that the course will be taken after completion of EDU 564: Education of Students with Exceptionalities.

3 semester hours

EDUCATION 505
Intercultural Relations: Teaching and Learning in Multicultural Environments
This course presents an overview of theories about educational, social and cultural problems of minority culture students, about teacher perceptions and expectations, about parental involvement. The course also critically analyzes policies and practices of multicultural and bilingual education. The thrust of the course is to develop appropriate and non-biased methods of teaching all children.

3 semester hours

EDUCATION 509
Psychological Foundations in Education
This is concerned with the work of educators in general and teachers in particular. Topics include student characteristics (personality, growth, and development, adjustment, etc.) motivation, learning, measurement and evaluation, objectives, and teaching methods.

3 semester hours

EDUCATION 511
Statutory Requirements
This course addresses the topics required for Connecticut licensure in teaching, including topics in health and intergroup relations.

1 semester hour

EDUCATION 515
Clinical Experience—Internship Program
In the first semester interns will work under supervision in a learning environment, providing a variety of paraprofessional services to the schools. In the second semester the internship is designed to provide (1) a more in-depth perspective of teaching and learning through the development of a portfolio and (2) an opportunity to reflect on and document the impact of the internship experience.

6 semester hours

EDUCATION 536
Adolescent Literature
This surveys books and periodicals emphasizing criteria for selection and evaluation, procedures for establishing a program of literature in the schools, and opportunities to explore the interpretation of literature in the classroom through drama, storytelling, book reporting, and choral speaking. Education 536C is focused on children’s literature. Education 536J concentrates on adolescent literature. Education 536M concentrates on pre-adolescent literature.

EDUC 536C — 2 semester hours
EDUC 536M/J — 3 semester hours

EDUCATION 537
Middle Grades Interdisciplinary Teaching and Teams
This course focuses on the developmental levels of the middle school student, appropriate instructional climates for middle grade classrooms, and interdisciplinary planning across subjects in English, History/Social Studies, Math, and Science.

3 semester hours

EDUCATION 540
American Culture and Education
This course addresses cultural issues related to education. Topics include multicultural issues in America and the interpretation of demography in relation to schooling. The search for national identity and educational alternatives are explored.

3 semester hours

EDUCATION 541
Classroom Management in Teaching English as an Additional Language
This course focuses on classroom management as an effective tool for a positive learning environment. Planning, implementing, and maintaining management procedures are discussed.

2 semester hours

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and the interpretation of different types of tests. The construction of teacher-made tests and a variety of standardized, criterion-referenced programs, types of instruments for collecting include methods for evaluating instructional educational testing and measurement. Topics in this course give students an orientation to language systems.

EDUCATION 558
Theory and Methods of Teaching English as an Additional Language
This course addresses the foundations of second language learning theory, research, and discourse in educational settings. It also focuses on strategies for teaching dual language instruction with emphasis on a culturally responsive environment and on legal issues as they apply to schooling for English language learners.

3 semester hours

EDUCATION 543
Second Language Acquisition
This course provides an overview of the major theories of first and second language acquisition. It applies these theories to classroom pedagogy and examines the influences of parents, siblings, and peers, as well as aspects of formal and informal education. It also examines the influence of region, culture, class, and gender on language acquisition; legal and ethical issues relative to language competency are addressed.

3 semester hours

EDUCATION 546
Linguistics for Teachers
This course acquaints teachers with the major analytical frameworks in linguistics. It surveys the discipline of linguistics, the study of human languages, contrastive features, and language systems.

3 semester hours

EDUCATION 545
English Language and Literature for Teachers
The purpose of this course is to give prospective teachers of English as an additional Language (ESL) a rich knowledge of literature with potential classroom applications for multicultural settings. Selection and analysis of language processes and literature for elementary and secondary-level classrooms are included.

3 semester hours

EDUCATION 542
Theory and Methods of Teaching English as an Additional Language
This course addresses the foundations of second language learning theory, research, and discourse in educational settings. It also focuses on strategies for teaching dual language instruction with emphasis on a culturally responsive environment and on legal issues as they apply to schooling for English language learners.

3 semester hours

EDUCATION 560M
Human Growth and Development, Middle
This course provides an opportunity for the study of the subject matter of human development, with a concentration upon the uniqueness of the adolescent period. Theoretical models and methods of researching human growth and development including cognition, physical, social, emotional and moral development will be studied. Genetic and environmental influences of human development will be discussed. Implications for classroom instruction in the middle grades will be explored.

3 semester hours

EDUCATION 564
Education of the Exceptional Student
The focus of this course is placed upon the instructional methods and materials for exceptional students. General management techniques and administrative procedures are considered in light of the student's special needs in order to identify and work effectively with the major categories of exceptionality, including the learning disabled, the handicapped, and the gifted, etc. Requirements of the 94-142 law are examined.

3 semester hours

EDUCATION 565
Contemporary Problems in Education I
This is a study of foundations, issues and contemporary trends in education with their application to teaching in the schools. An effort will be made to encourage teachers to develop an understanding of their own philosophy of education and how it affects their teaching.

3 semester hours

EDUCATION 566
Contemporary Problems in Education II
This independent study fulfills the Final Degree Option for the Master's degree. Students pursue an individually planned project under advisement of a faculty member. Extensive reading supports the project. May be taken as an extension of ED 500 or ED 565.

3-6 semester hours

EDUCATION 571
Diagnosis and Intervention of Reading and Language Arts Difficulties
This course examines the range of problems that cause students difficulties in literacy processes. It examines assessment instruments and strategies for intervention and instruction in Reading and Language Arts.

3 semester hours

EDUCATION 572
Advanced Diagnosis of Reading and Language Arts Difficulties
This course is for students interested in working with learners experiencing profound difficulty in reading, writing, and other literacy processes. Students learn strategies for assessing students referred for specific literacy instruction. Both individual and group diagnostic assessments are used. Students learn how to interpret testing results and make recommendations for improvement. Prerequisite: EDUC 571

2 semester hours

EDUCATION 573
Early Literacy Instruction
This course concentrates on the theories, instructional applications, and materials for the teaching, learning, and assessment of literacy processes in early childhood and up to grade 2. Topics include emergent literacy, phonological awareness, and phonological knowledge and instruction.

2 semester hour

EDUCATION 574
Developmental Reading in the Elementary School
This course focuses on the teaching and learning of comprehension and composing processes and strategies for content area disciplines. Critical reading and study strategies for expository text materials are emphasized.

3 semester hours

EDUCATION 575
Reading and Writing in the Content Areas
This course focuses on the teaching and learning of comprehension and composing processes and strategies for content area disciplines. Critical reading and study strategies for expository text materials are emphasized.

3 semester hours

EDUCATION 575M
Diagnosis and Intervention of Reading and Language Arts Difficulties
This course examines the range of problems that cause students difficulties in literacy processes. It examines assessment instruments and strategies for intervention and instruction in Reading and Language Arts.

3 semester hours

EDUCATION 577M
Advanced Diagnosis of Reading and Language Arts Difficulties
This course is for students interested in working with learners experiencing profound difficulty in reading, writing, and other literacy processes. Students learn strategies for assessing students referred for specific literacy instruction. Both individual and group diagnostic assessments are used. Students learn how to interpret testing results and make recommendations for improvement. Prerequisite: EDUC 571

2 semester hours

EDUCATION 577
Reading and Writing in the Content Areas
This course focuses on the teaching and learning of comprehension and composing processes and strategies for content area disciplines. Critical reading and study strategies for expository text materials are emphasized.

3 semester hours
EDUCATION 567
Developmental Reading in Middle Grade Classrooms
This course focuses on the theories, instructional applications, and materials for the teaching, learning, and assessment of reading and related literacy processes in middle grade (4-8) classrooms.
1-3 semester hours

EDUCATION 590C
Special Problems in Elementary Education
This is intended for students interested in independent study or research of a selected topic or problem in consultation with a faculty member. By arrangement. Faculty permission required.
1-6 semester hours

EDUCATION 580J
Special Problems in Secondary Education
This is intended for students interested in independent study or research of a selected topic or problem in consultation with a faculty member. By arrangement. Faculty permission required.
1-6 semester hours

EDUCATION 580L
Special Problems in Behavioral Science Research and Computer Applications
This course is designed to enhance the efficiency and scope of one’s research through the development of specific competencies needed for computer processing. Students will be exposed to computer-assisted instruction (C.A.I) and computer managed instruction (C.M.I), and will develop projects that focus on computer applications. By arrangement. Lab fee required.
1-6 semester hours

EDUCATION 590
Computer Literacy
This is designed to provide the student with hands-on experience in the use and application. The student will have the opportunity to evaluate existing course work and its application as well as the writing of elementary programs in Logo and Basic. Lab fee required.
1-3 semester hours

EDUCATION 591
Software Evaluation
This is designed to have students develop software evaluation criteria for the purpose of evaluating published computer programs. The student will have an opportunity to review educational programs.
1-3 semester hours

EDUCATION 592
Technology Literacy for Educators
This course is an introductory to expose students to a variety of technologies used by and with persons with exceptionalities. Students will gain hands-on skills in designing technology-based instructional materials for students. A focus on Universal Design for Learning is a the core of this course with a goal of providing students with the ability to adapt technology, instruction, and assessment to meet a range of students needs.
3 semester hours

EDUCATION 595
Thesis Research — Masters Level
This is a culminating experience option at the Master’s level for Education students.
2-6 semester hours

EDUCATIONAL LEADERSHIP 601
Introduction to Education Leadership
This is an investigation of concepts, research findings, and practices focusing on the development and change of educational organizations in relation to relevant goals and objectives. Emphasis is placed on such areas as leadership theory and behavior, organizational climate, human relations and communications within the organization, and change strategies. Theoretical concepts of leadership are integrated along with practical applications.
3 semester hours

EDUCATIONAL LEADERSHIP 611A
Organization, Administration, and Supervision of Reading and Language Arts Programs
This course focuses on the role of the Reading and Language Arts Consultant as an educational leader in schools and school districts and focuses on issues of organization, administration, and supervision of reading and language arts programs. Note: Students enrolled in this course must also concurrently enroll in EDDL 611 Administration: Organizing, and Staffing Educational Institutions. While EDDL 611 focuses on the broader issues of educational leadership in schools, EDDL 611A specifically focuses on reading and language arts programs and personnel.
1 semester hour

EDUCATIONAL LEADERSHIP 613
Contemporary Issues in Education Leadership
This course will focus upon contemporary society and changing policy issues that confront managers and leaders of educational thought throughout the 21st Century. Seminal issues such as the impact of political forces upon federal, state, and local educational policies will be considered. Labor relations will be analyzed. Empowerment of teachers will be examined.
3 semester hours

EDUCATIONAL LEADERSHIP 613
Contemporary Issues in Education Leadership
This is an exploration of current topics and trends that impact education leadership. The course materials will explore current trends and topics utilizing journal articles, monographs, trade news outlets and social media.
3 semester hours

EDUCATIONAL LEADERSHIP 614
Leadership & Management of School Facilities
The course is designed to provide the prospective school leader with a comprehensive understanding of the various issues associated with managing and planning for school facilities that enhance teaching and learning.
3 semester hours

EDUCATIONAL LEADERSHIP 615
Research & Data Informed Supervision
This course is designed to increase students’ knowledge, understanding, and competencies required for reading and conducting educational research. The course achieves this by reviewing key concepts related to the research problem, research hypothesis, sampling, data collection techniques, data analysis, and research designs.
3 semester hours

EDUCATIONAL LEADERSHIP 618
Public School Finance
This is a study of educational fiscal control including: budget preparation and presentation, accounting procedures, tax structures, analyses of costs, comparative data and auditing. Includes federal, state and local phases of support of educational systems. Special emphasis is given to New York and Connecticut fiscal patterns.
3 semester hours

EDUCATIONAL LEADERSHIP 619
Public School Law
This is a study of the legal basis for public education in the United States; a study of state and federal statutes providing for education.
Educational Leadership

An examination is made of statutes, court decisions, and policies and practices arising out of these factors. The legal status of boards, teachers, administrators, pupils and parents is examined with special emphasis on New York and Connecticut.
3 semester hours

EDUCATIONAL LEADERSHIP 621
Evaluation of School Effectiveness
This course examines the various ways to evaluate the effectiveness of a school’s performance: student achievement, faculty performance, faculty morale, provision for diverse student needs and development of student emotional growth. The course examines how data can and should affect instructional issues.
3 semester hours

EDUCATIONAL LEADERSHIP 651
Curriculum Development and Implementation
This is a study and development of models for curriculum design and implementation at all levels of schooling. Emphasis is placed on current research and practice relevant to curriculum design and the planning and monitoring of curriculum plans in educational settings. Such topics as: curriculum assumptions, goals and objectives, knowledge and content, curriculum evaluation, implementation and staff development strategies are examined.
3 semester hours

EDUCATIONAL LEADERSHIP 652
Supervision: The Evaluation and Professional Development of Educators
This is a study of concepts and strategies focusing on the evaluation of teachers and other educators for purposes of performance improvement and quality assurance. Emphasis will be placed on research findings, current practices, and the achievement of competency related to classroom observation and evaluation, the planning and implementation of professional development, and the creation of organizational climate and human relationships conducive to effective evaluation and professional growth of educators.
3 semester hours

EDUCATIONAL LEADERSHIP 664
Supervision of Programs & Services for Students with Exceptionalities
This course is designed to prepare school administrators with the skills to supervise and implement appropriate services for students in need of response to intervention services and/or programs for students identified as in need of special education services. An emphasis is on service delivery models, due process procedures and supervision of specialists responsible for providing services to identified students.
3 semester hours

EDUCATIONAL LEADERSHIP 680A
Urban Leadership
This course is designed to introduce current research, challenges and successful practices of leading schools in urban settings.
3 semester hours

EDUCATIONAL LEADERSHIP 681A
Internship in Educational Management
A cooperatively guided administrative experience in a school system. Pre-requisite: Completion of major portion of the requirements for the Sixth Year Professional Diploma and permission of major advisor.
3 semester hours

EDUCATIONAL LEADERSHIP 682A
Special Topics in the Management of Educational Institutions
Special department offerings including workshops, conferences, institutes focusing on new developments in the field.
1-6 semester hours

EDUCATIONAL LEADERSHIP 683
Internship for the Reading and Language Arts Consultant
This course is a cooperatively guided administrative experience in the area of literacy education for those desiring to be certified as Reading and Language Arts Consultants. The internship includes a series of practicum experiences in a variety of school settings and includes research in the area of literacy education. Students gain practical field based experience through a range of tasks and situations characteristic of the position of the Reading and Language Arts Consultant in school settings.
6 semester hours

EDUCATIONAL LEADERSHIP 680D
Continuing Doctoral Seminar
The seminar meets periodically during the academic year and for two full weeks each summer, for three consecutive summers. It provides opportunities for students to work with scholars and leaders from a variety of disciplines to broaden perspectives on educational leadership and to develop an intellectual style for dealing with educational problems.
6 semester hours per year

EDUCATIONAL LEADERSHIP 801A
Educational Program Development
Emerging trends, concepts and practices in the planning, design, and implementation of education programs intended to meet the individual and group needs of learners in a changing society are reinvestigated. Emphasis is placed on the roles and responsibilities of leaders in such processes as school/community educational goal setting, needs analysis, systematic program design, supervision and staff development. Students will focus on the application of new knowledge to the investigation and solution of program development in the field.
6 semester hours

EDUCATIONAL LEADERSHIP 801B
CURRICULA THEORY AND PROGRAM DEVELOPMENT
This course provides an introduction to conceptions of curriculum and their effects on pedagogy from a historical perspective, with particular emphasis on discerning and interpreting how social, cultural, and political circumstances that shape educational practices. The course includes several projects focusing on the application of curriculum design principles and related instructional systems development. Emphasis is placed upon a historical overview of curricula theory and the current research and practice relevant to curriculum design, planning and monitoring in educational settings. Topics to be examined include the following: curriculum assumptions, understanding by design, concept-based curriculum and instruction, Curriculum for the 21st Century, alignment with the Common Core Instructional Standards, goals and objectives, knowledge and content standards, needs assessment and curriculum evaluation, the curriculum cycle, curriculum implementation strategies, and professional development strategies.
6 semester hours

EDUCATIONAL LEADERSHIP 804A
Constitutional, Legal, and Political Issues Confronting Educational Leaders
Legal questions relating to personnel, students, community, religion, finance, school property, teacher organizations, equality of opportunity and other legal and political issues with which the educational leader must be familiar in order to be effective in decision-making and organizational development are investigated. Emphasis is placed on “landmark” judicial decisions, recent statutory developments, consti-
tutional background. Students will read, analyze, and interpret significant Supreme Court decisions regarding educational matters as well as pertinent lower federal and state court decisions. The principal of "non-judicial" remedies will be explored and the appeals process will be examined in detail.

6 semester hours

EDUCATIONAL LEADERSHIP 804B Constitutional Law

Legal questions relating to personnel, students, community, religion, finance, school property, teacher organizations, equality of opportunity and other legal and political issues with which the educational leader must be familiar in order to be effective in decision-making and organizational development are investigated. Emphasis is placed on landmark judicial decisions, recent statutory developments, and constitutional background. Students will read, analyze, and interpret significant Supreme Court decisions regarding educational matters as well as pertinent lower federal and state court decisions. The principal of non-judicial remedies will be explored and the appeals process will be examined in detail.

6 semester hours

EDUCATIONAL LEADERSHIP 806 A & B Quantitative Analysis and Evaluation Strategies

This course considers current techniques for designing, implementing and analyzing projects in education and typical models for facilitating decision-making. The elements of personnel and program assessment within the contemporary educational system are included. Strategies focusing upon experiential learning and community contact are featured, and the student will be exposed to collection and analysis of real data and related computer simulation activities. Statistical and evaluative investigations are emphasized which are both fundamental and sufficiently sophisticated for advanced decision-making and leadership. This course is required.

6 semester hours

EDUCATIONAL LEADERSHIP 807A Management of Educational Institutions (K-12)

Participants in this course will investigate the planning and finance functions relative to the management of educational institutions. The planning component, the relationship between planning and institutional decision-making, and problems of implementing planning activities in educational contexts are considered. Finance is addressed through the treatment of budget preparation and presentation, accounting procedures, tax structures, and the role of local, state, and federal governments in support of educational system.

6 semester hours

EDUCATIONAL LEADERSHIP 807B Leadership Theories and Organization Management

This course investigates concepts, research findings, and practices focusing on the development and change of educational organizations in relation to relevant goals and objectives. Students investigate planning, financing and management of their own educational institution including budgets, accounting procedures, tax structures, and the role of local, state, and federal government. Emphasis is placed on leadership theories, organizational climate, human relations, and communication within organizations. The course covers a historical overview of organization and leadership theories and the culminating project is defining and defending a philosophy of leadership.

6 semester hours

EDUCATIONAL LEADERSHIP 808A Human Relations, Communication, and Decision Making

This course will provide educational leaders with the necessary skills and knowledge to maximize the human resources within an institution. It will develop in participant's increased personal awareness, greater sensitivity to others, effective communications and appropriate strategies for change and decision making.

6 semester hours

EDUCATIONAL LEADERSHIP 808B Program Evaluation and Human Relations

The structure of this seminar is three-fold. The impetuses, purposes, issues, and controversies surrounding human relations, assessment, and program evaluation with emphasis on organization development, teaching, and learning. Program evaluation techniques including multiple means of assessment will be discussed and considered. Concepts such as reliability, validity, credibility, and authenticity will be explored as well as summative and formative data collection and analysis strategies. The program evaluation approach will be applied to authentic experiences and scenarios that focus on assessing and evaluating institutions, programs, teaching, and learning. Research-based factors that are associated with effective schools and how to use various sources of data to evaluate and assess educational organizations and programs is also emphasized. The process of strategic planning as a vehicle to improve school effectiveness, the Connecticut/Standards for School Leaders, and Common Core Standards all provide a framework for understanding the role and responsibilities of school leaders for school improvement.

6 semester hours

EDUCATIONAL LEADERSHIP 811 Intro to Research

Introduction to Research is an overview course in research methodology and evaluation techniques relevant to the conduct of qualitative, quantitative, action, and mixed methods studies of leadership, curriculum, teaching, and learning. Fundamentals of, qualitative, quantitative, action and mixed methods research will be introduced from five prominent dimensions: leadership, curriculum, program evaluation, teaching, and assessment.

3 semester hours

EDUCATIONAL LEADERSHIP 812 Computer Application in Educational Leadership

This course covers creation of learning objects, including text, raster/vector graphics, animation, slideshows, conferencing components, and video for instructional Webs. Use of digital image capture equipment, including digital cameras, camcorders, and scanners. Also covers basic HTML, PDF and OCR. Final project will be integration of elements into an instructional Web.

6 semester hours

EDUCATIONAL LEADERSHIP 813 Quantitative Research

One of the greatest challenges faced by school leaders is harnessing the power of data to drive school improvement. To this end, in the present climate of rapidly emerging research findings and data-driven decision-making, today’s leaders must be able to perform, analyze, and critically interpret statistics. Hence, this course is designed to prepare doctoral students to perform dissertation research by giving them fundamental understanding of the quantitative research methodology. Overall, this course will provide students with: (a) the fundamental of descriptive and inferential statistics necessary to manipulate quantitative information,(b)the necessary frameworks to
Educational Leadership

describe, interpret, and critique the components of various quantitative research studies in education, and (c) the conceptual understanding of the experimental and non-experimental research methodologies.

3 semester hours

EDUCATIONAL LEADERSHIP 813

Literature Review

Literature review is designed to be taken in the summer of the first year after students have taken introductory research, quantitative research methods, and two six credit doctoral modules in the program. Conducting the literature review helps refine the student’s proposal and prepares for writing the Human Subject approval application.

3 semester hours

EDUCATIONAL LEADERSHIP 814

Qualitative Research

Qualitative research and evaluative Strategies introduces students to theoretical, paradigmatic and methodological research perspectives associated with the qualitative tradition. Case studies, grounded theory, ethnographic, and narrative approaches will be presented in this class paying particular attention to interpretive, critical, and participatory research techniques, methodologies and methods. Qualitative evaluation techniques used in program evaluations will be emphasized. EDUCATIONAL LEADERSHIP 814 introduces students to practical research techniques including the development of semi structured and open ended interview questions, how to conduct, record and analyze interviews, and the use of field notes when collecting observation data. Emphasis will be placed on understanding the ramifications of purposeful sampling, forms of credibility, the role of the researcher, and ethical dimensions associated with qualitative inquiry.

3 semester hours

EDUCATIONAL LEADERSHIP 815

Mixed Methods

Mixed method research introduces students to mixed-method research in the social sciences. Students should have some familiarity with research (quantitative and/or qualitative) and the epistemological and ontological underpinnings of the two methods as well as a basic understanding of their educational or social science research topic. This course completes the process of the proposal preparation expanding methodological and procedural techniques used in dissertation process. Specific objectives for this course include: (a) the history and language of mixed method research in education/social sciences; (b) summarization of current issues related to the paradigm wars and where mixed-methods research currently fits into education/social sciences; (c) advance understanding of research issued in educational/social sciences through discussions about paradigmatic compatibility, the current standing of mixed-methods in academic and political field, and the process and design of mixed-method studies; (d) proposal writing strategies including for mixed-methods research; (e) data sampling, collection and analysis strategies including for mixed method research; (f) reflections about the role of the researcher and their worldview in a mixed methods design. Although mixed-methods is an emerging dialog in education and social sciences, there are variety of sources available including keynote speeches, edited books, journal articles, editorials and seminal works from the leaders in the field cited in prominent mixed-method research publications. Supplemental articles and chapters will be provided depending on the students’ level of interest and needs. Students preparing their dissertation will have these available these resources when expanding their methodology and procedures sections of their study.

3 semester hours

EDUCATIONAL LEADERSHIP 816

Action Research Project

The Action Research seminar is the second year summer project designed to help students understand how to conduct, evaluate and disseminate research. This culminating research projects starts after students have completed introduction (EDUCATIONAL LEADERSHIP 811), quantitative (EDUCATIONAL LEADERSHIP 812) qualitative (EDUCATIONAL LEADERSHIP 814) and mixed method research (EDUCATIONAL LEADERSHIP 815) in the second year of program. Conducting a collaborative action research projects helps refine practical research skills, presentation techniques, and the ability to publish.

3 semester hours

(3 Credits Repeatable up to 2X)

Postsecondary Teaching Experience

EDUCATIONAL LEADERSHIP 817

Postsecondary Teaching

Post-secondary teaching provides students the opportunity to determine if working in higher education is preferred. This class is to be taken as a final class in the program course sequence. Repeatable up to 8 credits.

2 semester hours

(2 Credits Repeatable up to 4X)

EDUCATIONAL LEADERSHIP 845A

Dissertation Preparation Seminar

During the third year of the program, students participate in seminars which focus on the selection and development of a dissertation proposal. Students are ordinarily expected to complete the major portion of their work on the dissertation proposal prior to the conclusion of the formal part of the program. This course is required.

3 semester hours each term (Fall & Spring), 6 semester hours final summer

EDUCATIONAL LEADERSHIP 845B

Comprehensive Examination Preparation

During the third year of the program, students participate in this seminar in preparation for their 30 day, 3 question 45+ page comprehensive examination. Students should only take EDUCATIONAL LEADERSHIP 845 after they have completed all of their courses or with the prior approval of their Chair.

3 semester hours

EDUCATIONAL LEADERSHIP 850A

Dissertation Research and Advisement

Individual research and advisement relative to a student’s dissertation topic is the “sine qua non” of this course. Doctoral candidates are required to register for Education Management 850 continuously until their dissertations have received final approval. Prerequisite: Successful completion of Comprehensive Examination.

0 semester hours

EDUCATIONAL LEADERSHIP 850B

Continuous Dissertation

Individual research and advisement relative to a student’s dissertation topic is the sine qua non of this course. Doctoral candidates are required to register for Continuous Dissertation 850 every semester (Fall, Spring and Summer) until their dissertations have received final approval. Prerequisite: Successful completion of EDUCATIONAL LEADERSHIP 845 Dissertation Proposal and EDUCATIONAL LEADERSHIP 846 Comprehensive Examination.

0 semester hours

EDUCATIONAL LEADERSHIP 864

Special Education for Administrators

Supervision of Programs & Services for Students with Exceptionalities.
This course is designed to prepare school administrators with the skills to supervise and implement appropriate services for students in need of response to intervention services and/or programs for students identified as in need of special education services. An emphasis is on service delivery models, due process procedures and supervision of specialists responsible for providing services to identified students. 3 semester hours

EDUCATIONAL LEADERSHIP 881A
Administrative Internship + CAT Exam
A cooperatively guided administrative experience in a school system. Pre-requisite: Completion of major portion of the requirements for the Sixth Year Professional Diploma and permission of major advisor. 3 semester hours + CAT Exam

**Electrical Engineering**

**Electrical Engineering 404**
**Digital VLSI**
The objective of this course is to teach students the CMOS transistor design in VLSI circuits. (CMOS stands for complementary metal oxide semiconductor.) Supported by CAD tools, students will learn gate level design, IC design, fabrication, and layout of digital CMOS integrated circuits. With these skills, students will also be able to interact with integrated circuit fabrication process engineers after completing this course. 3 lecture hours; 3 semester hours

**Electrical Engineering 405**
**Statistics for Engineers**
From elements of probability, probability distributions and descriptive statistics to hypothesis testing, confidence intervals, linear regression and correlation, analysis of variance and engineering applications to include quality control. 3 lecture hours; 3 semester hours

**Electrical Engineering 410** (ELEG 410/BMEG 410)
**Bio Sensors**
This course will provide an introduction of biosensors, including their use in Pharmaceutical research, diagnostic testing, and policing the environment. Topics include the sensitivity, resolution, selectivity, dynamic range, and noise of biosensors. Other topics covered include transducer phenomenology, biosensor structure, and sensor performance. 3 lecture hours; 3 semester hours

**Electrical Engineering 411**
**Advanced PLC’s (Programmable Logic Controls)**
This course builds on PLC’s (ELEG 464) by using sensors (both thermal sensors, motion sensors, and camera input) to control the automation process; topics in servo motors, variable frequency drives, and HMI (human machine interaction) and touch screens are also introduced both in theory and in a lab setting. 3 lecture hours; 3 semester hours

**Electrical Engineering 413** (ELEG 413/CPCG 413)
**Bioinformatics**
The course covers algorithmic aspects of modern DNA and protein analysis. Topics include: (i) Reviews of DNA, RNA and Proteins, (ii) Genome rearrangements, (iii) Sequence Alignment and fast algorithms (BLAST), (iv) Genome expressions and DNA-microarray, (v) Phylogenetic trees, (vi) Protein docking and drug discovery, etc. 3 lecture hours; 3 semester hours

**Electrical Engineering 415**
**Fiber Optics**
Communication via light waves over fiber optics cables. Analysis of light emission and light detection. Absorption loss. Optical devices, connectors, splices and Local Area Networks (LANs). Pre-requisite: Physics 112 or equivalent. 3 lecture hours; 3 semester hours

**Electrical Engineering 416**
**Fiber Optics Lab**
Hands on experience with fiber optic hardware. Fiber properties, sources, detectors, splices, connectors. Design and test fiber optic transmission and receiver circuits for both analog and digital transmission. Pre-requisite: Electrical Engineering 415. 3 lecture hours; 3 semester hours

**Electrical Engineering 417**
**Modern Electronics**
See Electrical Engineering 348. 3 semester hours

**Electrical Engineering 428** (ELEG 428/BMEG 428)
**Wireless Communications**
Evolution of Mobile Radio Communications to cell phones and personal communications: 2nd and 3rd and 4th generation. Concepts include cell fundamentals, path loss, fading, ghosts, modulation techniques, equalization, speech coding and networks. 3 lecture hours; 3 semester hours

**Electrical Engineering 430**
**Satellite/Wireless communication Systems**
Detailing concepts and calculations from the entire field is enough to permit the kinds of analysis needed for major systems planning decisions. This course covers channel capacity, picture quality, signal to noise ratio, bit error rate, earth station antenna size and offers new materials on orbital mechanics and geometry. Pre-requisite: Electrical Engineering 441 or equivalent. 3 semester hours

**Electrical Engineering 431**
**Fields and Waves**
Solutions of static electric and magnetic fields are derived from Maxwell’s equations and Gauss’s law. Approximation, including multipole modelling, are used where exact solutions to theory do not exist. Also, the computer is used to solve these problems exactly without approximations. The course also introduces time varying fields and their link to the creation and propagation of radiation. 3 lecture hours; 3 semester hours

**Electrical Engineering 437**
**Microwaves**
Passive and Active elements for the generation, modulation, amplification and reception of microwaves. Radar and other microwaves systems. Pre-requisite: Field Theory. 3 lecture hours; 3 semester hours

**Electrical Engineering 440**
**Distribution Power System Design**
A comprehensive study of modeling of the distribution of power system components and planning, including load characteristics, application of power transformers, design of transmission lines, distribution sub-stations, primary systems and secondary systems, voltage drop and power loss calculations, application of capacitors, harmonics on distribution systems, voltage regulation, fault calculation and protection. 3 lecture hours; 3 semester hours

**Electrical Engineering 441**
**RF Communications**
Spectral analysis; modulation and demodulation system analysis, including AM, FM, pulse modulation and transmission of digital information. Signal design and system considerations. Pre-requisite: Electrical Engineering 234. 3 semester hours
Electrical Engineering

ELECTRICAL ENGINEERING 442
Digital Communications
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 444
Power Electronics
Application of power diodes and power transistors in rectifier arrangements and voltage regulators. Properties and application in power converters, inverters and motor drives. Pre-requisite: Electrical Engineering 348.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 445
DC/AC Motor Drives
Application to control speed and efficiency of motors using conventional thyristors control as well as modern variable frequency drives.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 446 (ELEG 446)
MEMS (Micro-Electro-Mechanical Systems)
Basic micro fabrication techniques, MEMS materials and their properties, MEMS device design and simulation, MEMS packaging and assembly, signal testing and MEMS reliability analysis. MEMS industrial applications in various areas will also be discussed. Students used ANSYS FEM software to design and simulate their behavior.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 447
Semiconductors
Crystal fabrication: MBE, MOCVD, LEC, Bridge Mann. Study material and electronic properties of single crystal Si, poly, a-Si, GaAs, GaN, SiC, Ge and II-VI compounds. Transport properties: Hall Peltier, resistivity, mobility. Analysis of capacitance and 1/V data for pn, pin, schottky and hetero-junction devices. Pre-requisite: Mathematics 110.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 448
Microelectronic Fabrication
This class covers basic microfabrication processes for semiconductor and VLSI fabrication, including photolithography, plasma and reactive ion etching, ion implantation, diffusion, oxidation, evaporation, vapor phase epitaxial growth, sputtering, and CVD. Advanced processing topics such as next generation lithography, MBE, and metal organic CVD are also introduced. The physics and chemistry of each process are introduced along with descriptions of the equipment used for the manufacture of integrated circuits. The integration of microfabrication process into CMOS, bipolar, and MEMS technologies are also discussed. The purpose of this course is to provide students with technical background and knowledge in silicon microelectronic fabrication process. Upon finishing this course, students will be familiar with the basic semiconductor and VLSI microfabrication processes.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 449
Introduction to Wireless Sensor Networks
In recent years, tiny computing devices equipped with low-power radios and sensors—made possible due to advances in microelectronics and radio technologies—have obliterated the wall between the physical world and the cyber world, spawning a virtually unlimited number of new applications—some of them beyond our wildest imaginations. Successful design of these massively distributed wireless sensor networks requires a synergistic combination of multiple aspects: from the physical layer to decision algorithms and more. This course will introduce the students to the application areas, various challenges commonly faced in this application, state-of-the-art solution techniques and fundamental theories that have emerged in the recent years.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 451
Introduction to Nanotechnology
Nanotechnology is the science and engineering involved in the design, synthesis, characterization and application of materials and devices with the size in nanometer (10^-9m) scale. As a newly emerged exciting high-technology, it has attracted intensive interest and heavy investments around the world. Nanotechnology is a general-purpose technology which will have significant impact on almost all industries and all areas of society. It can offer better built, longer lasting, cleaner, safer and smarter products for home, communications, medicine, transportation, agriculture and many other fields. This course will cover basic concepts in nanoscience and nanotechnology.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 452
Pattern Recognition
Operation and Design of systems that recognize patterns in data, based primarily on statistical and neural network approaches. Topics include Bayesian decision theory, parametric techniques, linear discriminant functions, and Neural Networks.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 454
Introduction to Audio Signal Processing
To introduce the fundamentals of speech processing and related applications. Course covers speech enhancement, speech coding, and speech recognition.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 458 (ELEG 458/CPEG 458)
Analog VLSI
Modeling, design and analysis of analog VLSI circuits. CMOS processing and layout, current mirrors, Opamp, comparators, S/H voltage references, switched-capacitor circuits, data converters, filters and PLLs. Students design analog VLSI layouts, extract the netlists and simulate the circuit behavior. Transistor sizing will also be discussed. EDA tools PSPICE, Mentor Graphics are used.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 459
Audio Processing Lab
Introduction to TMS320C55x Digital signal Processor, Audio Signal Processing, Basic Principles of Audio Coding, Speech Enhancement Techniques, Quantization of Audio signals, Calculating LPC coefficient using C55x Intrinsic, Matlab Implementations of noise Reduction (NR), Mixed C55x Assembly and Intrinsic Implementations of Voice Activity Detection (VAD), Combining AEC with NR, Voice over Internet Protocol Applications, Overview of Celp Vocoder.
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 460
Controls
3 lecture hours, 3 semester hours

ELECTRICAL ENGINEERING 461
Controls Lab
Laboratory study of feedback control systems.
with experiments analyzing different types of plants, transducers and control techniques; emphasis on real-time computer control. 

3 lecture hours; 3 semester hours

**Electrical Engineering 462**

**Advanced Controls**

This is a graduate level course and aims to introduce the analysis of nonlinear system. The course will cover: the state space description of nonlinear system; the phase portrait analysis of the second order system; stability analysis of the nonlinear system based on linearization method; the Lyapunov stability theory, etc.

3 lecture hours; 3 semester hours

**Electrical Engineering 463**

**Industrial Controls**

This course covers the basics of Industrial Controls, including but not limited to relay control, ladders, counters, timers, switches, and all electrical components necessary to program the control of a large machine.

3 lecture hours; 3 semester hours

**Electrical Engineering 464**

**PLC's (Programmable Logic Controls)**

This course will start with the basics of Boolean Algebra; it will cite the differences between PLC control and relay control and full automation of major machines and appliances; the differences in these controls will show how hard relay control is to implement and how flexible PLC control actually is; many different math functions will be analyzed and implemented in the theoretical construction of fully functioning PLC.

3 lecture hours; 3 semester hours

**Electrical Engineering 466**

**Adaptive Controls**

Adaptive Controls provides a graduate level introduction to the basic concepts, techniques, and the state-of-the-art of adaptive control systems. Upon completion of the course, students are expected to be able to conduct design, research, and development in the field. The course covers real time system identification algorithms, model reference adaptive control, pole assignment adaptive control, self-tuning and gain scheduling control systems, stochastic adaptive control, model-predictive control, and robustness issues of adaptive control systems. Prerequisites: Digital Control System (or equivalent)

3 lecture hours; 3 semester hours

**Electrical Engineering 479**

**Solar Energy and Solar Cells**

This course offers a review of renew-able energy (solar, winds, and tides) versus bio-energy (coal, oil, natural gas). The concept of light as electromagnetic radiation and pure energy as well as the concepts of converting sunlight into thermal energy will be discussed. Students will learn the semiconductor and electronic properties of solar cells, used to convert light into electricity. Secondary solar energy sources include solar Hydrogen and concentrator technology.

3 semester hours

**Electrical Engineering 481**

**Analog Electronics Lab**

With a set of 6 experiments and simulating them using P-Spice, the goal of this course is to teach the concepts from the theory of analog electronics. The user must have solid understanding of the basic electronics and circuit theory aka Network Analysis. Pre-requisite: Electrical Engineering 348, 234 or equivalents.

3 semester hours

**Electrical Engineering 482**

**Analog Integrated Circuit Design**

Do a complete analysis of the 741 op-amp, including bandwidth, gain analysis, slew rate, power efficiency and I/O impedances. Analyze ROM, Ram, TTL, ECL, CMOS and more modern logic structures including Fanout, noise margin, latching, contention, logic and delay response. Pre-requisite: Electrical Engineering 348.

3 semester hours

**Electrical Engineering 483 (ELEG 483/MEEG 483)**

**Digital Integrated Circuit Design**

Several integrated circuit architectures are analyzed at the transmitter level to find key parameters by hand analysis as well as computer simulation: rise time, fall time, noise margins, logic state, hysteresis/memory, fanout, and power dissipation. Analysis includes an analysis of the major logic families: TTL, CMOS, NMOS, ECL, PECL, differential logic.

3 lecture hours; 3 semester hours

**Electrical Engineering 490**

**Alternative Energy Technologies**

This is a graduate level course and aims to introduce the alternative energy technologies in photovoltaic cells (PV) and fuel cells. It will cover: the physics, energy conversion efficiency, and challenges in PV cells, the principles, the stack and system design in fuel cells.

3 lecture hours; 3 semester hours

**Electrical Engineering 500**

**Graduate Co-op/Internship in Electrical Engineering**

By arrangement.

1-3 semester hours

**Electrical Engineering 510**

**Medical Machines**

Electrical safety is studied by full analysis of grounding and modeling of the human body under various electric shock conditions. The ECG machine (for measuring heart performance) is analyzed as both an analog and a digital machine, with emphasis on cleaning up signal problems and extending the analysis of the data recorded. Other instruments that are analyzed include the blood sugar tester, the hospital thermistor, the lung pressure machine, the anesthesia vaporizer, the pulse oximeter and various cardiac output devices. Discussion made about the minimum alveolar concentration (MAC) as it applies to anesthesia. Discussion is also made about modern hearing aids and advances in eye replacement via electrical means. Pre-requisite: Electrical Engineering 348, 234 or equivalent.

3 lecture hours; 3 semester hours

**Electrical Engineering 542**

**Advanced DSP (digital signal processing)**

(1) Review briefly the concepts of DSP (E443), including digital filter design and windowing (2) Carry on with new topics in Adaptive Filters, Wiener Filters, Kalman filters, power spectrum and related topics, statistical signal processing, and stochastic processes.

3 lecture hours; 3 semester hours

**Electrical Engineering 543 (ELEG 543/BMEG 543)**

**Digital Signal Processing Lab**

Centered on a set of experiments for the ADSP21061 and ADS21065L, the goal of this course is to teach how to program the ADSP21061 and ADS21065L using visual DSP++ and MATLAB and illustrate concepts from theory of digital signal processing. The user must have solid understanding of DSP algorithms as well as an appreciation of basic computer architecture concepts. Pre-requisite: Electrical Engineering 443 or equivalent.

3 lecture hours; 3 semester hours
This course is offered to provide students with the basic understanding of the wavelet theory along with multi-resolution signal processing tools, which can be employed effectively to solve practical signal processing and analysis problems. The first half of the course introduces wavelet transforms from an engineering point of view. The topics covered include short time Fourier transform, continuous wavelet transform, and discrete wavelet transform and filter banks. The second half of the course presents a number of interesting applications of wavelets based advanced signal processing techniques such as filter banks, multi-rate signal processing, wavelet packets and lifting algorithms in areas of image compression, signal de-noising, signal estimation, signal enhancements, and transient detection etc. Prerequisites: Basic Digital Signal Processing Course. 3 lecture hours, 3 semester hours

**Electrical Engineering 546 (ELEG 546/MEEG 546)**  
**Biomedical and Biometric Signal Processing**  
The course teaches all of the basics of image processing as applied to biometrics analysis and medical imaging. 3 lecture hours, 3 semester hours

**Electrical Engineering 548 (ELEG 548/CPEG 548)**  
**Low Power VLSI Circuit Design**  
With the rapid development of mobile computing, low power VLSI design has become a very important issue in the VLSI industry. A variety of low-power design methods are employed to reduce power dissipation of VLSI chips. This course is designed to cover low-power design methodologies at various design levels (from system level to transistor level). The basic low-power design strategies will be introduced in the class. Students will use the learned knowledge to design low-power VLSI circuits. Upon completion of this course, students will be able to analyze the power consumption of VLSI circuits, and design low-power VLSI circuits using various strategies at different design levels. The major target is to design VLSI chips used for battery-powered systems and high-performance circuits not exceeding power limits. 3 lecture hours, 3 semester hours

**Electrical Engineering 549**  
**VLSI Testing**  
As VLSI continues to grow in its complexity, VLSI testing and design-for-testability are becoming more and more important issues. This course will cover VLSI testing techniques such as VLSI fault modeling (stuck-at-fault), automatic test generation, memory testing, design for testability (DFT), etc. VLSI scan testing and built-in self-test (BIST) will also be covered. Student will learn various VLSI testing strategies and how to design a testable VLSI circuit. 3 lecture hours, 3 semester hours

**Electrical Engineering 550**  
**VLSI: Digital System Design**  
This course will provide students with an in-depth understanding of the basic design methodologies of modern digital VLSI systems. Various perspectives of VLSI systems will be discussed, such as MOS transistor device characteristics, interconnect, time and power, clock distribution, packaging and I/O issues, VHDL system design and logic synthesis. Upon completing this course, students will have a comprehensive understanding about digital VLSI system design. 3 lecture hours, 3 semester hours

**Electrical Engineering 552**  
**Random Signal Processing**  
Introduces students to the theory of probability and stochastic processes. Topics include basic probability; single and multiple random variables; stochastic processes such as Gaussian processes, Markov processes; Various applications. 3 lecture hours, 3 semester hours

**Electrical Engineering 562 (ELEG 562/MEEG 562)**  
**Nanofabrication with Soft Materials**  
This is an advanced level graduate course focusing on fabrication of soft materials. Nanofabrication processes and nanosystem products will be discussed. Fundamentals associated with chips fabrications and linking them toward soft materials assembly will be detailed. Emerging nanotechnology based methods for soft and green electronics, mechanical parts, MEMS, PCBS will be covered. Gene chip, label free sensory assay using micro and nanofluidics will be discussed. Transfer printing, DNA-protein interactions using the chip and several nano-scale assemblies for soft materials fabrication will be discussed. 3 semester credits

**Electrical Engineering 596**  
**Seminar**  
Lecture hours and topics to be arranged with instructor. 1 credit hour

**Electrical Engineering 597**  
**Master’s Project**  
Lecture hours and topics to be arranged with Department Chair. 3 credit hours

**Electrical Engineering 598**  
**Thesis in Electrical Engineering**  
Lecture hours, semester hours and topics to be arranged with Department Chair. 3-6 credit hours

**Electrical Engineering 599**  
**Independent Study in Electrical Engineering**  
Independent study of advanced topics in Electrical Engineering and submission of project report as required. Problem assignment to be arranged with and approved by the Department Chair. 3 credit hours

**Engineering**

**Engineering 400**  
**Engineering Colloquia Series**  
This course is a series of seminars covering a spectrum of engineering topics. National and international distinguished speakers are invited to deliver the seminars. All Engineering students are required to register for the colloquia series. 1 lecture hour, 1 semester hour

**Engineering 404**  
**Optimization**  
Optimization is the maximization of an objective function involving multiple variables, subject to certain constraints. This course introduces the theory and application of optimization. Topics discussed include optimization, linear programming, the simplex algorithm, transportation, assignment, decision analysis. Software used includes Excel spread sheet and LINGO. 3 lecture hours, 3 semester hours

**Finance**

**Finance 400**  
**Financial Management**  
This course provides students with the opportunity to learn the basic tools and concepts of financial management. It will discuss important issues in modern finance, including the time value of money, valuation of stock and
bonds, capital budgeting, risk and return trad- 3 semester credits
eff, portfolio analysis, capital asset pricing 400 and completion of all required Finance concentration courses of model and financing decisions. Basic account- 3 semester credits
ing and statistics are essential to understand- 400 and completion of all required Finance concentration courses ing the principles developed in this course. Prerequisites: Admission to graduate study.

FINANCE 505 Advanced Financial Management and Policy
This course provides a general survey of the body of knowledge of corporate finance. Corporate finance is an area of finance dealing with the financial decisions corporations make and the tools and analyses used to make these decisions. The primary goal of corporate finance is to enhance corporate value and shareholder's wealth. To achieve this goal, financial managers must make important decisions such as project evaluations and investment decisions, financing decisions and dividend decisions. A solid understanding of the financial markets is also essential. The main concepts and principles in the study of corporate finance are also applicable to the financial problems of all kinds of firms. Basic accounting and statistics are essential to understanding the principles developed in this course.

FINANCE 510 International Finance
This is an introductory course about international financial management with special emphasis on multinational enterprises (MNEs). A MNE is defined broadly as one that is incorporated in one country but has operating subsidiaries, branches or affiliates located in other countries. Today, almost all large companies are multinational with the 1,000 largest MNEs accounting for about 80% of the world's industrial production. Main topics to be covered in this course include the foreign exchange market, exchange rate determination, foreign exchange risk management, and global debt and equity financing. The global financial environment such as the international monetary system and the balance of payments are also discussed. Prerequisites: FIN 400 and completion of all core courses or concurrent registration in final core courses.

FINANCE 520 Investment Analysis
This course provides a framework for the analysis of individual securities such as stocks, bonds and other financial instruments. It develops a systematic framework for the construction of efficient portfolios and optimal investment strategies. It also discusses the investment environment that includes the financial markets and major financial institutions, the Federal Reserve, and the determination of interest rates. Various investment strategies used by practitioners are also discussed. Prerequisites: FIN 400 and completion of all core courses or concurrent registration in final core courses.

FINANCE 530 Technical Analysis and Trading
This is a hands-on course that teaches principles and methods of selecting and managing stocks using professional trading software. Theoretical concepts and trading principles will be taught throughout the course and students will manage an e-portfolio in real-time with imaginary funds. Prerequisites: FIN 400 and completion of all required Finance concentration courses or concurrent registration in final required concentration courses.

FINANCE 540 Financial Analysis and Modeling
This course introduces important financial models and shows how they can be solved numerically and/or simulated using computer technology (e.g. Excel). This class covers standard financial models in the areas of corporate finance, financial statement simulation, accounting model, portfolio problems, options, portfolio insurance, duration, and immunization. It will give tools for understanding the computational intricacies in finance. Too often, finance courses stop short of making a connection between textbook finance and the problems of real-world business. This course bridges this gap between theory and practice by providing a nuts-and-bolts guide to solving common financial and accounting models with spreadsheets. Prerequisites: FIN 400 and completion of all required Finance concentration courses or concurrent registration in final required concentration courses.

FINANCE 545 Financial Derivatives and Risk Management
This course covers financial derivatives such as forward contracts, futures contracts, options and swaps. A derivative is a financial instrument that is derived from the value of an underlying asset. The underlying asset can be commodities, equities, bonds, foreign exchange, or indices such as a stock market index, consumer price index or even an index of weather conditions. These derivatives can not only be used for speculation and arbitrage, but more importantly, can also be used for risk management. Students will develop a working knowledge of how these derivatives are used and how they are priced. Prerequisites: FIN 400 and completion of all core courses or concurrent registration in final core courses.

FINANCE 550 Cases in Finance
The focus of this course is the application of managerial finance principles (from FIN 400: Financial Management) to the financial decisions made by business. The purpose is to develop student analytical ability through the discussion and analysis of finance cases. Topics covered include financial concepts and planning; valuation, rates of return and lever-age; cost of capital; dividend policy; sources and uses of investment and working capital; and international finance. Prerequisites: FIN 400 and completion of all core courses or concurrent registration in final core courses. For the Global Financial Services concentration, this course should be taken as the final required Global Financial Services course.

FINANCE 555 Management of Financial Institutions
This course covers the management of financial institutions (FIs), including depository institutions such as commercial banks and savings institutions, insurance companies, securities firms and investment banks, mutual funds, and finance companies. The focus is on risk measurement and management facing these FIs. The roles and operations of financial markets and various financial instruments and the impact of interest rates on the economy will also be discussed. Prerequisites: FIN 400 and completion of all required Finance concentration courses or concurrent registration in final required concentration courses.

Global Development and Peace

GLOBAL DEVELOPMENT AND PEACE 401-501
Graduate Seminar in Qualitative Methods
This course is designed to introduce the student to qualitative research methods. Topics might include Content Analysis, Fieldwork and Observation, and Interviewing. The use of Grounded Theory will be examined as well as methodological issues of data collection, reduction, display, and interpretation. It is recommended that the student have a familiarity with quantitative research methods before taking this class, as this class will build on previously explored research topics. 3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 402-502
Graduate Seminar in Quantitative Methods
This course is designed to build upon the students' previous research methods experience. Assuming a familiarity with survey research as a methodology, this course will examine further quantitative research methods and procedures. Key emphasis will be placed on regression analysis and other statistical means of data interpretation, such as ANOVA, MANOVA, t-Tests, F-tests and others. 3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 411-511
Issues in Economic Development
Course Description: This course explores current issues in economic development including poverty and poverty alleviation, strategies to overcome poverty and underdevelopment including microfinance, the roles of multilateral financial institutions, globalization, and the Washington Consensus. The course will also explore the roles of regional arrangements and development institutions in attempts to overcome underdevelopment. The theoretical underpinning of the course lies in the many schools of thought that have produced explanations of the causes and consequences of development and underdevelopment. The course attempts to plot strategies to achieve goals of economic development. 3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 422-522
International Conflict Negotiation
This course examines theories about and sources of conflict (resource allocation and shortage; ideological, religious, and cultural disagreement; power distribution; perceptions of security; etc) to set the stage for conflict analysis and negotiation. In conflict analysis, the impact of cultural-linguistic systems on agreements and disagreements is examined. Culturally sensitive strategies of negotiation, conflict resolution, and mediation also are examined and practiced. Students will write several case reports on situations of conflict and also prepare a medium-length (20 pp. or so) term paper. 3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 427-527
Culture and International Development
The course will examine development theory and the underlying cultural assumptions of Western models of socioeconomic development. It will also study the innovative non-Western models of development such as micro-credit in South Asian and the Confucian-influenced models of development in parts of East and Southeast Asia. This course will identify the ways in which Western cultural assumptions can clash with the cultural underpinnings of many less developed countries. Using the case study method, learners will identify ways in which potential clashes are anticipated based on a region's history and its cultural underpinnings. Learners will assess the strategies currently used to address development-related challenges and, when appropriate, propose alternative strategies. 3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 460
Sustainable Development
The course will examine the critical relationship between oil supply and demand and environmental challenges and the international priorities and policy initiatives of modern states. In looking forward into the 21st century, the course will identify and assess the policy options available to major international players, including the United States and the European Union; Saudi Arabia and other major oil producing countries; Japan, China and India and other consuming countries; transnational energy companies and non-governmental organizations (NGOs). Environmental concerns will be examined and policy options will be assessed within the context of sustainable economic development. 3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 500
Graduate Co-op/Internship in Global Development and Peace
By Arrangement. 1-3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 521
Inequality, Poverty and Globalization
This course examines two key issues for the international community in an era of globalization: inequality and poverty. Various theoretical, historical and empirical approaches will be used in analyzing the causes and consequences of inequality and poverty for the developing world. Students are also encouraged to develop economic, political, cultural, and social solutions to the chronic issues of...
Global Development and Peace

poverty and inequality in the world.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 523

Peace and Development

This course examines the relationship between peace and development. Security of the state, community, and the person is related to modalities of conflict – ethnic, ideological, religious – and their combined roles in retarding development. The course draws on regional examples and studies of conflict analysis, peacemaking, and the changing face of development. The course also examines strategies to overcome conflict and achieve development goals.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 524

Political and Economic Integration

This course explores models of integration – functionalism, customs union, political integration, and federalism. Dual legislative systems are examined as instruments of harmonization of laws, and the roles of secretariats as vehicles of transition are explored. The course considers historical and contemporary models including the Federation of the West Indies, and the European Union. The course examines shortcomings of, and successful attempts at, political and economic integration.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 528

Global Economy and Terrorism

This course identifies the underlying conditions needed for the realization of a stable global economy and it highlights the ways in which terrorism impacts on the stability of markets and on investment and lending trends and on interest rates in affected regions and states. The course also explores the “practical” rationale for terrorism as well as terrorism’s ideological and philosophical roots as well as the actual historical trajectory of terrorist organizations and states. Through the case study method, we will review those venues where terrorism has been diffused and attempt to understand such developments and their applications to contemporary society.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 529

Political Economy of Migration

This course explores the constants and variables of immigration. The course will also consider the extent to which overseas invest-

ment in less developed countries and the strengthening of regional customs unions and the WTO will affect immigration trends. Due to the gap in the quality of life in developed versus less developed countries as well as the ongoing demand for cheap, unskilled labor, the number of immigrants to the developed world continues to grow in the United States and in the European Union. This course also invites learners to assess how the growing demographic of immigrants and their children may affect voting patterns, public education, and the foreign policy priorities of the developed societies where they tend to settle.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 533

Cultural Dimensions of Globalization

While recognizing that a developing consensus exists on economic globalization, this course explores the broader cultural and philosophical implications of globalization. Extending beyond economic globalization to the social, political and cultural dimensions, one must indeed explore the substance of what is being “globalized” in each of these aspects of public life. This course invites learners to grapple with the question of whether or not the world is ready to implement an expanded globalization or whether a “dialogue among civilizations” is a necessary intermediary step in the process.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 537

Global Communication and Mass Media

This course examines media’s role in global communication and nation building. In particular it studies information flow, media and development, communication and telecommunication policies, transnational media corporations and their role in economic development, media and public diplomacy, international journalism, and information and public campaigns.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 560

Sustainable Development

This course focuses on issues related to sustainable development and preservation of the environment. To a significant extent, the course is reliant on the case study method. Through a geographically diverse series of case studies, the course will highlight the challenges faced by the development process due to the unmet social and quality of life demands of growing populations in less developed countries vis-à-vis the need to preserve and maintain the environment and endangered ecosystems. Through the case study method, strategies for caring for threatened energy resources will be assessed. The course will also use the case study method to understand the challenges that exist in developing strategies of economic growth that allow for significant improvement in the quality of life of local populations as well as the protection of wetlands, endangered species, hydrologic cycles and clean water supply.
3 Semester Hours

GLOBAL DEVELOPMENT AND PEACE 591

Internship

Students will complete an eight-week cross-cultural internship with international organization or overseas school, agency or company. A written report by the student and an assessment of the Student’s performance by the agency where the student intern will be submitted as the basis of evaluation.
3 semester hours

GLOBAL DEVELOPMENT AND PEACE 598

Tutorial

The tutorial is offered at the completion of the internship. The tutorial invites students in the Master of Arts in Global Development and Peace program to reflect on their internship experience based on the student’s experiences prior to and during the tutorial. The tutorial also prepares students for the program’s comprehensive exam that includes both an oral and a written component and is conducted in the final weeks of the tutorial class. As a part of the tutorial students also assemble a portfolio of all of the major papers and projects that they have completed during the program and a written reflection on that work. Prerequisite courses: GLDP 591 and completion of at least 21 semesters hours of the GLDP program.

GLOBAL DEVELOPMENT AND PEACE 599

Thesis

As a final project demonstrating competency, students are asked to write and defend a thesis.
3 semester hours

GLOBAL DEVELOPMENT AND PEACE 600

Thesis Extension

1 semester hour

The following courses taught by the School of Business also are available to Global Peace
GLOBAL MEDIA AND COMMUNICATION STUDIES 511 Communication Theories
This course focuses on communication theories. Major communication theories in the areas of information processing, persuasion, influence, decision-making, conflict resolution, group communication, intercultural communication, organizational communication, media communication, new media communication, social media and culture, media effects, and public opinion will be studied.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES/GLDP 522 Conflict Analysis and Resolution/International Conflict and Negotiation
This course examines theories about and sources of conflict (resource allocation and shortage; ideological, religious, and cultural disagreement; power distribution; perceptions of security, etc.) to set the stage for conflict analysis and negotiation. In conflict analysis, the impact of cultural-linguistic systems on agreements and disagreements is examined. Culturally sensitive strategies of negotiation, conflict resolution, and mediation also are examined and practiced.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES/GLDP 529 Advanced Intercultural Communication
This course studies different cultures around the world. In particular, it examines value systems, gender roles, and family structures. It will also examine the relationship between culture and religion, culture and economic development, culture and media, culture and new media, and culture and human development.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES/GLDP 533 International Advertising and Public Relations
This course focuses on the theoretical and practical aspects of international advertising and public relations. In particular, it examines the characteristics, problems, and challenges in the areas of international advertising and public relations. It also studies how media and new media are used for advertising and public relations in an international setting. Business, economic, cultural, social, and political factors will be analyzed in the context of international advertising and public relations.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES/GLDP 537 Global Communication and Mass Media
Critical study and applications of theories and principles of global communication and mass media. Analysis of the roles traditional media, new media, and media professionals play in politics, governance, and international relations. Examination of how media systems work in different countries, how journalists cover news and events, how information flows globally, and what impact information flow creates to countries and peoples around the world.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES/GLDP 543 Communication and National Development
The focus of this course is on communication and national development and nation building. Students will learn how media, communication, information, and media technology are used and can be used to improve economic, political, and cultural conditions of people around the world. In particular, the course will look into the functions media communication, social media networking, and social marketing demonstrate in reducing poverty, combating hunger, improving literacy, promoting public health care, fighting corruption, and protecting the environment among others.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 546 Media Business and Management
This course examines media industry from business and management perspectives. It focuses on business concepts, media management theories, and the impact of digital media on the media industry landscape.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 552 Advanced Web Publishing and Design
This course focuses on Web Publishing and Design methods using current Web design and graphic tools. Students will learn the techniques and tools to create Web sites and learn to maintain the Web sites for clients and consum-
GLOBAL MEDIA AND COMMUNICATION STUDIES 555

News Media and International Journalism
This course focuses on how international news is gathered and reported and how journalists should cover international news. The course also examines the issues of international news media and foreign relations.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 557

Political Communication and Public Diplomacy
This course focuses on the relationship between media and politics and media and public diplomacy. It will also examine the issues of freedom of speech and freedom of the press, media as mouthpiece or watchdog. The course will also study how media are used in governance, how public opinion is formed, shaped, and influenced, how political and public agenda are set, and how media can be used for public diplomacy.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 562

Media Communication Law and Legal Issues
This course examines the federal, state, and local laws that most directly affect mass communication in the United States. It will also look into the judicial systems in other countries. Issues covered will include freedom of speech, freedom of the press, libel, invasion of privacy, news gathering, source protection, copyright, and truth in advertisements.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 572

Advanced Multimedia
This course focuses on advanced multimedia technology and techniques. Students will learn the most current tools, software, and techniques to create and edit multimedia digital videos to be used for multiple mediums and platforms.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 591

Internship
The Graduate Internship is completed once the student has completed at 21 credits in the GMCS program. It serves as the venue in which students can accomplish two important outcomes, i.e., they can apply the foreign language that they have been studying in an overseas setting (international GMCS students may do their internship in the US if they already speak a second world language in their home country rather than English) and they can intern in an agency or organization where the skills that they have acquired in the GMCS academic program can be put into practice. New Media students will be expected to complete a project or portfolio, which demonstrates their ability to communicate cross-culturally in the New Media environment. Global Communications students will produce a project demonstrating the ability to communicate interculturally in a business, government or NGO setting.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 599

Tutorial
The tutorial is offered at the completion of the internship. The tutorial invites students in the Master of Arts in Global Media and Communication Studies program to reflect on their internship experience based on the student’s experiences prior to and during the tutorial. The tutorial also prepares students for the program’s comprehensive exam that includes both an oral and a written component and is conducted in the final weeks of the tutorial class. As a part of the tutorial students also assemble a portfolio of all of the major papers and projects that they have completed during the program and a written reflection on that work. Prerequisite courses: GMCS 591 and completion of at least 21 semester hours of the GMCS program.
3 semester hours

GLOBAL MEDIA AND COMMUNICATION STUDIES 599

Thesis
The thesis represents the culmination of the MA in Global Media and Communication Studies and demonstrates competency in the major as well as the track in which the student has chosen to specialize. The Thesis requires identifying a theme or topic selected by the student in consultation with the thesis advisor and this is followed by detailed research on the topic and the analysis of findings in the form of substantial written work. This is normally done within the confines of the student’s final semester of study in the program.
3 semester hours

Information Systems and Knowledge Management

INFORMATION SYSTEMS AND KNOWLEDGE MANAGEMENT 400

Information Systems and Technology
Information technology has become a key component for accomplishing strategic and operational goals in organizations today. As such, organizations expect their new employees to have a basic understanding of information technologies. To accomplish organizational goals and advance one’s career path, one needs to understand and apply information technologies effectively, efficiently, and creatively. The purpose of this course is to provide an introduction to information systems and technology and to familiarize students with the fundamental concepts and principles of information systems. The course is targeted for graduate students who have little or no background in information systems. Therefore, it focuses on breadth of coverage rather than depth in any specific area.
Prerequisites: Admission to graduate study.
3 semester credits

INFORMATION SYSTEMS AND KNOWLEDGE MANAGEMENT 505

Knowledge Management and Business Intelligence
This course will explore various issues of creating, storing, sharing and applying knowledge in organizational environment. The course introduces guiding theories and concepts of knowledge management and examines various tools used in the processes. Then the course also explores business and management topics in knowledge management, including general issues in evaluating informal systems like knowledge management systems and the relationship of knowledge management to the work, etc. Prerequisites: ITKM 505 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

INFORMATION SYSTEMS AND KNOWLEDGE MANAGEMENT 506

Decision Support Systems
Decision Support Systems (DSS) are interactive computer based systems that help decision makers understand and use data, models, and other analytical tools to evaluate their options. The course will focus on several aspects of DSS. Topics covered include Data-Driven systems, Model-Driven systems and Communications-Driven sys-
Information Systems and Knowledge Management • Management

Management credits

MANAGEMENT 400
Leadership and Management
The purpose of this course is to introduce students to the primary tenets of leadership and management. Successful organizations foster both innovation and efficiency. Students will evaluate the different dynamics related to realizing organizational progress through the effective and efficient use of talent, structure, culture, methods, and technology. In addition to the required textbooks, students will be required to research industry journals as a way to evaluate the application of leadership and management techniques in real settings across various industries. Prerequisites: Admission to graduate study.
3 semester credits

MANAGEMENT 505
Organizational Behavior
This course permits students to examine both theory and practice of interpersonal, team and organizational behavior. Individual and small group projects develop and illustrate principles of relationships, communications, role assignment, leadership and conflict management in organizations. Experiential designs permit learning through group participation, case analysis and individual problem solving. Prerequisites: MGMT 400 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

MANAGEMENT 511
Human Resources Management
This course is an in-depth survey of current theory, research and practice in the management of human resources in organizations. Job design, recruitment, selection, performance feedback, goal-setting, training, employee rights, safety, compensation and benefits issues are reviewed within the context of their application in the United States as a world standard for such practices, with comparisons to customs and practices in the international arena. Intensive research into current human resource topics is required. Prerequisites: MGMT 400, MGMT 505 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

MANAGEMENT 512
Organizational Development
The course is a hands-on course that provides the concepts and practical tools needed to start a small business. The course offers instruction in accounting concepts specific to small businesses experience with accounting software. Understanding of financing opportunities including bank loans and venture capital will enable the student to obtain financing for a small business. Students will also study basic financial management principles relevant to small business. The course also focuses on setting up the legal structure for the business by enabling the student to choose the appropriate organizational form and to study the regulatory and employment laws specific to small businesses. Prerequisites: MGMT 505 and completion of all required Management Major courses or concurrent registration in final required major courses.
3 semester credits

MANAGEMENT 515
Assessment
This course focuses on workplace assessment related to recruitment, placement, and workplace training. Performance appraisal is emphasized including employee development, development of objectives and process, monitoring, retention and separation. The understanding of selection and assessment instruments and methodology are studied as well as the statistical analysis required for psychometric assessment. Prerequisites: MGMT 400, MGMT 505 and completion of all core courses or concurrent registration in final core courses. Normally students take MGMT 511 before MGMT 512.
3 semester credits

MANAGEMENT 523
Leadership, Teams and Managing Change
This course focuses on the development of leadership skills important in the effective management of change. Through role-playing exercises, videotapes, diagnostic tools, seminar discussion, selected readings, and a group project, students will learn theory and build interpersonal skills necessary for providing leadership in diverse multicultural groups and organizations. The course will address the managerial issues present in organizations undergoing accelerating change and adopting a culture of creativity. Creating and sustaining high performance multi-cultural and interdisciplinary traditional and virtual teams is covered. Prerequisites for Management Major or Human Resources Management Major: MGMT 400 and MKTG 400 and completion of all required major courses or concurrent registration in final required major courses.
3 semester credits

MANAGEMENT 525
Counseling
The course surveys counseling theory, counseling strategies, and appraisal procedures. The purpose is to enable the human resources manager to identify potential employee problems such as addiction, mid-life issues, and psychological disorders. This training will facilitate the ability of the manager to refer employees for professional counseling and intervention. There will also be emphasis on resolving workplace interpersonal conflicts. Prerequisite: MGMT 505 and completion of all required Human Resources Management Major courses or concurrent registration in final required major courses.
3 semester credits
Management

istration in final required major courses.
3 semester credits

MANAGEMENT 534
Strategic Sourcing and Vendor Management
This course examines the somewhat recent economic evolution from a primarily manufacturing model to a more information driven economy with an emphasis on the impact of these changes on professional careers. Students will review and assess the primary attributes of IT, such as data management and software as a way to evaluate the potential role of technology in administering professional activities. In the final module, students will develop a personal strategy by reflecting on their individual attributes as a way to further develop their unique talents in the workplace. Prerequisites for Management Major and Operations Major: MGMT 505, MGMT 560 and completion of required major courses or concurrent registration in final major required courses. Students may take MGMT 734 or MGMT 540 but not both.
3 semester credits

MANAGEMENT 539
International Issues
This course focuses on current international issues that affect business operations at home and abroad. Changing business environments are discussed and analyzed. Students are required to formulate new global business strategies in light of emerging international trends and events. In some cases, students may supplement their study by field trips and on-site analysis.
3 semester hours

MANAGEMENT 540
Society and Technology
This course examines the complicated relationship between society and technology. The coursework will review the role technology has played in human development in areas, such as commerce, the environment, politics, warfare, health, and wealth distribution. Students will evaluate the holistic impact of these applications with an emphasis on moral issues, such as balancing the need for progress with the need for social justice. Students will also explore the possibilities and challenges related to emerging technological innovation. Prerequisites for Management Major or Operations Major: MGMT 505, MGMT 560 and completion of major required courses or concurrent registration in final major required courses. Students may take MGMT 534 or MGMT 540 but not both.
3 semester credits

MANAGEMENT 548
Business Intelligence & Decision Support Systems

MANAGEMENT 545
Labor & Employment Law
Students study the current employment and labor law in the U.S. and the historical development of these laws from common law to existing law. The course covers a wide range of legal and regulatory topics needed for human resources management including workplace safety, family leave, equal employment and pay, wrongful discharge, privacy, harassment, and illegal workers. In addition, development of global laws and laws related to employment and labor in other countries are reviewed. Prerequisites: MGMT 400, BLAW 400 and completion of all core courses or concurrent registration in final core courses. Normally students take MGMT 511 before or concurrent with BLAW 545.
3 semester credits

MANAGEMENT 555
Global Program and Project Management
This course focuses on the managerial aspects of how to effectively manage, plan and execute programs/projects with a focus on high quality deliverables arriving on time, within budget, within scope and to the customer’s satisfaction. Areas covered will include program and project management life cycle phases, executive sponsorship, portfolio investment management selection and prioritization, requirements, scope and project charters, planning, development, estimating, staffing, leadership, scheduling, risk management, change management, project metrics, vendor integration and management and other related topics. This course is based on current and emerging best practices and principles. Project Management certification requirements and real world case studies are discussed. Prerequisites: MGMT 400, MGMT 505 and completion of all core courses or concurrent registration in final core courses.
3 semester credits

MANAGEMENT 560
Foundations of Business Process and Operations Management
The student is introduced to process management methods which are fundamental to delivery of products and services. Topics covered include capacity analysis and planning, inventory management, design of jobs for quality and cost effectiveness, demand forecasting, work flow management, queuing theory, project management and total quality management. Prerequisites for Operations Major: MGMT 400 and completion of all core courses or concurrent registration in final core courses. Prerequisites for Management Major and Human Resources Management Major: MGMT 400 and completion of required major courses or concurrent registration in final required major courses.
3 semester credits

MANAGEMENT 565
Foundations of Product Management
This course focuses on the development of the entrepreneurial spirit and develops specific skills to fulfill plans that develop from that creative and persevering spirit. Many different aspects of entrepreneurial ability will be emphasized including a strong work ethic, leadership, team building and the development of business relationships. The course also covers the growth of an existing business through entrepreneurship. Students will conceive, develop and present a comprehensive business plan intended to obtain external financial support or internal organizational support. Prerequisites for Small Business and Entrepreneurship Major: MGMT 400 and completion of all core courses or concurrent registration in final core courses. Prerequisites for Management Major: MGMT 400 and completion of required Management Major courses or concurrent registration in final required Major courses.
3 semester credits

MANAGEMENT 571
Foundations of Service Management and Engineering
With the rapid growth of the services industry, this course integrates topics from economics, engineering, law, technology and organizational theory to deal with how firms change over time to become more service oriented or become service business and the mechanisms and tools by which they seek innovation and competitive advantage in the service sector. The services life cycle is reviewed. In addition, enabling technologies and how different disciplines help to answer questions about how business services combine, evolve, standardize and mature are covered. Prerequisites
for Management Major or Operations Major: MGMT 505, MGMT 560 and completion of required major courses or concurrent registration in final required major courses.

3 semester credits

MANAGEMENT 582
Small Business and Entrepreneurship
This course focuses on the development of the entrepreneurial spirit and develops specific skills to fulfill plans that develop from that creative and persevering spirit. Many different aspects of entrepreneurial ability will be emphasized including a strong work ethic, leadership, team building and the development of business relationships. The course also covers the growth of an existing business through entrepreneurship. Students will conceive, develop and present a comprehensive business plan intended to obtain external financial support or internal organizational support. Prerequisite: MGMT 560 This course is intended for students in their next to last semester of study.

3 semester credits

MANAGEMENT 585
New Product Commercialization
The objectives of the course are to understand and apply concepts and techniques of product Commercialization. The course focuses on taking student created product concepts and having student teams drive the concepts to become actual products. Product design, prototype creation, market analysis, and financial analysis all come together within the student team to create a viable product. If ideas are worthy, teams may work with the University’s CTech IncUBator to actually commercialize their products. Students are strongly encouraged to find a sponsor to actually commercialize their product ideas. Prerequisite: MBA students must have completed all foundation level courses and have advisor approval.

MANAGEMENT 590
Intellectual Property Management
This course will discuss the strategies and methods available for protection of intellectual property in the global environments. Global business issues, such as protection of ideas in an off shoring arrangement, IP co-development and other issues will also be addressed.

Marketing

MARKETING 400
Marketing
The course will explore the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services, to create exchanges that satisfy individual, organizational, and societal objectives. The underpinnings of the marketing discipline will be taught through text, case, articles and class discussion. Mastery of these principles will come through a variety of individual and group assignments to create marketing solutions for real-world products. Prerequisite: Admission to graduate study.

3 semester credits

MARKETING 508
Strategy and Advanced Marketing Concepts
This course focuses on advanced topics in strategy, marketing research, promotion, pricing, supply chain management and product development and management. The focus on strategy will enable the student to develop competitive advantage through the enhancement of customer value. The course explores specific topics in marketing beyond those learned in the introductory marketing course. The purpose is to provide all students with an in-depth understanding of the marketing concepts through lecture, case analysis and team projects. Prerequisite: MKTG 400, MKTG 515 and completion of all core courses or concurrent registration in final core courses.

3 semester credits

MARKETING 515
Customer Analysis
This course will take up special topics in customer behavior utilizing knowledge not only from research on consumer behavior but from a variety of disciplines including psychology, sociology and anthropology. The leading models of customer behavior in both industrial and consumer settings will be analyzed. The qualitative and quantitative marketing research tools necessary to understand buyer behavior dynamics in any market will be stressed. Prerequisite: MKTG 400 and completion of all core courses or concurrent registration in final core courses.

3 semester credits

MARKETING 560
Global Market Management
This course analyzes strategy, planning, implementation and control for market entry and development. Topics include social, political and economic changes affecting marketing opportunity; focused versus dispersed marketing efforts; marketing in developed and underdeveloped countries; and marketing systems required for the various strategic alternatives. The focus will be on creating competitive advantage in the global marketing environment. Prerequisite for Marketing Major: MKTG 400, MKTG 515 and completion of all required Marketing Major courses or concurrent registration in final required Major courses. Prerequisite for International Business Major: MKTG 400 and completion of all core courses or concurrent registration in final core courses.

3 semester credits

MARKETING 505
Marketing Research
This is an advanced course in marketing research theory and application. The purpose is to provide the student with an in-depth understanding through the application of research concepts with hands-on projects. The student will design and implement survey and experimental designs. Advanced approaches to sampling target populations, designing survey instruments, utilizing the best statistical analysis, and analyzing resultant data both quantitatively and qualitatively are explored in this course. Effective methods for organization and reporting of research results are studied and put to practice by the student. Prerequisite: Completion of all required Marketing Major courses or concurrent registration in final required Major courses.

3 semester credits

MARKETING 535
Electronic and Mobile Business
The goal of this course is to prepare current and future executives, managers, and strategists to be leaders and create value in the New Economy – to gain understanding and insight on how the functions of management and marketing in the New Economy have changed as well as how new technology and media forms have created a radically different business environment. The course examines the impact of the evolving virtual worlds of Internet and mobile commerce on the strategy of traditional “brick-and-mortar” companies. Up-to-date information will be
utilized from current publications to provide the student with the ability to work in the new wireless world. This new business frontier requires most firms to significantly change their business strategy and presents unprecedented new opportunities for fast acting entrepreneurs. Prerequisites for Information Technology and Knowledge Management: MKTG 400, ITKM 400, and completion of all required Information Technology and Knowledge Management Major courses or concurrent registration in final required Major courses. Prerequisites for Marketing: MKTG 400, ITKM 400, and completion of all required Marketing Major courses or concurrent registration in final required Major courses. Course is cross-listed with ITKM 535. 3 semester credits

Marketing 520
Customer Relationship Management
This course emphasizes the long term organizational value of developing relationships with customers. The first focus is on the use of data to provide increased value for the firm. Students will understand how to create value for the customer with a systematic analysis of customer needs. The second focus is on the nature of interpersonal relationships in a business setting that develops long lasting business relationships. Prerequisite: MKTG 515 and completion of all required Marketing Major courses or concurrent registration in final required Major courses. 3 semester credits

Marketing 522
Conflict and Negotiation
The development of conflict-management and negotiating skills are taught in this course with particular emphasis on achieving effective and efficient outcomes within a global and multicultural context. Experiential exercises, readings and discussions will demonstrate various strategies for a broad range of negotiating scenarios, e.g., buyer-seller, management-labor, personal salary increase, etc. Prerequisites for Marketing Major: MGMT 400 and MKTG 400 and completion of all required Marketing Major courses or concurrent registration in final required Major courses. Course is cross-listed with ITKM 522. 3 semester credits

Marketing 525
Data Mining and Data-Driven Marketing
This course enables the student to use data to make marketing management decisions. The student will learn to use statistical tools and analytical techniques to transform data into useful information that will result in the development of segmentation, targeting and analytical techniques to transform data to provide increased value for the customer with a systematic analysis of customer needs. The second focus is on the nature of interpersonal relationships in a business setting that develops long lasting business relationships. Prerequisite: MKTG 515 and completion of all required Marketing Major courses or concurrent registration in final required Major courses. 3 semester credits

Marketing 540
Personal Sales and Sales Management
The purpose of this course is to develop the student's ability to engage in real world professional sales and sales management. The foundation of personal sales is to be able to communicate effectively in both one-on-one sales situations and in group presentation situations. Psychological theory related to persuasion and interpersonal relationships will be used to provide the foundation for specific sales techniques. Practical experience in persuading, prospecting, negotiating, referrals, closing the transaction, and responding to buyer concerns will be utilized. The course will also focus on the management of a sales force including methods of compensation, motivation, hiring and retaining sales people, and the legal and ethical aspects of selling. Prerequisite: MKTG 515 and completion of all required Marketing Major courses or concurrent registration in final required Major courses. 3 semester credits

Mathematics

Mathematics 401
Advanced Analysis for Scientists and Engineers I
Partial differential equations, Bessel functions, Legendre polynomials. Fourier series, boundary and initial value problems, topics in vector analysis, tensor analysis. Prerequisite: Math 301 (Differential Equations). One semester of advanced calculus strongly recommended. 3 semester hours

Mathematics 402
Advanced Analysis for Scientists and Engineers II
Functions of a complex variable, conformal mapping, calculus of residues, operators. Prerequisite: Math 301 (Differential Equations). One semester of advanced calculus, or permission of the instructor. 3 semester hours

Mathematics 403
Functions of a Complex Variable I
The general theory of functions of a complex variable. Complex algebra, analytic functions and their mappings, complex integration, infinite series, Taylor and Laurent expansion, isolated singularities, residue theory. Prerequisite: One year of advanced calculus. 3 semester hours

Mathematics 404
Functions of a Complex Variable II
Continuation of Mathematics 403. Additional topics include insofar as time permits, har-
Monic functions, conformal mapping and applications, normal families. Riemann mapping, analytic continuation, Riemann surfaces, infinite products, entire functions. Prerequisite: Math 403.

3 semester hours

MATHMATICS 407
Introduction to Modern Analysis
Metric Spaces, sequences and series, continuity differentiation, Riemann-Stieltjes integral, functions of several variables.

3 semester hours

MATHMATICS 411 & 412
Introduction to Applied Mathematics 1 & 2
Introduction to Hilbert Space, Fourier Series, calculus of variations, boundary value problems, Green's functions and integral equations.

3 semester hours

MATHMATICS 414
Numerical Analysis
Interpolation, numerical differentiation and integration, numerical solution of differential equations, least squares, error analysis. Prerequisite: Math 215 (Calculus and Analytic Geometry III) or equivalent. Math 301 (Differential Equations) strongly recommended.

3 semester hours

MATHMATICS 415
Advanced Numerical Analysis
Converance, numerical stability, round off error, truncation error arising from the approximation of differential and integral equations.

3 semester hours

MATHMATICS 423
Mathematical Statistics I
Probability theory, discrete and continuous distributions, transformations, moment generating functions, characteristic functions, central limit theorem, sampling distributions. Prerequisite: Math 215 (Calculus and Analytic Geometry III) or equivalent.

3 semester hours

MATHMATICS 424
Mathematical Statistics II
Continuation of Mathematics 423. Additional topics include estimation, testing of hypothesis, confidence intervals, regression, and analysis of variance. Prerequisite: Math 423 or Math 323.

3 semester hours

MATHMATICS 431
Introduction to Topology and its Application
Elements of point set theory; introduction to topological spaces including metric spaces; separation and count able axioms; connectedness; compactness; completeness. Prerequisite: One year of advanced calculus.

3 semester hours; offered as needed

MATHMATICS 451
Linear Algebra and Matrix Theory I
Linear vector spaces, bases, dimension, inner product, norm, orthogonality. Linear transformations, matrices, matrix algebra, Hamilton-Cayley Theorem, eigenvalues and eigenvectors. Pre-requisite: Math 391 (Modern Algebra) or equivalent.

3 semester hours

MATHMATICS 452
Modern Algebra II
Groups, rings, fields, ideals, polynomials. Prerequisite: Math 391 (Modern Algebra) or equivalent.

3 semester hours

MATHMATICS 453
Modern Algebra I
Groups, rings, fields, ideals, polynomials. Prerequisite: Math 391 (Modern Algebra) or equivalent.

3 semester hours

MATHMATICS 454
Modern Algebra II
Continuation of Math 453. Modules, field extensions, Galois theory, real fields, special topics. Prerequisite: Math 453.

3 semester hours

MATHMATICS 480
Selected Topics in Mathematics
Current topics in applied mathematics topics will be selected from specific disciplines as a focus for intense study. Current topics in Physics, Chemistry, Biology and Computer Science will be offered on a semester basis. The course may be repeated as long as topical focus changes.

3 semester hours

Mechanical Engineering

MECHANICAL ENGINEERING 407
Advanced Computer Aided Project Design
This course focuses on the study of modern industrial materials and the process of developing creative solutions through conceptual analysis and synthesis on different advanced and automated manufacturing processes. The course will help students to learn the emerging topics in the material and manufacturing industries. The topics cover the study on today's popular industrial materials, material selections and industrial applications, and their related manufacturing techniques in US industry. Topics also include the introduction of quality control (QC) process that is important to the production with the high quality. The course has two class projects which will guide and help students to learn the ways of preparing for professional research and keep track of the latest technologies in modern materials, advanced and automated manufacturing processes. Pre-requisites: Engineering 111, Mechanical Engineering 223.

3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 410
Advanced Fluid Dynamics
Advanced topics in applied fluid mechanics. Review of continuity, momentum, and energy equations for viscous, incompressible fluid; vorticity and circulation concepts and theorems. Selected topics from the following areas: Complex potential, conformal mapping and applications. Airfoil and wing theory. Boundary layer theory; similarity solutions for laminar flows, integral techniques for turbulent flows. Compression and expansion waves in compressible flows; oblique shock waves, Prandtl-Meyer flow. Propagating waves and applications; shock tube, transients in duct systems. Pre-requisite: Undergraduate Fluid Mechanics, Mechanical Engineering 309.

3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 421
Computer Aided Engineering Design
This course applies 3-D CAD system e.g., Pro E to industrial product and system design. These CAD systems are very practical and powerful 3-D CAD tools and they have been widely used in the industry. The first half of the class focuses on learning fundamentals of the 3-D system, its popular applications and its related techniques. The special topics of the design concept are also included. The second half covers several practical projects. Students will combine the design techniques with the real project and use 3-D tools to design the product or part of industrial system. All projects will be presented by students in class. Pre-requisites: Engineering 111, Physics 111.

3 lecture hours; 3 semester hours
and very practical topics in today’s industrial design applications. Also, some useful knowledge, such as PLC (Program Logic Control), calculation and selection of industrial motors, fundamentals of automation, sensor technology, and selection of material on different industrial applications are included. Several more complicated projects in this class will help students learn how to manage the different engineering projects and understand all related design issues which will improve the future production and manufacturing process. Pro-E will be used as a 3-D CAD tool to design these advanced engineering projects. All projects should be presented by students in the class. Pre-requisites: Mechanical Engineering 421.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 423
Computer Aided Manufacturing (CAM) and NC Machining
This course applies manufacturing and various numerical controlled software for designing computer-aided manufacturing and NC machining systems, processes and algorithms. This course is heavy in implementation of various manufacturing technologies and programming of NC machines. Pre-requisites: Engineering 111, Physics 111, Mechanical Engineering 421.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 424
Advanced CAM & Automation.
This course teaches students to simulate advanced manufacturing processes by learning high level functions in Pro-Engineer/Pro-Manufacturing software package. This course will cover the topics of some advanced and special manufacturing technologies, including laser cutting & welding, water jet cutting & cleaning, and plasma cutting & welding. Automation related topics will also be introduced, including the analysis and application of PLC control systems in manufacturing facilities and modern production systems. Several advanced and real projects will help students to be proficient in using this CAD/CAM package and learn more of US industrial & engineering knowledge through the instructor’s lectures & guidance and also the students’ self-motivated work.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 429 (MEEG 429/EEG 429)
Electronics Cooling
This course is designed to help students understand the thermal challenges and demands of the electronics field. Fundamentals and physics of thermodynamics, heat transfer and fluid mechanics will be introduced and shown how to apply them to the design and testing of electronic hardware. The thermal characteristics and thermal failure modes of electronic components, and reliability prediction techniques will be reviewed. Numerical simulation and commercial CFD packages will be introduced for thermal analysis. Students will have a good understanding of the heat transfer and fluid mechanics principles affecting proper thermal management of electronic components and develop skills to identify potential thermal design problems and develop reliable, cost-effective solutions.
3 semester hours

MECHANICAL ENGINEERING 430
Design & Innovation
The objective of this course is to convey a sense of Design and Innovation in the development of products. To accomplish this the class shall review a number of case studies and participate in the design of a project. In addition to the semester project we shall discuss a number of topics of concern to Design and Engineering through illustrated talks (slides/tapes) and when available with guest designers and engineers. Pre-requisites: Engineering 111, Engineering 300.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 431
Mechanical Engineering 315 or equivalent.
Mechanical Engineering 432
Advanced Dynamics
Introduction to the dynamics of particles and rigid bodies. Virtual work and generalized coordinates. Lagrange’s equations and Hamilton’s principle for holonomic and non-holonomic systems. Euler coordinate transformations. Particle kinematics in inertial and noninertial rotating coordinate systems.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 433
Finite Element Methods in Mechanical Engineering
Formulation of finite element characteristics using energy methods. Convergence criteria. Consistent load and mass matrices. In-plane and axisymmetric analysis using simple and higher-order triangular and quadrilateral elements. Finite element analysis of plate-bending problems. Isoparametric concepts and formulation; applications to two-and three-dimensional stress analysis. Topics from the following areas will be chosen as time allows: buckling and vibration studies using discrete element techniques; finite element applications in fluid flow and heat transfer. Pre-requisite: Mechanical Engineering 450 or permission of instructor. Pre-requisites: Basic Structural Mechanics, Math 214, Math 215, Engineering 111 or consent of instructor.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 434
Advanced Dynamics
Orthogonal coordinate systems and their transformations. Particle kinematics in inertial and noninertial rotating coordinate systems. Dynamics of systems of particles and rigid bodies. Virtual work and generalized coordinates. Lagrange’s equations and Hamilton’s principle for holonomic and non-holonomic systems with applications. Lagrange multipliers. Pre-requisites: Undergraduate Dynamics, Mathematics 301.
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 435
Mechanics of Composite Materials
3 lecture hours; 3 semester hours

MECHANICAL ENGINEERING 436
Fatigue and Fracture Mechanics
Brittle fracture of structures, elastic stress anal-
Computational fluid dynamics (CFD) is employed in a wide range of industries and disciplines, such as aerospace engineering, automotive engineering, biomedical science and engineering, chemical engineering, civil engineering, power engineering and sports engineering. Practicing engineers are constantly facing complex fluid flow and heat transfer problems using commercial CFD software. To avoid flawed CFD simulation and results interpretation using commercial CFD packages by users with inadequate training, understanding the fundamental principles that underlie commercial CFD solvers can help the users to effectively harness the power of modern CFD for their research or design. This course is intended as an introduction to the scientific principles and practical engineering applications of CFD. It combines lectures on the CFD principles with projects of research or industrial applications. The emphasis of this course is not to teach the theory behind the CFD techniques, but to help the students apply the knowledge gained into practical use of commercial CFD software (COMSOL, ANSYS and/or STAR-CCM+).

Students will apply these skills to relevant engineering problems and projects of research or industrial applications of CFD. It combines lectures on the CFD principles with projects of research or industrial applications. The emphasis of this course is not to teach the theory behind the CFD techniques, but to help the students apply the knowledge gained into practical use of commercial CFD software (COMSOL, ANSYS and/or STAR-CCM+).

Students will apply these skills to relevant engineering applications and gain an appreciation of the limitations and advantages of CFD modeling.

Composite materials are ideal for structural applications where high strength-to-weight and stiffness-to-weight ratios are required. Aircraft and spacecraft are typical weight sensitive structures in which composite materials cost-effective. Usually, composite materials consist of two separate components, the matrix and the filler. The matrix is the component that holds the filler together and the filler makes the material strong. Most aerospace-application composites have strong, stiff long fibers as the fillers. The fiber makes the material behaves differently in different directions. This anisotropic behavior introduces complications in the analysis of the composite material. The course introduces the student to the basic concepts of the mechanical behavior of composite materials. Specific topics include the stress-strain relation for a lamina, micromechanics of composite materials, bending, buckling, and vibration of composite plates with various laminations, fatigue, fracture mechanics, and joints of composite structures.

This course introduces the CNC milling machine to students. Included are machine and shop safety, CNC coding, material selection, machine maintenance, proper use of the coolant systems and tools. Routine machine procedures and implementation are covered in preparation for several machine operations to develop student skills.

This anisotropic behavior introduces complications in the analysis of the composite material. The course introduces the student to the basic concepts of the mechanical behavior of composite materials. Specific topics include the stress-strain relation for a lamina, micromechanics of composite materials, bending, buckling, and vibration of composite plates with various laminations, fatigue, fracture mechanics, and joints of composite structures.
knowledge of welding engineering and its application in developing and designing safe and durable welded structures.

3 semester hours

MECHANICAL ENGINEERING 572
Production Technology and Techniques
This course will focus on the process of developing creative solutions to issues in production technology and techniques. The topics cover the concepts of production layout, production processes, quality assurance and control, principles of manufacturing processes, and technology’s role in assisting manufacturing processes in today’s US industries. Two formal projects are assigned regarding the latest technologies in production that are used to support business products. The target of this class is to help students obtain a basic knowledge in production technologies and techniques, and help students get ready to face the challenging industrial and engineering job market. Prerequisites: Engineering 111, Engineering 300.

3 semester hours

MECHANICAL ENGINEERING 573
Supply Chain Management
The goal of this course is to cover not only high-level supply chain strategy and concepts, but also to give students a solid understanding of the analytical tools, to understand supply chain design, planning, and operation driven the performance of a firm. It also conveys how supply chain drivers used on a conceptual level during supply chain design and operation leading to performance improvement.

3 credits with 14 sessions

MECHANICAL ENGINEERING 574
Principles of Logistics
This course presents materials management, logistics theory and concepts in today’s manufacturing and commercial environments. It integrates all of the functional areas of the business as well as incorporating logistics into corporate operation. They are examined in light of how they interrelate with other functions for the firms. Prerequisites: Engineering 111, Engineering 300.

3 semester hours

MECHANICAL ENGINEERING 575
Manufacturing Strategy
This course provides the necessary strategic perspective for manufacturing managers’ sights and sustaining manufacturing excellence in the competitive manufacturing environment. The strategic perspective of manufacturing forms that the approach places these issues within the rightful context. It emphasizes the essential requirement to link with other functions in order to determine the best strategies for the business as a whole.

3 lecture hours, 3 semester hours

MECHANICAL ENGINEERING 597 A
Master’s Project
Lecture hours and topics to be arranged with Department Chair.
1 credit hour

MECHANICAL ENGINEERING 597 B
Master’s Project
Lecture hours and topics to be arranged with Department Chair.
2 credit hours

MECHANICAL ENGINEERING 597 C
Master’s Project (completion)
Lecture hours and topics to be arranged with Department Chair.
1 credit hour

MECHANICAL ENGINEERING 598
Thesis in Mechanical Engineering
Lecture hours, semester hours and topics to be arranged.
3-6 semester hours

MECHANICAL ENGINEERING 599
Independent Study in Mechanical Engineering
Independent study of advanced topics in Mechanical Engineering and submission of project report as required. Problem assignment to be arranged with and approved by the Department Chair.
3 semester hours

BAScIc ScIenCeS 511
Anatomy I
This course provides an in depth study of the macroscopic human anatomy and it covers the structure of the trunk and posterior neck. Clinical aspects of the vascular and neurological relationships of these regions will be emphasized. Instruction includes lectures and laboratories with the dissection of human cadavers and the study of bones, models and interactive multimedia software.

4 lecture hours, 3 laboratory hours; 5.5 semester credits

BAScIc ScIenCeS 512
Histology
This course is the study of the normal microscopic anatomy of the body and its relationship to function at the cellular, tissue, and organ level. Included is the study of the microstructure of epithelia, connective tissue, muscle, nervous system, digestive system, circulatory, reproductive systems and the endocrine system. Where indicated, there is an integration of normal histology with physiological and clinical concepts.

2 lecture hours, 2 laboratory hour; 3 semester credits

BAScIc ScIenCeS 513
Embryology
This course covers the developmental process of humans from conception to birth including the formation of tissues, organs and systems of the body, integrating histology and anatomy.

1 lecture hours; 1 semester credits

BAScIc ScIenCeS 514
Biochemistry I
The biochemistry I lecture/lab series introduces the student to the fundamentals of protein structure, DNA replication, gene expression, transcription, and translation. Laboratory exercises require the student to apply information acquired in lecture to basic science and clinically oriented problems that are frequently encountered in practice.

2 lecture hours, 1 laboratory hour; 2.5 semester credits

BAScIc ScIenCeS 515
Physiology I
This course is the study of physiology at the molecular and cellular level. Included is the study of the function of all major tissues and organ systems. Clinical concepts and correlations are discussed.

3 lecture hours, 2 laboratory hours; 4 semester credits

BAScIc ScIenCeS 521
Anatomy II
This course is a continuation of Anatomy I and it covers the structure of the head, anterior neck and extremities. Clinical aspects of the neurological and vascular relationships of these regions will be emphasized. Instruction includes lectures and laboratories with the dis-
functions and parcellation of function in the cerebral cortex. Prerequisite: NBS511, NBS512
2 lecture hours; 2 semester credits

BASIC SCIENCES 529
Biomedical Integration Lab I
This course integrates the concepts of anatomy, physiology, biochemistry, and histology in a case-based format.
4 laboratory hours; 2 semester credits

BASIC SCIENCES 530
Biomedical Integration Lab II
This course is a continuation of NBS 529 Biomedical Integration Lab I. This course integrates anatomy, physiology, biochemistry, and histology in a case-based format. Prerequisites: NBS511, NBS512, NBS514, NBS515.
4 laboratory hours; 2 semester credits

Botanical Medicine

BOTANICAL MEDICINE 511
Botanical Pharmacy Lab
This course introduces the history, identification, plant taxonomy, and nomenclature of medicinal plants used by the Naturopathic Physician, while providing practical experience in the preparation and extraction of botanical medicines.
1 laboratory hour; 0.5 semester credit

BOTANICAL MEDICINE 521
Phytopharmacognosy
This course is an overview of biochemical plant constituents, their interactions, energetics and synergy. Indications and contraindications of applications as well as drug/herb/supplement interactions are explored.
1.5 lecture hours; 1.5 semester credits

BOTANICAL MEDICINE 611
Botanical Medicine I
This course comprises a detailed survey of plants and plant preparations used in naturopathic practice, integrating traditional herbal knowledge with modern pharmacological research. The botany and ethnobotany, pharmacodynamics, phytochemistry, toxicology, and therapeutics of each plant are considered. Prerequisites: NBM511, NBM521, NBS524, NBS525.
2 lecture hours; 2 semester credits

BOTANICAL MEDICINE 621
Botanical Medicine II
This course is a continuation of Botanical Medicine I. Prerequisite: NBM611.
2 lecture hours; 2 semester credits

BOTANICAL MEDICINE 711
Botanical Medicine III
This course covers advanced topics in botanical medicine, including materia medica, clinical applications, and current research. Prerequisite: NBM621.
2 lecture hours; 2 semester credits

Clinical Nutrition

NUTRITION 611
Nutrition I
This course provides the foundation for therapeutic nutrition. It explores the biochemistry of the macronutrients as well as the known vitamins and minerals in detail. Toxicities, deficiencies, therapeutic uses and appropriate doses are examined. Dietary requirements for micro and macro nutrients are covered. Prerequisites: NBS524, NBS525
2 lecture hours; 2 semester credits

NUTRITION 621
Nutrition II
This course is a continuation of Nutrition I. Prerequisite: NNT611.
2 lecture hours; 2 semester credits

NUTRITION 711
Nutrition III
This course builds on previous nutrition courses, biochemistry, and research methods to focus on how to safely and effectively use vitamins, minerals, amino acids and other nutrients to improve health and address disease. Drug-nutrient interactions, nutrient-nutrient interactions, and food nutrient interactions are learned, as well as, how to apply naturopathic principles to therapeutic prescription of nutrients. Prerequisites: NNT621, NCS621
2 lecture hours; 2 semester credits

NUTRITION 721
Nutrition IV
This course builds on previous nutrition courses and focuses on the use of food as medicine and therapeutic diets and clinical nutrition. Students will be expected to synthesize knowledge from biochemistry and basic nutrition for application to clinical conditions and lifespan issues. This class also explores current research and trends in nutrition and socioeconomic and cultural aspects related to food and diet therapy. Prerequisite: NNT711.
2 lecture hours; 2 semester credits
Naturopathic Medicine

**Clinical Sciences**

**CLINICAL SCIENCES 611**

**Introduction to Pathology**

The pathology I lecture/lab series introduces the student to the fundamental basis of disease by studying pathophysiology on both cellular and genetic scales. Such studies include cell death and adaptation, inflammation, tissue regeneration and fibrosis, hemodynamic disorders, neoplasia, genetic diseases, and infectious disease. Each pathophysiologic process studied is placed in a clinical context by reviewing associated physical, radiographic, gross, and microscopic findings. Laboratory exercises require students to apply information acquired in lecture to various clinical scenarios that are more frequently encountered in practice. The course concludes with the beginning of the study of diseases by organ system. Prerequisites: NBS512, NBS513, NBS521, NBS522, NBS524, NBS525, NBS526

3 lecture hours, 2 laboratory hours; 4 semester credits

**CLINICAL SCIENCES 612**

**Clinical, Physical and Laboratory Diagnosis I**

This course applies the knowledge of pathology, physical exam, and laboratory testing to develop the skills necessary to determine appropriate diagnoses for patients manifesting the signs and symptoms of disease. The material is covered for each organ system with an emphasis on the integration of information from multiple systems. Prerequisites: NBS512, NBS513, B5S21, B5S22, B5S24, B5S25, NBS526

6 lecture hours, 6 semester credits

**CLINICAL SCIENCES 613L**

**Laboratory Diagnosis Lab I**

In this course students learn to do in-office laboratory procedures including venipuncture. Co-requisite: NCS 612.

1 laboratory hours, 0.5 semester credit

**CLINICAL SCIENCES 616**

**Immunology**

This course covers specific and non-specific components of the human immune system and the role played by each in protection from microbes and non-living agents. Hyper-sensitivity reactions, immunodeficiency, autoimmune diseases, immune responses to cancer and psychoneuro-immunology are also discussed. Prerequisites: NBS525, NBS522

2 lecture hours, 2 semester credits

**CLINICAL SCIENCES 617**

**Medical Genetics**

This course covers the basis, diagnosis, and transmission of chromosomal and genetic disorders. The role of genetics and disease and the prenatal diagnosis of genetic and chromosomal abnormalities are discussed. Emphasis is placed on preparing students to recognize potential genetic abnormalities in a clinical setting, on methodologies to educate and inform patients on the genetic basis of their particular disease, and provide information on the resources available for additional testing, treatment and/or counseling. Prerequisites: NBS515, NBS521, NBS525

1 lecture hour, 1 semester credit

**CLINICAL SCIENCES 619**

**Diagnostic Imaging**

This course covers radiographic anatomy and imaging techniques. A basic introduction to imaging, including radiography, computer tomography (CT), magnetic resonance imaging (MRI), ultrasound, and bone scan (scintigraphy) is discussed. The basic concepts of these techniques and their use in diagnosis are discussed. This course will also cover basic radiographic anatomy of the skeletal system and viscera. Co-requisites: NCS611.

2 lecture hours, 2 semester credits

**CLINICAL SCIENCES 621**

**Pathology and Diagnostic Imaging**

The pathology II lecture/lab series is a continuation from Pathology I of the study of diseases in each organ system and the effects on multiple organs systems. Each pathophysiologic process studied is placed in a clinical context by reviewing associated physical, radiographic, gross, and microscopic findings. Pathology laboratory exercises require students to apply information acquired in lecture to various clinical scenarios that are more frequently encountered in practice. Prerequisite: NCS611.

2 lecture hours, 2 semester credits

**CLINICAL SCIENCES 622**

**Clinical, Physical and Laboratory Diagnosis II**

This course is a continuation of Clinical Diagnosis I. Prerequisite: NCS612.

6 lecture hours, 6 semester credits

**CLINICAL SCIENCES 622L**

**Physical Examination Lab II**

This course is a continuation of Physical Examination I. Students complete the process of learning physical examination skills for all systems of the human body. Co-requisite NCS622

2 laboratory hours, 1 semester credit

**CLINICAL SCIENCES 623L**

**Laboratory Diagnosis Lab II**

This course is a continuation of Laboratory Diagnosis Lab II. Co-requisite: NCS 622.

1 laboratory hours, 0.5 semester credit

**CLINICAL SCIENCES 714**

**Clinical Forum I**

These courses explore the clinical applications of the basic sciences and the clinical courses taught concurrently in this semester. Case presentations and clinical skills are emphasized through a problem based learning format using naturopathic principles as the foundation.

2 laboratory hours, 1 semester credit

**CLINICAL SCIENCES 715**

**Emergency Procedures**

This course familiarizes the students with emergency situations and procedures that may be seen in the Emergency Department or private practice. Students learn to discern emergent presentations by review of clinical scenarios and are able to elicit a history and physical exam to appropriately refer or treat the patient within the confines of their scope of practice.

2 lecture hours, 2 semester credits

**CLINICAL SCIENCES 721**

**Pharmacology I**

Dose response relationships, pharmacokinetics, pharmacodynamics, pharmacogenetics, drug toxicity, signal transduction and second messengers are covered. Drug interactions, indications/contraindications, food/herb inter-
Naturopathic Medicine

actions are discussed. The pharmacology and toxicology of the drugs of the nervous, respiratory and cardiovascular systems are examined. Prerequisites: BS515, 525, 514, 524
2 lecture hours, 2 semester credits

CLINICAL SCIENCES 723
Clinical Forum II
This course is a continuation of Clinical Forum I. It explores the clinical applications of the basic sciences and the clinical courses taught concurrently in this semester. Case presentations and clinical skills are emphasized through a problem based learning format using naturopathic principles as the foundation.
2 laboratory hours; 2 semester credits

CLINICAL SCIENCES 811
Pharmacology II
This course, a continuation from Pharmacology I, examines the most common pharmaceutical agents in clinical practice and the ones most likely to be encountered in a clinical setting in general practice. It reviews antibiotics, antimicrobials, both steroidal and non-steroidal, anti-inflammatory agents, chemo- therapeutic agents, hormones, and commonly prescribed medications. Prerequisite: CS721.
2 lecture hour; 2 semester credits

CLINICAL SCIENCES 812
Environmental Medicine
This course focuses on the health effects of pollutants in the home, workplace as well as in the air, water, earth, and food supply. Diagnosis and treatment of health conditions caused by these pollutants is covered with special emphasis on treating the chemically sensitive patient or those with environmental illness. Prerequisites: CS 621, 622
1.5 lecture hours; 1.5 semester credits

Naturopathic Obstetrics

NATUROPATHIC OBSTETRICS 811
Obstetrics
This course addresses itself to health care appropriate to the special circumstances of pregnancy. Topics covered include diagnosis of pregnancy, pre-natal care, therapeutics for early pregnancy, management of minor complaints of pregnancy, infertility, an overview of normal fetal development, labor and birth, and the post-partum care of mothers and infants. Prerequisites: CS622, CS623.
2 lecture hours, 2 semester credits

Naturopathic Practice/Organ Systems

NATUROPATHIC PRACTICE 712
Generative Medicine I (Elective)
This course examines the basics of complexity theory and systems biology as applied to naturopathic strategies, in particular the vis medicatrix naturae.
1 lecture hour; 1 semester credit

NATUROPATHIC PRACTICE 713
Gastroenterology
This course examines the digestive tract and associated organs, and disorders associated with it. Physical examination, imaging, and laboratory techniques necessary to understand and diagnose these disorders are discussed along with their naturopathic treatment. Prerequisites: CS 611, 612, 613, 621, 622, 623.
2 lecture hours; 2 semester credits

NATUROPATHIC PRACTICE 714
Gynecology
This course synthesizes concepts of female anatomy, physiology, and pathophysiology and applies them to clinical conditions. Physical exam, laboratory and diagnostic evaluation, and clinical diagnosis are presented for major clinical conditions. Naturopathic treatment of commonly encountered gynecological issues is included. Prerequisite: CS 611,612, 621, 622.
2 lecture hours; 2 semester credits

NATUROPATHIC PRACTICE 721
Pediatrics
Upon completion of this course the student will be able to recognize and diagnose the conditions of the pediatric patient encountered in a general naturopathic practice. Naturopathic therapy and management of these disorders are discussed along with the appropriate use of referral. Prerequisites: CS 611, 612, 613, 621, 622, 623.
2 lecture hours; 2 semester credits

NATUROPATHIC PRACTICE 722
Cardiology
This course covers the pathophysiology, advanced diagnosis and treatment of cardiovascular diseases. Both conventional and naturopathic therapies are covered, and upon completion students will be able to understand and apply this knowledge to the care of patients with cardiac disease and know when to refer for specialized diagnosis and treatment. Prerequisites: CS 611, 612, 613, 621, 622, 623.
2 lecture hours; 2 semester credits

NATUROPATHIC PRACTICE 725L
Gynecology Lab
Physical examination practicum relevant to gynecology, including breast and pelvic exams. Prerequisite NNP714.
1 laboratory credit; 0.5 semester credit

NATUROPATHIC PRACTICE 811
Eye, Ear, Nose and Throat
The diagnosis and naturopathic and allopathic treatment of diseases of the eyes, ears, nose, and throat are discussed. Upon completion of this course students will be able to diagnose common and important diseases, know when to refer patients for specialty diagnosis and treatment, and will be able to apply naturopathic principles and modalities in case management. Prerequisites: CS 611, 612, 613, 621, 622, 623.
0.5 lecture hours, 0.5 laboratory hours; 0.75 semester credit

NATUROPATHIC PRACTICE 812
Endocrinology
This course covers the diagnosis and naturopathic and conventional management of diseases and imbalances of the endocrine system. Upon completion, students will be able to recognize and diagnose hormonal disorders, know when to refer patients for specialty diagnosis and treatment, and be able to apply naturopathic principles and modalities in endocrine case management. Prerequisites: CS 611, 612, 613, 621, 622, 623.
2 lecture hours; 2 semester credits

NATUROPATHIC PRACTICE 813
Neurology
This course constitutes a review of the neurological exam with emphasis on diagnosis of neurological conditions. It will include naturopathic treatment and management of diseases of the nervous system as they are discussed. Prerequisites: CS 611, 612, 613, 621, 622, 623; BS 525.
1.5 lecture hours; 1.5 semester credits

NATUROPATHIC PRACTICE 814
Urology/Proctology
This course covers disorders of the urinary system, male genitalia, and the anal-rectal region. Diagnosis and conventional and naturopathic management of cases are covered. Prerequisites: CS 611, 612, 613, 621, 622, 623.
1 lecture hour, 1 semester credit
Naturopathic Medicine

NATUROPATHIC PRACTICE 821
Geriatrics
This course covers the aging process and the new field of anti-Aging medicine. Conventional geriatrics topics are discussed as well as topics on geriatric illnesses and their Naturopathic interventions. Prerequisites: CS 611, 612, 613, 621, 622, 623.
1 lecture hour, 1 semester credit

NATUROPATHIC PRACTICE 823
Oncology
This course covers the diagnostic, prognostic and preventative and epidemiological information for common cancers. Various theories of cancer are discussed as well as both conventional and non-conventional treatments. Case studies are used to help cement the concepts covered in relation to various malignancies. At the conclusion of this course students will be prepared to screen for common cancers and co-manage patients with cancer. Prerequisites: CS 611, 612, 613, 621, 622, 623.
1.5 lecture hours, 1.5 semester credits

NATUROPATHIC PRACTICE 824
Dermatology
The diagnosis and treatment of diseases, which manifest in skin lesions are discussed. Naturopathic treatment and prevention are taught. Prerequisites: CS 611, 612, 613, 621, 622, 623.
1.5 lecture hours, 1.5 semester credits

NATUROPATHIC PRACTICE 825
Minor Surgery
Minor surgical procedures as defined by the scope of practice for naturopathic physicians are taught. The course covers common minor surgery office procedures such as suturing techniques, wound care, local anesthesia, and bandaging techniques. Topics also include recognizing and treating infection, burns, and conditions requiring referral for surgical intervention. Prerequisites: CS622.
1.5 lecture hours, 1 laboratory hour, 2 semester credits

Naturopathic Principles and Practice

PRINCIPLES AND PRACTICE 511
History of Naturopathic Medicine
This course will examine the historical, socioeconomic, and political foundations of Naturopathic Medicine and its eclectic blend of healing arts and fundamental roots; Botanical Medicine, Nature Cure, Physical medicine, Hydrotherapy, Homeopathy, Energy Medicine, and Ancient Healing systems from around the globe.
2 lecture hours, 2 semester credits

PRINCIPLES AND PRACTICE 512
Philosophy of Naturopathic Medicine I
This course will explore the philosophical foundations of naturopathic medicine, which form the basis for therapeutic intervention. Vitalistic medicine in the United States of America as an influence on the creation of the naturopathic profession will be discussed. The overall emphasis of the course will be on the philosophical principles that define the empirical “natural laws” which describe the phenomenon of healing. The relationship of naturopathic principles to medical science is included.
1 lecture hour, 1 semester credit

PRINCIPLES AND PRACTICE 621
Introduction to Biochemical Individuality
This course introduces the naturopathic student to the basics of personalized medicine and nutrigenomics.

PRINCIPLES AND PRACTICE 711
Practice Management I
Students are taught the current procedural practices for the operation of a private practice. In addition, the practical aspects of operating a practice as a small business are discussed. Students are encouraged to begin thinking about their personal career path in naturopathic medicine. Prerequisites: CS 611, 612, 613, 621, 622, 623.
1 lecture hour, 1 semester hour

PRINCIPLES AND PRACTICE 722
Philosophy of Naturopathic Medicine II
Nature acts powerfully through healing mechanisms in the body and mind to maintain and restore health. Students will receive a more in-depth utilization of naturopathic methods and medicinal substances, which work in harmony with the human system, thus facilitating long-lasting health and recovery. In addition to employing various natural medicines, students will gain an important perspective of the vital force and its role in the healing process, when used in conjunction with naturopathic principles. Prerequisite: PP512.
1 lecture hour, 1 semester credit

PRINCIPLES AND PRACTICE 821
Medical Jurisprudence and Ethics
This course covers the basics of law as it applies to medical practice. Informed consent, confidentiality and professional liability are discussed. Naturopathic licensing laws in various jurisdictions are contrasted and compared along with an in depth review of the practice act in Connecticut. Prerequisite: PP512.
1 lecture hour, 1 semester hour

PRINCIPLES AND PRACTICE 822
Practice Management II
This course introduces the student to the business procedures and practice used in the successful operating of a naturopathic practice. Prerequisite: PP721.
1.5 lecture hours, 1.5 semester credits

NATUROPATHIC PRACTICE 828
Generative Medicine II (Elective)
This survey course introduces the naturopathic student to the basics of generative medicine as envisioned and practiced at the Center of Excellent in Generative Medicine. Topics include: Advanced network theory, generative molecular biology, computational medicine, information theory and bioinformatics.
1 lecture hour, 1 semester credit

Homeopathic Medicine

HOMEOPATHIC MEDICINE 621
Homeopathy I
This course lays the foundation of the basics laws and principles of Homeopathy upon which future courses will build. The principles as set forth by Hahnemann in his Organon are the bases of the course. The student will also become thoroughly acquainted with the use of Kent's repertory.
2 lecture hours, 2 semester credits

HOMEOPATHIC MEDICINE 711
Homeopathy II
This course will continue the examination of Homeopathy, with emphasis on the concept of acute prescribing, case taking, and analysis. Students will continue their discussion and understanding of the drug pictures of the remedies for acute complaints commonly seen in general or family practice. Prerequisite: NHM621.
2 lecture hours, 2 semester credits

HOMEOPATHIC MEDICINE 721
Homeopathy III
Students will continue their study of the hierarchy of symptoms as they are expressed in the repertory and will begin to recognize the

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Naturopathic Medicine

Physical Medicine

PHYSICAL MEDICINE 521
Hydrotherapy
This course introduces students to the physiological principles and clinical applications of the therapeutic use of water, heat, and cold. In the laboratory portion of this course, students learn procedures by administering and receiving treatments and determining appropriate applications. Prerequisites: BS521.
1 lecture hour; 1.5 laboratory hours; 1.75 semester credits

PHYSICAL MEDICINE 522
Living Anatomy: Palpation
This laboratory course introduces how to locate and palpate the bony landmarks, attachments/origins, and the superficial musculature of the entire body. It is an adjunct to the Anatomy courses and a precursor to the courses in physical medicine.
1.5 laboratory hours; 0.75 semester credits

PHYSICAL MEDICINE 612
Physiological Therapeutics
This course covers the physics, clinical, and contraindications of the use of heat, cold, high-volt galvanism, interferential current, low-volt galvanism, ultrasound, electrical muscle stimulation, diathermy, and paraffin. Upon completion, students will be able to use these modalities both individually and in conjunction with other therapies in the treatment of musculoskeletal and other disorders. Prerequisites: BS 511, 515, 521, 525.
1 lecture hour; 2 laboratory hours; 2 semester credits

PHYSICAL MEDICINE 621
Orthopedic Assessment
Students in this course will learn to diagnose orthopedic injuries and diseases. Those conditions that can be safely treated in a general practice setting are distinguished from those requiring referral to a specialist. Prerequisite: BS 511, 515, 521, 525.
1 lecture hour; 2 laboratory hours; 2 semester credits

PHYSICAL MEDICINE 711
Naturopathic Manipulative Therapeutics I
This course will be a basic presentation of the principles and practices of manipulation of the axial spine. Lecture will include discussion of the neurological rationale for manipulation, as well as, various methods of manipulation both force and non-force techniques. Soft tissues techniques such as Post-isometric Relaxation Technique and Positional Release Technique will be discussed and taught in lab. Palpation, neurological and orthopedic evaluation will be performed prior to any manipulative procedures. Prerequisites: PM 621.
2 lecture hours; 4 laboratory hours; 4 semester credits

PHYSICAL MEDICINE 721
Naturopathic Manipulative Therapeutics II
This course will extend NPM711 by introducing principles and biomechanics of extremities as well as gait analysis. Non-force techniques such as Sacral-Occipital Technique(SOT) and Cranial-Sacral Techniques will be reviewed. Prerequisites: PM711.
2 lecture hours; 4 laboratory hours; 4 semester credits

PHYSICAL MEDICINE 821
Therapeutic Exercise/Sports Medicine
This course provides an overview of exercise as a preventative and therapeutic tool. Students will learn to perform a fitness assessment and describe and monitor exercise programs for persons with a variety of common disease conditions as well as treatments for sports injuries. Prerequisite: PM721.
2 lecture hours; 2 semester credits

Psychology

PSYCHOLOGY 501
Counseling Skills I
This course provides an introduction to developing the naturopathic practitioner/patient relationship via the development of communication skills. Professional issues such as ethics, confidentiality, trust, appropriate boundaries, and relationship building are included. Specific communication skills related to effective patient interviewing are practiced experimentally using exercises in class. Students practice the skills of attending, empathy, active listening, and focusing on important client concerns to identify and begin collaborative goal setting.
1 lecture hour; 1 laboratory hour; 1.5 semester credits

PSYCHOLOGY 511
Physician Heal Thyself
This course highlights the importance of self-reflection and self-care for those training to be Naturopathic Physicians. Students will explore the multidimensional aspects of health,

keynote symptoms of polycrest remedies and be able to distinguish among them. Computer repertorization is used throughout to illustrate the relative values of possible rubrics to include in a given case. Prerequisite: NHM711
2 lecture hours, 2semester credits

HOMEOPATHIC MEDICINE 821
HOMEOPATHY IV
This course focuses on case taking and analysis in chronic case management. The patient's level of health and inherited patterns of disease are taken into consideration. Re-analysis of cases for the second prescription is covered. The student's knowledge of materia medica is reinforced through remedy comparisons in the process of remedy selection. Prerequisite: NHM721
2 lecture hours, 2semester credits

Traditional Chinese Medicine

TRADITIONAL CHINESE MEDICINE 511
TCM Theory
This course introduces the fundamental philosophy, diagnostic techniques and therapeutic techniques Traditional Chinese Medicine (“TCM”). The purpose of the course is to allow the student to integrate the basic philosophical concepts of TCM into naturopathic practice. This includes applying TCM principles and medical philosophy to the human body; having a basic appreciation for relationships between the TCM zangfu (“organs”); and having a fundamental understanding of the TCM modes of diagnosis, as found in the “Four Examinations” and “Eight Principles” including pulse, tongue, facial, palpation, and questioning techniques. The basic tenets of clean needle technique and safe needle insertion as they relate to acupuncture and moxibustion will also be covered.
2 lecture hours; 2 semester hours

TRADITIONAL CHINESE MEDICINE 521
TCM Diagnosis I
This course is a continuation of Traditional Chinese Medicine Theory. Prerequisite: TMC 511
2 lecture hours, 2 semester hours

Further study in OM may be taken through the Acupuncture Institute. Refer to the catalog section on Acupuncture.
Naturopathic Medicine

the impact of stress on health, and effective strategies and tools for managing stress and attending to one’s health in a truly holistic manner. Introspective work and in-class discussions and exercises will be done.

1 laboratory hour; 0.5 semester credit

PSYCHOLOGY 621
Psychological Assessment
This course covers the diagnosis of psychiatric disorders according to the Diagnostic and Statistical Manual of Mental Disorders IV. Included is the development of the DSM, psychological assessment considerations, referral options, and treatment modalities including psychotherapeutic, psychotropic, and alternative interventions. Special attention is paid to addictions and eating disorders. Prerequisite: PS521.

2 lecture hours, 2 semester credits

PSYCHOLOGY 711
Counseling Skills II
This course introduces current holistic counseling theories and inventions through lectures, assignments, readings, and experiential exercises. Counseling skills with reference to actual cases are explored using problem-based learning methods. Students will demonstrate basic interviewing techniques and strategies for engaging and motivating the client through reciprocal dialogue during the developmental stages of a counseling relationship. This course emphasizes the basic counseling skills required of a physician in daily practice, in addition to the special circumstances of bereavement, crisis management, and chronic and terminal illness. Prerequisites: PS521, 621.

1 lecture hour; 1 laboratory hour; 1.5 semester credits

PSYCHOLOGY 813
Mind-Body Medicine
This course covers key issues in the relationship between a physician and client. It includes an examination of ethical issues, confidentiality, and development of trust, setting appropriate boundaries, and dealing with patients with life-threatening illnesses. Prerequisites: PS521, 621.

1 lecture hour; 1 semester credit

Research

RESEARCH 511
Research
This course introduces students to biomedical research principles, epidemiology, biostatistics, and accessing the medical literature with an emphasis on complementary and alternative medicine research.

2 lecture hours; 2 semester credits

RESEARCH 711
Thesis I
In this course the student performs a literature search in a naturopathic area of interest and presents a proposal for a Senior Paper (literature survey only) or a Senior Research Papers (also includes original research) that must be approved by the Research Committee.

1 lecture hour; 1 semester credit

RESEARCH 811
Thesis II
With the advice and guidance of the faculty research advisor, the student completes a Senior Paper in conformity with the guidelines adopted by the Research Committee. Prerequisite: RS711.

1 lecture hour; 1 semester credit

Clinical Education

CLINICAL EDUCATION 621
Clinical Entry
This course provides an introduction to clinic policy, procedures and requirements, including standard operation procedures, and the roles and responsibilities of the student clinician as stated in the current Clinic Student Handbook. There is an overview of case management issues, charting and lab procedures. The class prepares students for entry into the clinic. Prerequisite: Completion of all year 1 & 2-year courses concurrent with the completion of this course.

1 semester hour; 1 semester credit

Cardio-Pulmonary Resuscitation (CPR) - Prior to entering the clinic, it is the student’s responsibility to obtain certification in CPR for the Health Care Professional. A list of training sites will be available.

CLINICAL EDUCATION 712
Clinical Education I
Students begin to gain practical clinical skills by working under the supervision of licensed naturopathic physicians and other healthcare providers in the Clinic and in Preceptorships. Students learn primarily through observation and are given limited responsibility in the clinical setting during this semester. Performance objectives are focused on basic clinical procedures. Prerequisite: NCE 621 and Clinic Entrance Exam. Course runs May – Dec.

16 laboratory hours; 8 semester credits

CLINICAL EDUCATION 722
Clinical Education II
This is a continuation of the clinical training begun in Clinical Education I and includes the ongoing development of clinical skills and case management under supervision of licensed physicians. Students gradually assume increased responsibility as secondary caregivers under the supervision of licensed physicians. Prerequisite: NCE 712 Course runs Jan – May.

16 laboratory hours; 8 semester credits

CLINICAL EDUCATION 812
Clinical Education III
Interns assume the role of primary care giver under the direct supervision of a licensed physician. Physical examination, diagnostic assessment and treatment skills are honed while specific performance objectives of clinical training are met. Minimum summer hours requirements must be met. Prerequisite: NCE 722 Course runs May – Dec.

20 laboratory hours; 10 semester credits

CLINICAL EDUCATION 822
Clinical Education IV
In this final semester of clinical training students examine, diagnose and treat patients in preparation for providing primary care as a naturopathic physician. 144 Preceptor hours must be completed. Prerequisite: NCE 812. Course runs Jan – May.

20 laboratory hours; 10 semester credits

Elective Courses

CLINICAL SCIENCES 8211
Practicum in IV Therapy (Elective)
The student will learn the indications and contraindications for various IV therapies in the naturopathic practice. Preparation and administration (including osmolality) of various IV solutions using proper aseptic techniques will be emphasized. Lectures will be followed by
hands-on in-class experience.
1 lecture hour; 1 laboratory hour; 1.5 semester credits

NATUROPATHIC PRACTICE 712
Generative Medicine I (Elective)
This course examines the basics of complexity theory and systems biology as applied to naturopathic strategies, in particular the vis medicatrix naturae.
1 lecture hour; 1 semester credit

NATUROPATHIC PRACTICE 828
Generative Medicine II (Elective)
This survey course introduces the naturopathic student to the basics of generative medicine as envisioned and practiced at the Center of Excellent in Generative Medicine. Topics include: Advanced network theory, generative molecular biology, computational medicine, information theory and bioinformatics.
1 lecture hour; 1 semester credit

Nutrition

Nutritional Science

The following nutritional science courses are offered only in the master’s program in Nutrition. This program is available on the main campus and online.

560 A Pathophysiologic Basis of Metabolic Disease
560 B Biochemistry of Nutrition
560 C Vitamins and Minerals
560 E Assessment of Nutritional Status
560 D Clinical Biochemistry
560 G Lifelong Healing with Food
560 H Developmental Nutrition
560 I Functional Medicine Nutrition
560 F Nutritional Therapeutics
560 M Evidence Based Nutrition
560 K Virtual Clinic
560 P Botanical Medicine

NUTRITION 560A
Path physiologic Basis of Metabolic Disease

A study of the underlying mechanisms of disease and the complex interrelationships between critical systems including respiratory, urinary, cardiovascular, digestive, nervous and endocrine. Lectures will include fluid and electrolyte imbalances, acid and base imbalances, inflammation, hypersensitivity, infection, necrosis, and neoplasms. The influence of various nutrients on systemic function will be stressed. Prerequisite: Anatomy & Physiology I, II, NUTR 560A, 560B, 560C, 560D, 560E, 560F, 560G, 560H, 560I,560J, 560M, 560P.
3 semester hours

NUTRITION 560B
Biochemistry of Nutrition

The course reviews the static and dynamic aspects of the biochemistry of carbohydrates, lipids, amino acids, proteins, nucleic acids, hormones and vitamins in the healthy individual. Cations, anions, enzyme kinetics, and integration and control mechanisms of the various metabolic pathways are discussed. Prerequisite 4 credits of Introduction to Biochemistry or 8 credit of Organic Chemistry.
4 semester hours

NUTRITION 560C
Vitamins and Minerals

The course covers the basic and clinical aspects of nutrient homeostasis with emphasis on vitamin and mineral metabolism at the cellular and tissue level. Lectures will include specific functions, requirements, sources, assay methods, and effects of deficiencies and excesses of vitamins and minerals. Prerequisite: Nutrition 560A and 560B.
3 semester hours

NUTRITION 560E
Assessment of Nutritional Status

Clinical and laboratory procedures for evaluation of nutrient status, including blood and other tissue analyses, principles of functional assessment, dietary records, questionnaires, case histories, physical examinations, and anthropometric methods are covered extensively. Prerequisite Nutr 560A and 560B.
3 semester hours

NUTRITION 560D
Clinical Biochemistry

The course encapsulates the biochemistry of disorders arising from acid/base imbalance and the abnormal metabolism of the carbohydrates, lipids, proteins, amino acids, nucleic acids, bile pigments, vitamins and hormones. Inherited disorders of metabolism, the role of enzyme performance in prognosis of biochemical dysfunctions and the meaning and interpretations of clinical laboratory findings both traditional and functional are discussed. Prerequisite Nutr 560A , B, C and E.
3 semester hours

NUTRITION 560G
Lifelong Healing with Food

This course will focus on the general knowledge and skills needed to educate nutrition clients about food to facilitate healing. It will teach the landscape of the US food system, menu and recipe planning, multiple food theories, fad and medical diets. Cultural and behavioral perspectives on nutrition will be addressed. Pre-requisite Nutr 560 A B C and E.
4 semester hours

NUTRITION 560H
Developmental Nutrition

Nutritional considerations and health-related concerns throughout the life cycle are explored. Pregnancy, lactation, fetal, infancy, childhood, and adolescent growth and development are addressed in detail, in this context. Also considered is the etiology of nutrition-related disorders of adulthood and the elderly. Prerequisites Nutr 560A, B, C, D and E.
3 semester hours

NUTRITION 560I
Functional Medicine Nutrition

This course will teach advanced biochemical assessment using critical analysis of client history with clinical testing from a functional medicine perspective. Functional lab testing will be evaluated in detail with case studies. Topics will be relevant to preventative as well as therapeutic nutrition care. Prerequisites Nutr 560A, B, C, D, E, G.
3 semester hours

NUTRITION 560F
Nutritional Therapeutics

This course will include an understanding of the mechanism of action of various nutritional interventions, as well as the role it can play in helping to restore wellness. Students will become familiar with common pharmaceutical treatments, and become aware of possible drug-nutrient interactions, as well as drug-induced nutrient depletions. Students will learn how to incorporate nutrition in a complimentary role with conventional treatments. This course will emphasize the importance of incorporating evidence based medicine into nutritional therapeutic decisions. Prerequisites Nutr 560A,B,C,D,E,G,H I.
4 semester hours

NUTRITION 560M
Evidence Based Nutrition.
(Must be taken in online format)

The course describes the analytical approach-
es for searching and interpreting clinical research data reported in the literature using evidence based practice with emphasis on the application of those data in clinical practice. Biological variation, experimental design, data and fact differences, matching analysis to design, integrity in analysis, and bias in design and analysis are considered in detail. Prerequisites Nutr 560A,B, C, and E.

3 semester hours

NUTRITION 560K
Virtual Clinic
(Must be taken in online format)
This final semester course will incorporate critical thinking and scientific knowledge as you complete 4 monthly modules on clinical management online with different instructors. You will learn key skills in assessment, clinical test analysis, designing treatment plans for specific common health conditions, weight loss strategies and how to effectively start and grow your nutrition practice. Synchronous technology will be used to help you learn real-time with your classmates and instructors. Prerequisites Nutr 560A, B, C, D, E, G, F, H, 1 and M.

4 semester hours

NUTRITION 560P
Botanical Medicine
A study of the use of herbs in nutritional practice. Lectures include the mechanism of action, pharmacological/toxocological properties, clinical applications, product standardization, and recommended dosage of individual herbs. Prerequisites Nutr 560A,B,C,D,E,G,F,H, 1 and M.

3 semester hours

ELECTIVE COURSES*

THESE COURSES ARE NOT REQUIRED/ALL ARE OPTIONAL AND IN ADDITION TO REQUIRED COURSES.

NUTRITION 560L
Nutrition and Exercise
An instructional class for nutritionists detailing proper protocols for evaluating a client’s readiness for exercise, designing a proper exercise/nutrition program with follow up assessments, exercise recommendations for clinical conditions, and enhancing endurance and performance during exercise and sports.

3 semester hours

NUTRITION 560Q
Nutrition and Cancer
This course will provide an understanding of the etiology for cancer from a functional medicine paradigm and current allopathic assessment and treatment options and how to implement nutritional therapy to assist cancer patients undergoing treatment. This course will also teach complementary supplementation strategies, and understanding of the role of diet and lifestyle in prevention of primary and secondary cancer and the establishment of communication skills to enhance collaboration with oncologists. Prerequisites: NUTR 560T 560Q and 560L.

3 semester hours

Offered: Annually

NUTRITION 560T
Nutrition and Autism
This course will establish a foundational understanding of what Autism Spectrum Disorder (ASD) is by defining the different conditions within the spectrum, and reviewing the known causes, symptoms, and trends and to acquire a foundational knowledge of the dietary modifications designed to facilitate healing and improve cognitive outcomes and increase overall health and well-being. Course will cover introduction to other biomedical treatments and testing available for ASD.

3 Semester hours

Physician Assistant (MSPA)

PHYSICIAN ASSISTANT 505
Information Literacy
This course provides students with the basic terminology, concepts and methods of research in order to be able to locate, evaluate and apply current evidence to clinical practice.

3 credits

PHYSICIAN ASSISTANT 511
Anatomy I with Lab
This course is designed to provide an introduction to the functional anatomy of the human body. Students will have the opportunity to locate, identify, and dissect all major muscular, nervous, vascular, bony, and soft tissue structures using cadaveric specimens.

4 credits

PHYSICIAN ASSISTANT 512
Anatomy II with Lab
This course builds on Anatomy I investigating the functional anatomy of the human body by offering students the opportunity to locate, identify, and dissect all major muscular, nervous, vascular, bony, and soft tissue structures using cadaveric specimens.

4 credits

PHYSICIAN ASSISTANT 521
Physiology/Biochemistry I
This course offers a fundamental and integrated approach to human physiology with emphasis on the study of the body’s functional system from a medical perspective.

3 credits

PHYSICIAN ASSISTANT 522
Physiology/Biochemistry II
This course builds on Physiology I to offer a fundamental and integrated approach to human physiology with emphasis on the study of the body’s functional system from a medical perspective.

3 credits

PHYSICIAN ASSISTANT 526
Pathophysiology
This course is designed to provide the basic pathophysiologic understanding of diseases and the resulting clinical presentation.

3 credits

PHYSICIAN ASSISTANT 531
Introduction to Clinical Lab and Microbiology
This course will provide the student with advanced microbiology, virology and immunology to understand the complexities of infectious disease. Emphasis will be placed on clinically relevant pathogens, isolation and aseptic techniques, identification and treatment.

3 credits

PHYSICIAN ASSISTANT 541
Clinical Genetics
This course familiarizes students with concepts of cellular and molecular biology; different types of mutations and their effects; inheritance patterns; genetic testing techniques; counseling referrals and key resources with
an emphasis on accurately creating and interpreting the pedigree in regards to disease identification and/or susceptibility, therapeutic options and future clinical applications of genetics in primary care.
2 credits

PHYSICIAN ASSISTANT 551
History and Physical Exam I with Lab
This ongoing course focuses on developing the skills of obtaining a comprehensive history and a problem focused history; performing a comprehensive screening exam and an appropriate problem focused exam; the ability to integrate and interpret the findings from these to create a foundation for further clinical evaluation. Emphasis is placed on identifying normal versus abnormal findings and on accurate and appropriate documentation.
3 credits

PHYSICIAN ASSISTANT 552
History and Physical Exam II with Lab
This ongoing course builds on H&P I in developing skills of obtaining a comprehensive history and a problem focused history; performing a comprehensive screening exam and an appropriate problem focused exam; the ability to integrate and interpret the findings from any of these to create a foundation for further clinical evaluation. Emphasis is placed on identifying normal versus abnormal findings and on accurate and appropriate documentation.
3 credits

PHYSICIAN ASSISTANT 553
History and Physical Exam III with Lab
This ongoing course builds on H&P I and II in developing skills of obtaining a comprehensive history and a problem focused history; performing a comprehensive screening exam and an appropriate problem focused exam; the ability to integrate and interpret the findings from any of these to create a foundation for further clinical evaluation. Emphasis is placed on identifying normal versus abnormal findings and on accurate and appropriate documentation.
4 credits

PHYSICIAN ASSISTANT 556
Patient Education and Counseling
This course is a practical, evidence based approach to educate and counsel patients in order to improve lifestyle, increase adherence and reduce medical errors.
2 credits

PHYSICIAN ASSISTANT 561
Health, Wellness and Nutrition Throughout the Lifespan
This course will emphasize disease prevention, health promotion during various stages of life with emphasis on the pediatric and geriatric population.
2 credits

PHYSICIAN ASSISTANT 571
Clinical Pharmacology I
This course introduces the student to the basic principles of pharmacology, including mechanisms of action; absorption, distribution, metabolism, and excretion; pharmacokinetics; interactions with other drugs and with food; problems with special populations (prenatal, neonatal, elderly); rational drug usage for clinical disorders (therapeutics): clinical measures; and toxicology.
3 credits

PHYSICIAN ASSISTANT 572
Clinical Pharmacology II
This course builds on Clinical Pharmacology I with more advanced principles of pharmacology, including mechanisms of action; absorption, distribution, metabolism, and excretion; pharmacokinetics; interactions with other drugs and with food; problems with special populations (prenatal, neonatal, elderly); rational drug usage for clinical disorders (therapeutics); clinical measures; and toxicology.
3 credits

PHYSICIAN ASSISTANT 602
Information Literacy and Medical Writing
This course builds on Information Literacy I by integrating and applying those skills by requiring students to write in various scientific and medical formats.
2 credits

PHYSICIAN ASSISTANT 603
Medical Ethics
This course presents the student with the four topic method of evaluation of ethical issues. Each student will look at the ethical issue presented looking at Medical indications, patient preferences, quality of life and contextual features to provide a response to the ethical dilemma. The course will provide a foundation for the student to work through ethical dilemmas provided by the professor. During this course the student will identify and evaluate ethical issues of their own and touch upon options and solutions and provide the student with the ability to employ those methods throughout their career.
2 credits

PHYSICIAN ASSISTANT 604
Professional Practice and Policy
This course incorporates the history, development, certification, licensure, reimbursement and key organizations of the PA profession as well as the role of the PA in public health and state and federal policy making.
2 credits

PHYSICIAN ASSISTANT 608
Global Health
This course offers the student the opportunity to investigate the impact of health issues in other countries and the interactive affect on all populations in terms of epidemiology, disease, disasters, economics, health initiatives, ethics and policy.
2 credits

PHYSICIAN ASSISTANT 611
Clinical Medicine I with Lab
This ongoing body systems based course integrates all the skills and learning from the curriculum as related to medical problems encountered in the primary care setting. Emphasis is on the integration of anatomy, physiology, pathophysiology, microbiology, history and exam findings and diagnostic procedures in order to formulate a differential diagnosis; on ordering and interpreting diagnostic tests in order to develop a working diagnosis; and on developing and implementing treatment plans including as needed therapeutic procedures, pharmacology, referral and patient education and counseling.
4 credits

PHYSICIAN ASSISTANT 612
Clinical Medicine II with Lab
This ongoing body systems based course integrates all the skills and learning from the curriculum as related to medical problems encountered in the primary care setting. Emphasis is on the integration of anatomy, physiology, pathophysiology, microbiology, history and exam findings and diagnostic procedures in order to formulate a differential diagnosis; on ordering and interpreting diagnostic tests in order to develop a working diagnosis; and on developing and implementing treatment plans including as needed therapeutic procedures, pharmacology, referral and patient education and counseling.
8 credits
Physician Assistant

PHYSICIAN ASSISTANT 613
Clinical Medicine III with Lab
This ongoing body systems based course integrates all the skills and learning from the curriculum as related to medical problems encountered in the primary care setting. Emphasis is on the integration of anatomy, physiology, pathophysiology, microbiology, history and exam findings and diagnostic procedures in order to formulate a differential diagnosis; on ordering and interpreting diagnostic tests in order to develop a working diagnosis; and on developing and implementing treatment plans including as needed therapeutic procedures, pharmacology, referral and patient education and counseling.
4 credits

PHYSICIAN ASSISTANT 620
Fundamentals of Surgery
This course presents the fundamentals of the approach to surgery and the surgical patient. Emphasis is on pre, intra and post operative care; surgical skills and techniques; management of complications, and patient education and counseling.
4 credits

PHYSICIAN ASSISTANT 632
Integrative Medicine and Practice I
This ongoing course exposes students to the philosophies, concepts, techniques and practice of a variety of alternative and complementary medicine.
1 credit

PHYSICIAN ASSISTANT 633
Integrative Medicine and Practice II
This ongoing course exposes students to the philosophies, concepts, techniques and practice of a variety of alternative and complementary medicine.
2 credits

PHYSICIAN ASSISTANT 634
Integrative Medicine and Practice III
This ongoing course exposes students to the philosophies, concepts, techniques and practice of a variety of alternative and complementary medicine.
2 credits

PHYSICIAN ASSISTANT 642
Medical Seminar
This ongoing course utilizes a variety of techniques designed to supplement and integrate content from all didactic courses, including but not limited to: small group interaction; problem based learning; case based learning; simulation lab; reflective discussion and literature critique.
2 credits

PHYSICIAN ASSISTANT 643
Medical Seminar II
This ongoing course utilizes a variety of techniques designed to supplement and integrate content from all didactic courses, including but not limited to: small group interaction; problem based learning; case based learning; simulation lab; reflective discussion and literature critique.
2 credits

PHYSICIAN ASSISTANT 644
Medical Seminar III
This ongoing course utilizes a variety of techniques designed to supplement and integrate content from all didactic courses, including but not limited to: small group interaction; problem based learning; case based learning; simulation lab; reflective discussion and literature critique.
2 credits

PHYSICIAN ASSISTANT 645
Medical Seminar
This is a continuation of the didactic course. During this course, presented in the supervised clinical experience period, topics in Clinical Medicine, Integrative Medicine, Global Health and Medical Ethics are presented.
2 credits

PHYSICIAN ASSISTANT 646
Medical Seminar
This is a continuation of the didactic course. During this course, presented in the supervised clinical experience period, topics in Clinical Medicine, Integrative Medicine, Global Health and Medical Ethics are presented.
2 credits

Clinical Clerkships: Core Clinical Clerkships are Internal Medicine, Family Practice, Pediatrics, Obstetrics and Gynecology, Emergency Medicine, Psychiatry and Surgery

*PHYSICIAN ASSISTANT 651
Clinical Clerkship I
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

*PHYSICIAN ASSISTANT 652
Clinical Clerkship II
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

*PHYSICIAN ASSISTANT 653
Clinical Clerkship III
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

*PHYSICIAN ASSISTANT 654
Clinical Clerkship IV
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

*PHYSICIAN ASSISTANT 655
Clinical Clerkship V
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

*PHYSICIAN ASSISTANT 656
Clinical Clerkship VI
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

*PHYSICIAN ASSISTANT 657
Clinical Clerkship VII
One of the core supervised clinical clerkships for the Physician Assistant student.
4 credits

PHYSICIAN ASSISTANT 658
Capstone Project
This is the capstone research project where the student is required to complete and submit their research paper of publishable quality to the faculty.
2 credits

*PHYSICIAN ASSISTANT 660
Clinical Clerkship IX
An elective specialty supervised clinical experiences for the Physician Assistant student.
3 credits

*All students are required to complete all of the seven core supervised clinical clerkships. The clinical clerkship sequence will be individually assigned to students.
Statistics • Technology Management

Statistics

STATISTICS 400
Statistics and Quantitative Analysis
This course is an introduction to basic statistical methodology and its applications to business decisions. Topics include probabilities, discrete and continuous probability distributions, probability sampling techniques, sampling distributions, interval estimation and hypothesis testing. The basics of specific statistical tests will be presented including chi square, correlation, multiple regression and analysis of variance. Students will use software packages to perform statistical analysis. Prerequisite: Admission to graduate study.
3 lecture hours; 3 semester hours

Technology Management

TECHNOLOGY MANAGEMENT 400
Marketing, Entrepreneurial and Innovation Issues and Practices in Management
This course focuses on strategic marketing, entrepreneurial, intrapreneurial and innovation issues, opportunities and best practices in helping organizations grow in a complex global environment. which have emerged in the last few years such as the growing importance of strategic marketing, voice of the customer, customer service and innovation in helping companies grow as well as achieve and sustain competitive advantage. The business impact of new technologies which enable marketing and innovation are covered. The course also examines the principles of entrepreneurship and intrapreneurship in developing new products, services and processes. In addition to individual assignments, students are assigned to team projects to develop product or service market plans either for start-up businesses or within the context of a corporate venture. Prerequisite: Admissions to graduate studies.
3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 410
Survey of Technology
The course provides an introduction into managing engineering and technology projects and surveys, the history, current and emerging technologies in the areas of: health/medicine and biotechnology; materials, energy, environment; electronics, computing and the Internet; nanotechnology, transportation; structures, transit; infrastructure, security, manufacturing, systems processes and aerospace.
3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 495
Contemporary Issues in Communications and Research
The course is designed to help students improve their communications (e.g. oral, written, and formal presentation) skills and research methods and techniques used in business, technology and engineering disciplines.
3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 500
Graduate Co-Op/Internship in Technology Management
Students will work for a company in a role that is appropriate for an MS - TM graduate, or near graduation. Through this experience students will apply management principles and theory in a practical setting. The student will write a paper summarizing the tasks and accomplishments encountered within the organization, as well as make managerial recommendations for improvement of the company, or division in which s/he was employed. Prerequisite: Final semester of study and the Director, TM Program approval.
1-3 semester hours

TECHNOLOGY MANAGEMENT 505/520
Global Program and Project Management
This course covers new product development, innovation and commercialization, as well as the product management life cycle. Topics covered include the feasibility and investment prioritization of new products or product enhancements, raising capital for new product development, market and customer needs analysis, make versus buy alternatives and product launch and commercialization issues and considerations, including promotion, pricing, distribution, competition, pre and post sales support, systems and infrastructure support, customer service and related areas. Students will work on individual and team projects that will include the development of a new product market/business plan. Prerequisite: TCMG 400.
3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 506 (TCMG 506)
Advanced Program and Project Management
This is an advanced course in Global Program and Project Management. It covers the Project Management Institute’s Knowledge and Process areas and prepares students to take various PMI Project Management Certification. Prerequisite: TCMG 505.
3 semester hours

TECHNOLOGY MANAGEMENT 508 (TCMG 508/MKTG 660)
Foundations of Project Management
This course covers new product development, innovation and commercialization, as well as the product management life cycle. Topics covered include the feasibility and investment prioritization of new products or product enhancements, raising capital for new product development, market and customer needs analysis, make versus buy alternatives and product launch and commercialization issues and considerations, including promotion, pricing, distribution, competition, pre and post sales support, systems and infrastructure support, customer service and related areas. Students will work on individual and team projects that will include the development of a new product market/business plan. Prerequisite: TCMG 400.
3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 512 (TCMG 512/MGMT 590)
Intellectual Property Management
Protection of a business’ intellectual property assets can make the difference between success and failure. This course will discuss the strategies and methods available for protection of intellectual property in the global environment. Students will work through the American patent, copyright and trademark processes, including how to prepare and file applications for each. Students completing this course should be able to pass the Patent Agent exam. Global business issues, such as protection of ideas in an off-shoring arrangement, IP co-development and other issues, will also be addressed. Prerequisite: TCMG 490 or Director, TM Program approval.
3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 520 (TCMG 520)
Information Systems Development & Design
A course in the analysis, design, and development of business systems. Students will learn a variety of development models and tools available for systems development, deployment and management. The role of all systems constituents is addressed through discussion of the specification, decision-making, and review of designs, documentation, program specifications, and system improvement. Course level and content is suitable for mana-
Technology Management

geral as well as the more technically oriented. Prerequisites: ITIS 400 or Director, TM program approval.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 523 (tcMg 523/Meeg 523)
Leadership, Teams & Managing Change
This course focuses on the development of leadership skills important in the effective management of change. Through role-playing exercises, videotapes, diagnostic tools, seminar discussion, selected readings, and a group project, students will learn theory and build interpersonal skills necessary for providing leadership in diverse multicultural groups and organizations. The course will address the managerial issues present in organizations undergoing accelerating change and adopting a culture of creativity. Creating and sustaining high performance multi-cultural and interdisciplinary traditional and virtual teams is covered. Prerequisite: Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 524
Statistical Quality Control Techniques
This course presents a comprehensive summary of methods for managing quality and continuous process improvements. The course objective is to develop an operational familiarity with contemporary methods found to be effective. Topics covered include statistical process control, quality function deployment, concurrent design, the house of quality, the Taguchi method, Six Sigma, lean and others. It also covers continuous process improvement methodologies and techniques. This course is intended for those students who do not plan to specialize in quality management. Prerequisite: Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 525 (tcMg 525)
Finance and Accounting for Managers
This course provides managers with the skills required to read, interpret and apply information about an organization’s financial position. Managerial accounting and finance concepts will be presented, followed by financial statement analysis. Topics presented from a managerial perspective will include how accounting data is generated during business operations, how financial statements are created and analyzed, management of finance to maximize return on investment and stakeholder equity and other related topics. Students will be required to participate in case work applying the principles presented in the class. Prerequisite: Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 530 (tcMg 530/Meeg 530)
Foundations of Manufacturing Management
The objectives of the course are to understand and apply concepts and techniques in manufacturing management. The course includes the management of people (both traditional and high performance systems and teams), lean manufacturing techniques as used on the factory floor, and recent concepts such as Factory Physics. The course focuses on those issues that are important in supervising and managing a modern manufacturing operation. Prerequisites: graduate standing.

3 semester hours

TECHNOLoGY MAnAGEmENT 532 (tcMg 532/Mktg 550)
Global Market Management
Strategy planning, implementation and control for market entry and development. Topics include social, political and economic changes affecting marketing opportunity; focused versus dispersed marketing efforts; marketing in developed and undeveloped countries; and marketing systems required for the various strategic alternatives. Prerequisite: TCMG 400.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 533 (tcMg 533)
Information Technology Strategy and Governance
This course covers information technology plans, strategy, business/IT alignment, governance, environmental, ethical, economic, regulatory, compliance and technical issues and trends with a focus on planning, organizing, justifying, controlling, implementing and integrating concepts and real world experiences. It discusses business and IT balanced scorecards, metrics and key performance indicators. Current and emerging best business and technology strategy and governance best practice frameworks such as COBIT, CMMI, PMBOK, Kano, VOC, QFD, ITIM, Prince2, ITIL, select ISO standards and others will be covered with emphasis on lessons learned, critical success factors and pragmatic solutions. Individual and team projects and case studies are integrated into the course. Prerequisite: ITIS 400 or Director, TM program approval.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 534 (tcMg 534/Mgmt 535)
Strategic Sourcing and Vendor Management
This course covers the rewards and risks of outsourcing and vendor management and identifies where outsourcing should be used and not used. The objectives of the course are to help students understand how to plan, direct, manage and more effectively participate in outsourcing initiatives in terms of the feasibility of outsourcing (off-shore, near-shore, rural-shore, best shore), vendor selection, contract negotiation, vendor management and evaluation, risk assessment and terminating outsourcing deals. Prerequisite: TCMG 523 and TCMG 505 or Director, TM program approval.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 535 (tcMg 535/Meeg 535)
Foundations of Bio Tech Sciences and Management
This course covers the comprehensive scope of knowledge of major issues and technologies in the bio technology field. This includes regulatory, robotic, imaging, cybernetics, bioinformatics, genetics, ethics and related areas. Individual and team projects will be assigned. Prerequisite: Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 540
Advanced Simulation and Modeling Techniques
The purpose of this course is to provide an in depth coverage of the use of simulation and modeling as an analysis tool for the study of production and distribution processes. The course aims to develop a sense of critical thinking, learning and problem solving. Topics include: problem formulation, data collection and analysis, random variable generation, and statistical analysis of output. Utilizes a major simulation language, SIMAN.

3 lecture hours; 3 semester hours

TECHNOLoGY MAnAGEmENT 540 (tcMg 540/Meeg 540)
Simulation and Modeling Techniques
The course covers the concepts and methods that will assist engineering and technology managers and professionals to make alternative investment and funding decisions regarding projects, programs, products, business expansion and other alternatives using the financial calculations involving time value of money (IRR, ROI, NPV), uncertainty and risk. Topics include engineering and related financial evaluation techniques and formulas, choosing among alternatives, sensitivity analy-
Technology Management

sis, economic analysis, opportunity costs, depreciation, amortization, probability, cost estimating and systems and others. Prerequisites: TC MG 484.

3 semester hours

TECHNOLOGY MANAGEMENT 556 (TC MG 556/MKTG 552)

Services Marketing

The course addresses the unique problems of marketing intangibles in the broad spectrum of service industries. The course focuses on the development, implementation and control of strategy, systems and people for effective service operations. This is a case study course. Prerequisite: TC MG 400.

3 semester hours; 3 semester hours

TECHNOLOGY MANAGEMENT 557 (TC MG 557/ITIS 557)

Infrastructure Systems

This course covers the fundamentals of data networking, including signaling, routing and technologies underlying the explosive growth of e- and m-commerce. The managerial issues relevant to network utilization, security and service delivery will be addressed as the underlying communications technologies are discussed. Prerequisite: ITIS 400.

3 semester hours; 3 semester hours

TECHNOLOGY MANAGEMENT 560 (TC MG 560)

Foundations of Environmental and Energy Management

This course covers the assessment of current and potential environmental and energy management issues, opportunities and threats. Key issues such as global warming, pollution, global energy supply and demand needs will be discussed. Alternative energy sources are reviewed, including examination of energy technologies in each fuel cycle stage for fossil (oil, gas, synthetic), solar, biomass, wind, hydro, nuclear, and geothermal energy types, along with storage, transmission, and conservation issues. Prerequisite: Admission to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 561 (TC MG 561)

Economic, Regulatory, Cultural, and Societal Issues in Environment and Energy Management

The course will focus on a review of the environmental and energy management safety, hazard identification and disaster prevention policies, laws, concepts and issues. U.S. and international laws, regulations and standards will also be covered. The course will provide the student with a better understanding of how the complexity of this topic impacts economic, political, cultural and societal and opportunities in environment and energy management. Prerequisite: TC MG 560.

3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 570 (TC MG 570/ MGMT 570)

Foundation of Health Care Management and Administration

This course focuses on a systematic exploration of the health care system in the United States, government interactions and regulations, delivery systems, healthcare insurance and financing, health care providers, innovations in healthcare services and alternative strategies. Prerequisite: TC MG 523.

3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 571 (TC MG 571/ MGMT 571)

Foundations of Service Management and Engineering

With the rapid growth of the services industry, this course integrates topics from economics, engineering, law, technology and organizational theory to deal with how firms change over time to become more service oriented or become service business and the mechanisms and tools by which they seek innovation and competitive advantage in the service sector. The services life cycle is reviewed. In addition, enabling technologies and how different disciplines help to answer questions about how business services combine, evolve, standardize and mature are covered. Prerequisite: Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 572 (TC MG 572/MEEG 572)

Production Technology and Techniques

This course will introduce up-to-date technology, techniques and systems of the global manufacturing industry. American manufacturing situation would be analyzed and Japanese manufacturing success is also explored. Comprehensive and readable description of manufacturing practice is researched.

3 semester hours

TECHNOLOGY MANAGEMENT 573 (TC MG 573/MEEG 573)

Supply Chain Management

The goal of this course is to cover not only high-level supply chain strategy and concepts, but also to give students a solid understanding of the analytical tools, to understand supply chain design, planning and operation and high it impacts the performance of a firm. It also conveys how supply chain drivers used on a conceptual level during supply chain design and operation lead to performance improvements. Prerequisite: Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 574 (TC MG 574/MEEG 574)

Principles of Logistics and Materials Management

This course presents materials management, logistics theory and concepts in today’s manufacturing and commercial environments. It integrates all of the functional areas of the business as well as incorporating logistics into corporate operation. They are examined in light of how they interrelate with other functions for the firms. Prerequisite: ENGR 111, ENGR 300 and Admissions to graduate studies.

3 lecture hours; 3 semester hours

TECHNOLOGY MANAGEMENT 595

Technology Business Strategy (Capstone Course)

This course is a capstone course dealing with the development and implementation of a business strategy and plan within a framework of ethical decision-making, globalization and managing accelerating change. It tests the capability of the student to apply all prior learning to solve actual strategic management problems.

3-6 semester hours

TECHNOLOGY MANAGEMENT 597AB

Master’s Project

A capstone course dealing with the development and implementation of business strategy and plan within a framework of ethical decision-making, globalization and managing accelerating change. It tests the capability of the student to apply and integrate all prior graduate learning to solve actual strategic management problems, develop a business plan and conduct organizational performance and governance assessments. The final project of this course is project-based and shall constitute, therefore, an outcome assessment of what the student has learned in the MS - TM program. Prerequisite: Final semester for completion of MS - TM Program.

3-6 semester hours

TECHNOLOGY MANAGEMENT 597C

Masters Project (Completion)

Topics to be arranged. Prerequisite: Approval of the Director, TM Program.

1 semester hour
Technology Management

Technology Management 698
Thesis in Technology Management
Completion of a report based on field, library and institutional research to demonstrate ability to conduct investigations in a technology management discipline. Approval of the Director, TM Program.
3 – 6 semester hours

Technology Management 699
Independent Study in Technology Management
This course is reserved for a special project that cannot be done any other way and to help a student complete the MS when no other alternative is available. Prerequisite: Approval of the Director, TM Program.
3 semester hours

Technology Management 645
Technology New Venture Creation
This course is for graduate students interested in starting a technology venture, joining a small firm intent upon rapid growth, or pursuing a career in consulting, venture capital, or the management of a technology business or venture for larger companies. The course will provide an opportunity to identify and analyze new business and technology venture issues and opportunities. Select topics covered include: evaluating market opportunities, designing profitable business models, producing a solid business plan, raising capital (multiple rounds), protecting intellectual property and exit strategies such as a merger, the sale of the company or an initial public offerings (IPO). Prerequisites: TCMG 400.
3 semester hours

Technology Management 645
Technology New Venture Creation
This course is for graduate students interested in starting a technology venture, joining a small firm intent upon rapid growth, or pursuing a career in consulting, venture capital, or the management of a technology business or venture for larger companies. The course will provide an opportunity to identify and analyze new business and technology venture issues and opportunities. Select topics covered include: evaluating market opportunities, designing profitable business models, producing a solid business plan, raising capital (multiple rounds), protecting intellectual property and exit strategies such as a merger, the sale of the company or an initial public offerings (IPO). Prerequisites: TCMG 400.
3 semester hours

Technology Management 620X
Strategic Management of Technology and Innovation
This course presents a coherent process for the formulation, implementation, and assessment of technology strategy. This includes the technology life cycle of birth, growth, maturation, and decline of business innovation. Technology management and innovation are studied within a strategic management perspective. Methods of technology planning, strategic management and forecasting for use in technology intensive organizations are discussed, including strategies for commercializing products.
3 semester hours

Technology Management 694
Written/Oral Comprehensive Examination
Students taking comprehensive Ph.D. examinations are required to register for (TMPD) 694.
0 semester hours

Teaching Requirement
Ph.D. students assigned to teach courses to fulfill the teaching practicum of the Ph.D. in Technology Management are required to register for (TMPD) 698.
0 semester hours

Technology Management 699
Seminar (Oral Defense of Dissertation Proposal)
This course is a zero credit course. It involves attending the regular departmental seminars and presenting one’s work in one of the seminars.
0 semester hours

Doctoral Seminars
These courses are designed for doctoral students only. (TMPD= Technology Management Ph.D. course)

Technology Management 620X
Strategic Management of Technology and Innovation

Technology Management 698
Teaching Requirement
Ph.D. students assigned to teach courses to fulfill the teaching practicum of the Ph.D. in Technology Management are required to register for (TMPD) 698.
0 semester hours

Technology Management 699
Seminar (Oral Defense of Dissertation Proposal)
This course is a zero credit course. It involves attending the regular departmental seminars and presenting one’s work in one of the seminars.
0 semester hours

Technology Management 702
Explorations in Research Methodologies
This course exposes students to a wide variety of research approaches across many disciplines. Explores the processes and problems of designing and conducting various kinds of research. Develops skill in evaluating TM research. Through a series of guest researchers, enables students to discuss research process and publication issues with experts. Explores the non-statistical issues in research planning and execution. Develops understanding and skill in the scientific approach, problem definition, hypothesis development, research design and methodology planning.
3 semester hours

Technology Management 704
Research, Design, Data Analysis and Measurement
This course covers techniques such as measurement approaches, scale construction, interview procedures, questionnaire design, secondary sources, observational capability, content analysis, and experimental design. Explores problems of assessing reliability and validity of research findings. Explores the selection and application of statistical procedures for analyzing data to reach significant conclusions and avoid erroneous conclusions through application of statistical techniques such as correlation analysis, multiple regressions, analysis of variance, cluster analysis, discriminant analysis, conjoint analysis and others. Develops criteria for selecting appropriate procedures to assess the statistical properties of data sets. Prerequisite: TMPD 702
3 semester hours

Explorations in Research Methodologies
This course exposes students to a wide variety of research approaches across many disciplines. Explores the processes and problems of designing and conducting various kinds of research. Develops skill in evaluating TM research. Through a series of guest researchers, enables students to discuss research process and publication issues with experts. Explores the non-statistical issues in research planning and execution. Develops understanding and skill in the scientific approach, problem definition, hypothesis development, research design and methodology planning.
3 semester hours

Research, Design, Data Analysis and Measurement
This course covers techniques such as measurement approaches, scale construction, interview procedures, questionnaire design, secondary sources, observational capability, content analysis, and experimental design. Explores problems of assessing reliability and validity of research findings. Explores the selection and application of statistical procedures for analyzing data to reach significant conclusions and avoid erroneous conclusions through application of statistical techniques such as correlation analysis, multiple regressions, analysis of variance, cluster analysis, discriminant analysis, conjoint analysis and others. Develops criteria for selecting appropriate procedures to assess the statistical properties of data sets. Prerequisite: TMPD 702
3 semester hours

Quantitative Methodologies
This course provides the mathematical and statistical preparation to support subsequent doctoral course work within the Technology
Technology Management

Management department and prepare the student to apply quantitative methods and data analysis techniques. Topics include probability, statistics, measurement and evaluation, sampling, designing studies, linear algebra, linear programming, optimization, simulation, and modeling and regression analysis. Students make extensive use of leading-edge industry software packages.

3 semester hours

TECHNOLOGY MANAGEMENT 710
Ph.D. Dissertation
This course is the Ph.D. Dissertation. The student is expected to work on the accepted topic and come up with original results. S/he has to report the results in the form of a Ph.D. dissertation. The student is encouraged to document the intermediate results in the form of reports. S/he is also encouraged to publish these results as they are discovered, in the international professional literature, i.e., refereed conference proceedings and journals. Proof of good work is the acceptance of the results by reputable journals. Intermediate results can also be discussed in departmental seminars. The completed dissertation must be distributed to the dissertation committee members at least two weeks before the dissertation defense. The committee will read it and certify that the dissertation is a work of substantial merit and that it can be defended. It is the responsibility of the student that the final draft of the dissertation addresses all legitimate concerns of the committee members.

Minimum of 15 semester hours

Area 1: New Technology Venture Creation Electives

It is assumed that individuals taking this focus area will have the appropriate academic and business/industrial background. Those people not having the needed background will be responsible for taking necessary prerequisite courses, which will not count toward the minimum classroom hours required for the Ph.D. degree.

TECHNOLOGY MANAGEMENT 505 (TCMG 505/MGMT 555)
Global Program and Project Management
This course focuses on the managerial aspects of how to more effectively manage, plan and execute programs/projects with a focus on high quality deliverables arriving on time, within budget, within scope and to the customer's satisfaction. Areas covered will include program and project management life cycle phases, executive sponsorship, portfolio investment management selection and prioritization, requirements, scope and project chartering, planning, development, estimating, staffing, leadership, scheduling, risk management, change management, project metrics, vendor integration and management and other related topics. This course is based on current and emerging best practices and principles. It will also discuss PM certification requirements and provide real world case studies.

3 semester hours

TECHNOLOGY MANAGEMENT 506 (TCMG 506)
Advanced Program and Project Management
This is an advanced course in Global Program and Project Management. It covers the Project Management Institute's Knowledge and Process areas and prepares students to take various PMI Project Management Certification. Prerequisite: TCMG 505

3 semester hours

TECHNOLOGY MANAGEMENT 508 (TCMG 508 / MGMT 565)
Foundations of Product Management
This course covers new product development and innovation, as well as the product management life cycle. Topics covered include the feasibility and investment prioritization of new products or product enhancements, raising capital for new product development, market and customer needs analysis, make versus buy alternatives and product launch and commercialization issues and considerations, including promotion, pricing, distribution, competition, pre and post sales support, systems and infrastructure support, customer service and related areas. Students will work on individual and team projects that will include the development of a new product market/business plan.

3 semester hours

TECHNOLOGY MANAGEMENT 512 (TCMG 512 / MGMT 590)
Advanced Intellectual Property Management
This course will discuss the strategies and methods available for protection of intellectual property in the global environment. Students will work through the American patent, copyright and trademark processes, including how to prepare and file applications for each. Students completing this course should be able to pass the Patent Agent exam. Global business issues, such as protection of ideas in an off-shoring arrangement, IP co-development and other issues, will also be addressed. Students will understand that the protection of a business' intellectual property assets can make the difference between success and failure.

3 semester hours

TECHNOLOGY MANAGEMENT 523 (TCMG 523/MGMT 523)
Leadership, Teams & Managing Change
This course focuses on the development of leadership skills important in the effective management of change. Through role-playing exercises, videotapes, diagnostic tools, seminar discussion, selected readings, and a group project, students will learn theory and build interpersonal skills necessary for providing leadership in diverse multicultural groups and organizations. The course will address the managerial issues present in organizations undergoing accelerating change and adopting a culture of creativity. Creating and sustaining high performance multi-cultural and interdisciplinary traditional and virtual teams is covered.

3 semester hours

TECHNOLOGY MANAGEMENT 525 (TCMG 525)
Finance and Accounting for Managers
This course provides managers with the skills required to read, interpret and apply information about an organization's financial position. Managerial accounting and finance concepts will be presented, followed by financial statement analysis. Topics presented from a managerial perspective will include how accounting data is generated during business operations, how financial statements are created and analyzed, and management of finance to maximize return on investment and stakeholder equity and other related topics. Students will be required to participate in case work applying the principles presented in the class.

3 semester hours

TECHNOLOGY MANAGEMENT 532 (TCMG 532/MKTG 560)
Global Market Management
Strategy planning, implementation and control for market entry and development. Topics include social, political and economic changes affecting marketing opportunity; focused versus dispersed marketing efforts; marketing in developed and undeveloped countries; and marketing systems required for the various strategic alternatives.

3 semester hours


**Technology Management**

**TECHNOLOGY MANAGEMENT 559 (TCMG 559/MGMT 560) Foundations of Business Process and Operations Management**

The nature of any organization is to provide products and services. At the heart of such provision is the operations management function, which can account for 60% to 75% of an organization’s operating costs, investment and assets. Consequently the operations management role is challenging and dynamic, ranging from short-term control to long-term planning activities. Indeed due to the critical nature of the operations management function it is highly visible and exposed to scrutiny, more so than any other function of an organization. Therefore, if you want a career which is demanding and stimulating, as well as knowing that you are contributing to the success of an organization, the Operations & Business Management course can provide you with the perfect launch pad.

3 semester hours

**TECHNOLOGY MANAGEMENT 562 (TCMG/MGMT 582) Small Business and Entrepreneurship**

This course provides a comprehensive review of the marketing, operational, financial, product, service and business strategy and plans that must be mastered and developed as foundation for start-up of a small business or entrepreneurship enterprise. In addition, the growth of existing business, through Intrapreneurship, is also covered. Students are required to develop a comprehensive business plan for a business of their own choice and which is acceptable to the instructor.

3 semester hours

**TECHNOLOGY MANAGEMENT 580 (TCMG/MGMT 585X) New Product Commercialization**

The objectives of the course are to understand and apply concepts and techniques of product commercialization. The course focuses on taking student created product concepts and having student teams drive the concepts to become actual products. Product design, prototype creation, market analysis, and financial analysis all come together within the student team to create a viable product.

3 semester hours

**TECHNOLOGY MANAGEMENT 595(TCMG 595) Technology Business Strategy (Capstone/Course)**

This course is a capstone dealing with the development and implementation of a business strategy and plan within a framework of ethical decision-making, globalization and managing accelerating change. It tests the capability of the student to apply all prior learning to solve actual strategic management problems.

3 semester hours

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**Area 2: Select Current Emerging Technologies (Technology Specializations)**

**Bio-Technology and Bio-Medical Technology, Systems and Processes**

It is assumed that individuals taking this focus area will have the appropriate academic and business/industrial background. Those people not having the needed background will be responsible for taking necessary prerequisite courses, which will not count toward the minimum classroom hours required for the Ph.D. degree. Students are expected to have a working knowledge of statistics, biology and chemistry.

**BIOMEDICAL ENGINEERING 508 (BMEG 508/MEEG 508) Biomechanics**

Biomechanics is the application of mechanical principles to living organisms that included bioengineering, research and analysis of mechanism in living organisms, and application of engineering principles to and from biological systems. This course can be carried forth from the molecular level including collagen and elastin, all the way up to the tissue and organ levels. Some simple applications of Newtonian mechanics can supply approximations on each level, but precise details demand the use of continuum mechanics.

3 semester hours

**BIOMEDICAL ENGINEERING 510 (BMEG 510/ELEG 510) Medical Machines**

This course provides a very good introduction and understanding of Electrical Safety, Medical electronics and Medical Machines, as applicable. Students often have different backgrounds and levels of understanding of technical concepts; therefore, we will develop the necessary background in this course in first few weeks and gradually move from basic to advance topics as listed below in “Class Topics” section. This course will further help by developing an approach to design devices and safety features. Behind every invention, law or device, there is always a need, a necessity. Students go from necessity to invention in the class since a large number of electronic equipment are being used in hospitals and medical centers for patient care and diagnosis or to carry out advanced surgeries. This course will enable students to learn the basics principles of different instruments used in medical science.

3 semester hours

**BIOMEDICAL ENGINEERING 513 (BMEG 513/ELEG 513) Biomedical Image Processing**

This course is an elective course. The content of this course include the fundamentals of Digital Image Processing and its applications in biomedical field. Sampling and Quantization of signals are mentioned in order to introduce the digital images, some basic relationship between pixels are mentioned. Introduction to Fourier Transformation, Discrete Fourier Transform and Fast Fourier Transformed are explained. MATLAB programming with Image Processing Toolbox will be introduced to emphasize and rigid the understanding of students. Others important fundamental theorems, e.g., Image Enhancement, Image Segmentation, Representation and Description are also mentioned. Students are required to implement some programs using the theorems learnt in classes.

3 semester hours

**TECHNOLOGY MANAGEMENT 535 (TCMG 535/BMEG 535) Foundations of Bio Tech Sciences and Management**

This course covers the comprehensive scope of knowledge of major issues and technologies in the bio technology field. This includes regulatory, robotic, imaging, cybernetics, bioinformatics, genetics, ethics and related areas. Individual and team projects will be assigned.

3 semester hours

**BIOMEDICAL ENGINEERING 547 (BMEG 547/ELEG 547) BioMEMS**

This course will introduce to students the fundamentals of BioMEMS, the application of MEMS (Microelectromechanical Systems) for biological applications. The topics include microfabrication, microfluids, biosensors, actuators, micro/nano drug delivery systems, micro total analysis systems and lab-on-a-chip devices, and detection and measurement systems. The main focus is to understand the fundamental challenges and limitations involved in designing and fabricating various BioMEMS and BioNEMS devices.

3 semester credits
Technology Management

TECHNOLOGY MANAGEMENT 555X (TCMG 555/BMEG 555X)
Biotechnology and Entrepreneurship
The course examines the principles of bio-entrepreneurship in developing new products, services and processes. Students will learn about the biotechnology dynamics at the global scale in the biomedical drug, diagnostic, hospital management, and devices industries and their markets. Deliverables include homework, assignments, an academic report and a team project. This course provides students with the skills required to read, interpret and apply academic literature, how to identify, extract and understand important information that is useful in the bioentrepreneurial decision-making processes. Students will be required to participate in case work applying the principles presented in the class.
3 Semester hours
3 semester hours

BIOMEDICAL ENGINEERING 562 (BMEG 562/ELEG 562)
Nanofabrication with Soft Materials
This is an advanced level graduate course focusing on fabrication of soft materials. Nanofabrication processes and nanosystem products will be discussed. Fundamentals associated with chips fabrications and linking them toward soft materials assembly will be detailed. Emerging nanotechnology based methods for soft and green electronics, mechanical parts, MEMS, PCBs will be covered. Gene chip, label free sensory assay using micro and nanofluidics will be discussed. Transfer printing, DNA-protein interactions using the chip and several nano-scale assemblies for soft materials fabrication will be discussed.
3 semester credits

BIOMEDICAL ENGINEERING 563 (BMEG/MEEG 563)
Polymer Nanocomposites
A great deal of emphasis is put on you getting exposure to the growing field of nanocomposite materials and their biomedical engineering applications. This exciting field is constantly evolving. New composite materials are always being developed and their commercial impact is beginning to be seen. Hence many biomedically relevant nanocomposites such as biogels, bones, cartilages etc. and their bioinspired analogs will be covered. The processes pertaining to in-situ and ex-situ nanocomposites, many antibacterial nanoparticle syntheses and their use in devise will be covered in detail. Students will learn the structure and properties of polymers. Polymer-carbon nanotube, polymer-graphene and polymer-nanoparticle based nanocomposites will be discussed. Design and development of mechanical, thermal, electronic and multifunctional nanocomposites are their direct and indirect interfaces with natural and synthetic biological structures will be discussed.
3 semester hours

BIOMEDICAL ENGINEERING 565 (BMEG 565/ELEG 565)
Biomedical Materials and Engineering
This course introduces the student to the progress of biomaterials used in biomedical engineering. Starting from early civilization biomaterials, this course discusses modern advanced level biomaterials and their engineering principles associated with their biomedical use. Hip, knee prostheses, implants, grafts, sutures, stents, catheter materials, and their application in Biomedical Engineering are covered. Designed biomaterials such as silicones, polyurethane, Teflon, hydrogels, bi-onanocomposites are detailed. Modern biology and biomedical engineering such as protein absorption, biospecific medical materials, nonfouling materials, healing and foreign body reaction, controlled release, etc., are discussed. Surface-immobilized biomolecules in patterned surfaces are explained with specific examples for the use of immobilized biomolecules, immobilized cell ligands, and immobilization methods. Recent advances in biomedical engineering from the perspectives of inkjet printing of cells and tissues for 3D medical textiles, nanofibers and films in biomedical engineering by electrostatic spinning, bio-inspired materials through layer by layer (LBL) assembly and biogels and advanced instrumentation in biomedical engineering are updated. Artificial red blood and skin substitutes, orthopedic biomaterials applications adhesives and sealants, diagnostics, biomedical sensors, extracorporeal artificial organs and ethical issues of biomedical engineering are discussed.
3 semester hours

BIOMEDICAL ENGINEERING 567 (BMEG/MEEG 567X)
Physiological Fluid Dynamics
There is a great and vital difference between the transport processes in the human body from other engineering systems. A thorough understanding of physiological fluid mechanics is essential for innovation in medical assist and monitoring devices. Emphasis in this course is placed on assist devices, flow and thermal measurements, modeling for engineering application, and understanding application to biomedical problems.
3 semester hours

BIOMEDICAL ENGINEERING 580 (BMEG 580)
Tissue Engineering
The objective of this course is to provide students a foundation for the understanding of cell based systems needed for tissue engineering. The structure-property-function relationships in normal and pathological mammalian tissues will be covered. A review of the current development of biological substitutes to restore, maintain, or improve functions that includes strategies to regenerate metabolic organs and repair structural tissues, as well as cell-based therapies to deliver proteins and other therapeutic drugs will be discussed. There are a variety of very important materials issues in tissue engineering, which will be discussed in detail. Cells adherence to the extracellular matrix materials in the body and their enormous effect on cell behavior will be detailed. The physical and chemical properties of these materials will be examined and important materials used in tissue engineering will be discussed.
3 semester hours

COMPUTER SCIENCE 551 (CPSC 551)
Advanced Database Design
This course introduces database design with an emphasis on systems (as opposed to applications). Topics include relational model, SQL, database normalization techniques, data storage and indexing, query evaluation and optimization, physical database design, and transaction management.
3 semester hours

Information Analytics, Technology and Decision Support Systems
It is assumed that individuals taking this course will have the appropriate academic and business/industrial/STEM background. Those people not having the needed background will be responsible for taking necessary prerequisite courses, which will not count toward the minimum classroom hours required for the Ph.D. degree. Students are expected to have a working knowledge of statistics and a combination of information technology and computer science courses.
Technology Management

COMPUTER SCIENCE 546 (CPSC 546)
Services Oriented Architecture
This course covers Service-Oriented Architectures as well as associated technologies such as XML processing, Web Services and Ajax. SOA is an approach to building a set of web services such that larger applications are exposed as smaller service modules (web services) that also allow integration via service composition mechanisms to build newer, useful larger applications. SOA is an evolution of distributed object computing and utilizes the messaging design pattern between web services. An application's business logic (middleware), or data related functions are modularized and presented as services for consumer/client applications. These services in a proper SOA design are loosely coupled in nature; i.e., the service interface is independent of the implementation. Application developers can build newer applications by composing one or more services without knowing the services' underlying implementations. This course not only presents the concepts behind proper SOAs, but also covers the technologies such as WCF (based on latest WS-* specifications) needed to practically build such architectures.

3 semester hours

COMPUTER SCIENCE 551 (CPSC 551)
Advanced Database Design
This course introduces database design with an emphasis on systems (as opposed to applications). Topics include relational model, SQL, database normalization techniques, data storage and indexing, query evaluation and optimization, physical database design, and transaction management.

3 semester hours

COMPUTER SCIENCE 555 (CPSC 555)
Web-based Application Development
This course provides an introduction to fundamental issues in designing a web-based application. Review of the web technologies such as HTML, VBScript, DHTML, Java, XML and server-side technologies using Active Server Pages (ASP), CGI and Java Server Pages (JSP). Design issues include the creation of tiered and scalable applications by the use of COM+ components involving Microsoft Transaction Server and the Java Beans. Different projects are assigned to create dynamic, database-driven E-Commerce solutions involving, order tracking systems, inventory systems, inventory management, advertising management, creating score reports, personalizing the shopping experience and secure credit card transactions. Wireless E-Commerce applications and developing business-to-business applications using XML, SOAP and Biztalk Servers.

3 semester hours

COMPUTER SCIENCE 556(CPSC 556)
Data Mining
This course is dealing with basic concepts, tasks, methods, and techniques in data mining. The focus is on various data mining problems and their solutions, such as association rule, classification, and clustering analysis. Students will learn various techniques for data mining, and apply the techniques to solve data mining problems. The following topics will be discussed in this course Introduction of Data Mining, Mining Frequent Patterns, Associations, and Correlations, Classification and Prediction, Cluster Analysis, Mining Stream, Time-Series, and Sequence Data, Graph Mining, Mining Spatial, Multimedia, Text and Web Data and Applications and Trends in Data Mining.

3 semester hours

COMPUTER SCIENCE 562 (CPSC / CPEG 562)
Information Assurance
This course covers both the principles and practice of information assurance. The topics include law and ethics of information security, intrusion detection, firewall & trusted computing, trust management, authentication & biometrics, authorization and access control, web security, web service security, privacy issues, principles & practices of IT auditing, information systems security professional certification (CISSP). The basic issues to be addressed by information assurance are explored through a tutorial and survey of law and ethics at the very beginning of the course. Then, the detailed practice of information assurance is explored via practical aspects as well as applications that have been used and implemented nowadays.

3 semester hours

COMPUTER SCIENCE 571 (CPSC / CPEG 571)
Internet Computing
This course discusses the principles and practices of computing problems over the Internet. This course focuses on the Internet as a domain for sharing information and resources with cloud systems. The topics include distributed systems, World Wide Web, the browser-cloud computing model, cloud systems, information retrieval and search technologies, multi-agent systems, web usage mining and personalization, social networks, peer-to-peer technologies, and semantic webs. Foundations of Internet computing and how to use modern technological frameworks to develop various Internet-based applications are covered by this course. Application areas include finance and e-business, government services, scientific computing, bioinformatics, collaborative computing, multimedia applications, and file-sharing systems. This course is not intended to be a course on web site development.

3 semester hours

TECHNOLOGY MANAGEMENT 520 (TCMG 520)
Information Systems Development and Design
This course focuses on the analysis, design, and development of business systems. Students will learn a variety of development models and tools available for systems development, deployment and management. The role of all systems constituents is addressed through discussion of the specification, decision-making, and review of designs, documentation, program specifications, and system improvement. Course level and content is suitable for managerial as well as the more technically oriented.

3 semester hours

TECHNOLOGY MANAGEMENT 521(TCMG 521 / ITKM 505)
Information Systems and Knowledge Management
The purpose of this course is to acquaint the students with some of the organizational and management issues surrounding the emergence of information and knowledge as key factors in developing and maintaining a competitive advantage for firms. The course is organized around two ideas, 1) knowledge as a manageable asset, and 2) why people in organizations sometimes don’t use what they know. A basic assumption of the class is that organizations are complex adaptive systems operating in highly competitive, information and knowledge rich environments.

3 semester credits

TECHNOLOGY MANAGEMENT 533 (TCMG 533)
Information Technology Strategy and Governance
This course covers information technology plans, strategy, business/IT alignment, governance, environmental, ethical, economic, regulatory, compliance and technical issues and trends with a focus on planning, organizing, justifying, controlling, implementing and
integrating concepts and real world experiences. It discusses business and IT balanced scorecards, metrics and key performance indicators. Current and emerging best business and technology strategy and governance best practice frameworks such as COBIT, CMMI, PMBOK, Kano, ITIM, Prince2, ITIL, select ISO standards and others will be covered with emphasis on lessons learned, critical success factors and pragmatic solutions. Individual and team projects and case studies are integrated into the course.

3 semester hours

TECHNOLOGY MANAGEMENT 540 (TCMG / MEEG 540)
Simulation and Modelling
The purpose of this course is to provide an in depth coverage of the use of simulation and modeling as an analysis tool for the study of production and distribution processes. The course aims to develop a sense of critical thinking, learning and problem solving. Topics include: problem formulation, data collection and analysis, random variable generation, and statistical analysis of output. Utilizes a major simulation language, SIMAN.

3 semester hours

TECHNOLOGY MANAGEMENT 549 (TCMG 549/ MGMT 548)
Business Intelligence and Decision Support Systems
Decision Support Systems (DSS) are interactive computer based systems that help decision makers understand and use data, models, and other analytical tools to evaluate their options. The course will focus on several aspects of DSS. Topics covered include Data-Driven systems, Model-Driven systems and Communications-Driven systems that help groups solve problems and Knowledge-Driven systems, and Document-Driven systems (expert systems). This course will enhance the student’s ability to understand the design and development of DSS with Web technology. Prerequisites: Completion of all required Information Technology and Knowledge Management required concentration courses or concurrent registration in final required concentration courses.

3 semester credits

TECHNOLOGY MANAGEMENT 568 (TCMG 568/ CPSC 568)
Foundation of Information Analytics
This course will introduce the foundation of Informatics. It will review how information sciences and computer technology can be applied to enhance research and practice in management and technology. The basic principles of informatics that govern communication systems, information retrieval, data mining, data warehousing support and evidence based business and technology decision support will be explored. Various Informatics tools will be covered.

3 semester hours

TECHNOLOGY MANAGEMENT 571 (TCMG 571/MGMT 571)
Foundations of Service Management and Engineering
This course integrates topics from economics, engineering, law, technology and organizational theory to deal with how firms change over time to become more service oriented or become service business and the mechanisms and tools by which they seek innovation and competitive advantage in the service sector. The services life cycle is reviewed. In addition, enabling technologies and how different disciplines help to answer questions about how business services combine, evolve, standardize and mature are covered.

3 semester hours

Manufacturing, Supply Chain and Logistics, Technology, Systems and Processes (Electives)

It is assumed that individuals taking this focus area will have the appropriate academic and business/industrial/application background. Those people not having the needed background will be responsible for taking necessary prerequisite courses, which will not count toward the minimum classroom hours required for the Ph.D. degree. Math skills that include calculus are required, and students are expected to have a working knowledge of statistics.

MECHANICAL ENGINEERING 512X (MEEG 512X)
Computational Fluid Dynamics
This course is intended as an introduction to the field of Computational Fluid Dynamics (CFD). Finite difference/finite volume methods will be introduced for solving Navier-Stokes and energy equations in heat transfer and fluid dynamics processes. This course will help students develop practical skills in Computational Fluid Dynamics and the use of commercial CFD packages, such as STAR-CCM+. Students will apply these skills to relevant engineering applications and gain an appreciation of the limitations and advantages of CFD modeling.

3 semester hours

TECHNOLOGY MANAGEMENT 524 (TCMG 524)
Statistical Quality Control Techniques
This course presents a comprehensive summary of methods for managing quality and continuous process improvements. The course objective is to develop an operational familiarity with contemporary methods found to be effective. Topics covered include statistical process control, quality function deployment, concurrent design, the house of quality, the Taguchi method, Six Sigma, lean and others. It also covers continuous process improvement methodologies and techniques. This course is intended for those students who do not plan to specialize in quality management.

3 semester hours

TECHNOLOGY MANAGEMENT 530 (TCMG/ MEEG 530)
Foundations of Manufacturing Management
The objectives of the course are to understand and apply concepts and techniques in manufacturing management. The course includes the management of people (both traditional and high performance systems), lean manufacturing techniques as used on the factory floor, and recent concepts such as Factory Physics. The course focuses on those issues that are important in supervising and managing a modern manufacturing operation.

3 semester hours

TECHNOLOGY MANAGEMENT 534 (TCMG/ MEEG 535)
Strategic Sourcing and Vendor Management
This course covers the rewards and risks of outsourcing and vendor management and identifies where outsourcing should be used and not used. The objectives of the course are to help students understand how to plan, direct, manage and more effectively participate in outsourcing initiatives in terms of the feasibility of outsourcing (off-shore, near-shore, rural-shore, best shore), vendor selection, contract negotiation, vendor management and evaluation, risk assessment and terminating outsourcing deals.

3 semester hours

TECHNOLOGY MANAGEMENT 559 (TCMG 559/ MGMT 560)
Foundation of Business Process and Operations Management
Students in this course apply the methods to projects of their own design and choosing, employing systems designed for application
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to process management issues. Emphasis is put on quantitative and data-based problem-solving and decision-making processes applied by the professional manager for the improvement of product or service development quality and customer satisfaction. Business process improvement techniques such as lean, Six Sigma and others will be covered.

3 semester hours

TECHNOLOGY MANAGEMENT 572 / MECHANICAL ENGINEERING 572 (TCMG/MEEG 572)
Production Technology and Techniques
This course will introduce up-to-date technology, techniques and systems of the global manufacturing industry. American manufacturing situation would be analyzed and Japanese manufacturing success is also explored. Comprehensive and readable description of manufacturing practice is researched.

3 semester hours

TECHNOLOGY MANAGEMENT/MECHANICAL ENGINEERING 573 (MEEG/TCMG 573/MKTG 565)
Supply Chain Management
This course aims at not only covering high-level supply chain strategy and concepts, but also to providing students with a solid understanding of the analytical tools, to understand supply chain design, planning, and operation driven the performance of a firm. It also conveys how supply chain drivers used on a conceptual level during supply chain design and operation leading to performance improvement.

3 semester hours

TECHNOLOGY MANAGEMENT/MECHANICAL ENGINEERING 574 (MEEG/TCMG 574)
Principles of Logistics
This course presents materials management, logistics theory and concepts in today’s manufacturing and commercial environments. It integrates all of the functional areas of the business as well as incorporating logistics into corporate operation. They are examined in light of how they interrelate with other functions for the firms.

3 semester hours

MECHANICAL ENGINEERING 575 (MEEG 575)
Manufacturing Strategy
This course provides the necessary strategic perspective for manufacturing managers’ sights and sustaining manufacturing excellence in the competitive manufacturing environment. The strategic perspective of manufacturing forms the approach that places these issues within the rightful context. It emphasizes the essential requirement to link with other functions in order to determine the best strategies for the business as a whole.

3 semester hours

TECHNOLOGY MANAGEMENT 577X (TCMG/MEEG 577X)
Lean Manufacturing
Lean manufacturing is a philosophy based on the elimination of waste in the production system. Use of various concepts such as flow, just-in-time, lead times, inventory turns, standardized work, pull systems, value streams, quick changeover, workplace organization, and visual controls are covered with the focus on improving manufacturing system performance.

3 semester hours

TECHNOLOGY MANAGEMENT 578X (TCMG 578X)
Six Sigma
Six Sigma is a methodology and set of quality management tools (especially statistical methods) used to improve the quality of process outputs, identifying and removing the causes of defects or errors and minimizing variability in manufacturing and business processes. This course teaches the core methods and philosophy of Six Sigma. Develop the leadership skills needed to drive Six Sigma and change effectively.

3 semester hours

Traditional Chinese Medicine

Acupuncture Practice and Techniques (APT):

The nine (9) acupuncture courses introduce students to the theoretical and practical information of acupuncture therapy. The student becomes proficient in the clinical applications of acupuncture, moxibustion, cupping, electrical stimulation, and bleeding techniques. The student learns to identify acupuncture points by anatomical location, palpation, and proportional measurement. The classification, function and indications for each acupuncture point are discussed and demonstrated. In addition to the twelve bilateral channels, two midline vessels and six other extra meridians, forbidden and contraindication of points are discussed. In addition, extra points, auricular points and other categories of acupuncture points are demonstrated and treatment techniques based on these extra meridians and points are discussed and practiced.

APT 511
Point Location I
This course will serve as the foundation of the acupuncture point selection series. Meridian theory using concepts of the Jing Luo system, including main and secondary vessels will be reinforced. This course provides the student with the knowledge and skills to physically locate acupuncture points of the lung, large intestine, stomach and spleen, heart and small intestine, urinary bladder, kidney, and pericardium channels. Students will focus on how to locate points effectively, accurately, and quickly as preparation for clinical application as well as college and national examinations. Students will also learn the major function(s) and indication(s) of the Lung, Large Intestine, Stomach, Spleen, Heart, Small Intestine, Urinary Bladder, Kidney and Pericardium channel points. Co-requisite/Prerequisite: ATD 513 Oriental Diagnosis 1. ABS 511 Anatomy 1.
1.5 lecture hours, 1 laboratory hour, 2 semester credits.

APT 523
Point Location II
This is a continuation of the previous course and will focus on the Triple Warmer, Gall Bladder, Liver, Governing Vessel (“Du”), Conception Vessel (“Ren”) and extra points. Additional instruction is given in regional point selection and point combinations. Prerequisites: ATD 513 Oriental Diagnosis 1, ABS 511 Anatomy 1.
1.5 lecture hours, 1 laboratory hour, 2 semester credits.

APT 512
Meridian Theory
Meridian (a.k.a. Channel) theory is the basis of diagnosis and acupuncture treatment. This course is designed to provide the necessary instruction and training for the student to be familiar with meridian theory including regular, extra and other meridian systems. Corequisites/Prerequisites: APT 512 Oriental Theory and ATD 513 Oriental Diagnosis 1.
2 lecture hours, 2 semester credits.

AWB 521
Clean Needle Technique
This course prepares the student for emergency situations both in and out of the office. CCAOM Clean Needle Technique and
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a review of Occupational Safety and Health Administration (OSHA) standards are presented. In addition the student will practice safe and proper needleling, moxibustion, electrical stimulation and cupping techniques. Allopathic treatments along with natural remedies for common complications of acupuncture and related therapies are discussed. CPR certification in emergency procedures is achieved. Prerequisites: none.
2 lecture hours, 2 semester credits.

APt 614
Acupuncture Techniques I
This course covers the basic principles of acupuncture treatment for diseases involved with different pathogenic factors, tissues and organs. Special point selection based on Root-Branch, Origin-End, Path of Qi, Five Element and Eight Parameter diagnoses are covered. Indications and contraindications of moxibustion, scalp acupuncture and electrical acupuncture stimulation are covered. Prerequisites: APT 511 and APT 523: Point Location I and II.
2 lecture hours, 2 laboratory hours, 3 semester credits.

APt 625
Acupuncture Techniques II
This course covers functions, indications and needling methods of the Well, Spring, Stream, River, Sea, Source, Luo, Xicleft, Back Shu, Front Mu and Lower He-Sea, Eight Influential, Eight Confluent and important crossing points. Continuing practice in needling, moxibustion and cupping techniques is included. In addition, the prevention and treatment of acupuncture complications is covered. Prerequisite: APT 614 Techniques I.
2 lecture hours, 2 laboratory hours, 3 semester credits.

APt 626
Auricular & Scalp Acupuncture
This course introduces the student to various forms of microsystem acupuncture, focusing on auricular and scalp systems. The student learns the respective maps of the scalp and ear, clinical applications and treatment strategies. Corequisite/Prerequisite: APT 614 Acupuncture Techniques I.
1 lecture hour, 1 semester credit.

APt 718
Pediatric Acupuncture
The special diagnostic and treatment skills required for the treatment of patients less than 12 years of age are discussed. The balance of safety for the patient and treatment efficacy is emphasized. Prerequisite: APT 625 Acupuncture Techniques II.
1 lecture hour, 1 semester credit.

APt 637
Japanese Acupuncture Techniques
This course covers the unique treatment strategies and protocols developed by Japanese acupuncture masters. Prerequisite: APT 614 Acupuncture Techniques I.
1 lecture hour, 1 semester credit.

Asian Medicine Theory, Diagnosis and Application (ATD):
The twelve (12) oriental medicine theory and diagnosis courses are designed to provide the student with an understanding of the scope, philosophy, theory and conceptual frame work of oriental medicine and how acupuncture specifically affects the body within the oriental treatment paradigms. Emphasis is placed on Traditional Chinese Medicine (TCM) diagnoses and effective treatment strategies.

ATD 511
Oriental History and Philosophy
The student studies the different eras of Chinese history and the effects on Oriental Medicine theories. This course includes the study of the development of Naturalism, Philosophical and Religious Taoism, Confucianism, and Buddhism and their contributions to Chinese Medicine. For each philosophy, the course examines how the philosophy views the human relationship to nature, and the human relationship to the universe. In addition, the impact of philosophy and religion on the oriental medical paradigm is explored. Prerequisite: none.
1 lecture hour, 0 laboratory hours, 1 semester credit.

ATD 512
Oriental Medical Theory
This course includes the classic theories of yin and yang and the Five phases that are fundamental to understanding the Oriental medical relationship between humans and the universe. Normal physiology is studied through the fundamental substances (Qi, Blood, Essence, Spirit and bodily fluids), and organs. The basic theory of illness and diagnosis using four examinations (sight, listening and smelling, palpation, and asking) and Eight parameters are covered. Prerequisites: Anatomy and Physiology.
2 lecture hours, 2 semester credits.

ATD 513
Oriental Diagnosis I
The basic theory and characteristics of the pathogenesis and pathogenic factors are covered including the seven emotions, disharmony of Yin and Yang, abnormalities in Qi, Blood, Spirit, Essence and Bodily fluids, and organ disharmonies are covered. Techniques in inquiry, palpation, tongue and pulse diagnosis are covered. Diagnoses incorporating the eight parameters as well as root and stem concepts are covered for each of the twelve zang-fu. Prerequisite/Co-requisite: ATD 512 Oriental Medical Theory.
2 lecture hours, 2 semester credits.

ATD 524
Oriental Diagnosis II
This course will provide the student with further understanding of Oriental Medicine diagnosis, expanding on concepts from Oriental Diagnosis I. Traditional Chinese Medicine organ diagnoses, eight principle and febrile disease diagnoses will be stressed. In addition, treatment principles and acupuncture treatments based on these diagnostic systems will be explored. Differential diagnoses of common disease entities will be explored. Students will also continue to practice pulse and tongue diagnosis. Prerequisite: ATD 513 Oriental Diagnosis I.
2 lecture hours, 2 semester credits.

ATD 515
Seminar 1
This course will help the student to negotiate their first year in the Acupuncture program. The student will be guided through overviews of Chinese Medicine as preparation for integrating material from the entire curriculum. The student will review and update Chinese Medical terminology as well as the range of resources and the different perspectives on this terminology and the concepts contained therein. Diagnostic practical skills such as pulse and tongue diagnosis will be reviewed in a practical group setting. In addition the student will apply concepts of information literacy and its use case studies. Prerequisites: none.
1.5 lecture hours, 1.5 semester credits

ATD 529
Seminar 2
This course will be a continuation of seminar
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one. The student will be guided through the application and integration of concepts and skills acquired in the first and second semester curricula. The student will apply these through the use of case studies and clinical examples. The basics of applying diagnosis and generation of treatment principles will be reinforced in a collegial setting. Group activities such as case analysis, pulse and tongue analysis and grand rounds will also be reviewed with a deepening understanding of clinical applications of such. Prerequisites: ATD 515.

1.5 lecture hours, 1.5 semester credits

ATD 618
Seminar 3

This course will help the student gain a deeper understanding of case study skills necessary to become an AOM clinical practitioner. The student will be guided through case study, case analysis and pattern differentiation as utilized in clinical practice as preparation for integrating material from the entire curriculum into the clinical setting. Case presentations and clinical skills utilizing a problem based learning format using TCM principles and evidence-informed clinical practice skills are emphasized. The foci of the case studies for this course are on mental/emotional disorders, patterns associated with emotional disorders, and the impact of emotional issues in the acupuncture clinic. In addition, the student will gain a basic understanding of the ethical and counseling issues surrounding licensed practice in the field of Traditional Chinese Medicine. Prerequisites: ATD 529.

1.5 lecture hours, 1.5 semester credits.

ATD 711
East-West Pathology

This course compares and contrasts diagnosis and treatment between Western and Oriental diagnoses. Western medical diagnosis of these diseases is incorporated so that the student is able to collaborate with western physicians. Major and common categories of diseases including respiratory tract, infectious, gastrointestinal, genitourinary and musculoskeletal diseases are covered. Prerequisite: ATD 513 Oriental Diagnosis I.

2 lecture hours, 2 semester credits.

ATD 715
Oriental Internal Medicine

This course focuses on the diagnosis and oriental treatment of major illness. Treatment planning includes acupuncture, qi gong, and massage. Diagnoses cover respiratory illnesses, gastrointestinal, genitourinary, gynecological, and psychological illnesses. Root-stem. Meridian, Substance and 5 Element treatments are included. Prerequisite: ATD 513 Oriental Diagnosis I.

2 lecture hours, 2 semester credits.

ATD 717
Advanced Tongue and Pulse Diagnosis

This course is designed to increase the diagnostic skills and clinical applications of these uniquely oriental diagnostic parameters. The student studies healthy and diseased tongues and pulses and discusses how findings in these areas change the treatment principles and strategies. Case studies from the clinical education are used to increase both depth and breadth of skill. Prerequisite: ATD 524: Oriental Diagnosis II.

1 lecture hour, 1 semester credit.

ATD 727
Case Studies 1

The student will be guided through case study, case analysis and pattern differentiation as utilized in clinical practice as preparation for integrating material from the entire curriculum into the clinical setting. Case presentations and clinical skills are emphasized through a problem based learning format using TCM principles as the foundation. Emphasis for this class is on cases associated with problems of fluid dynamics and chronic pain, which are frequent chief complaints in the AOM clinical setting. Prerequisite: ATD 529 Seminar 2.

1 lecture hour, 1 semester credit.

ATD 728
Case Study Organization and Applications.

Students learn to transition from the development of pattern diagnosis to TCM treatment principles which then lead to point and modality applications. Emphasis is placed on an accurate assignment of symptoms to pattern diagnosis; logical treatment principles reflecting the priorities and totality of the patterns diagnosis; and the most efficacious acupuncture point and adjunctive modality prescriptions to help the patient achieve health. Prerequisite: ATD 529 Seminar 2.

1 lecture hour, 1 semester credit.

ATD 729
Acupuncture Gynecology

This course is designed to familiarize the student with oriental diagnosis and acupuncture treatments of common gynecologic conditions. Special emphasis is placed on understanding those points forbidden to needle or moxa in cases where the patient’s pregnancy status is unknown. Prerequisite: ATD 524: Oriental Diagnosis II.

1 lecture hour, 1 semester credit.

Western Biomedicine (AWB)

The twelve (12) western biomedical courses are designed to train the student fully about western medical terms, history taking, physical exam and diagnostic skills. The student learns how to make the appropriate referral and consultation, as well as the clinical relevance of laboratory and diagnostic tests and procedures.

ABS 511
Anatomy 1

This course provides an in-depth study of the macroscopic human anatomy and covers the structure of the trunk and neck regions. Clinical aspects of the vascular and neurological relationships of these regions are emphasized. Instruction includes lectures and interactive media software. Prerequisite: none.

4 lecture hours, 4 semester credits.

ABS 522
Anatomy 2

This course is a continuation of Anatomy 1 and covers the structure of the head and extremities. Clinical aspects of the neurological and vascular relationships of these regions is emphasized. Prerequisite: ABS 511 Anatomy 1.

4 lecture hours, 4 semester credits.

ABS 515
Physiology 1

This course emphasizes the function of cellular structures which regulate homeostasis as well as their role in cell division and genetic control of protein synthesis. Emphasis is placed on the role of the cell membrane in the control of cellular events. The effects of physiology on hormones, their role in homeostasis, and the functional changes associated with homeostasis are considered. Prerequisite: none.

2 lecture hours, 2 semester credits.

ABS 525
Physiology 2

This course is a study of physiology at the organ and systems level. Included is the study of the circulatory, respiratory, renal, cardiovascular, gastrointestinal and urogenital systems. Also included is the study of the endocrine
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system and its interrelationships with various organs and systems. There is an integration of normal physiology with pathophysiology and clinical concepts. Prerequisite: ABS 515.

2 lecture hours, 2 semester credits.

AWB 623
Pharmacology
This course examines the most commonly used pharmacologic agents to be encountered in the clinical setting. The general principles of pharmacology (pharmacodynamics and pharmacokinetics) are covered. Uses and side effects of antibiotics, anti-inflammatory agents, hormones and cardiac drugs are surveyed. Drug-nutrient and drug-herb interactions are discussed. Prerequisite: none.

1 lecture hour, 1 semester credit.

AWB 621
Medical Ethics
This course is designed to provide the student with a basic understanding of the ethical issues surrounding practice in any medical field. Upon completion of this course, the student will be able to identify concepts of medical and professional ethics as they apply to the practice of health care. Prerequisites: none.

1 lecture credit, 1 semester credit.

ACS 511
Evidence Informed Practices
The basic principles of clinical and laboratory research are examined with a special emphasis on the applications of acupuncture and oriental techniques in the research setting. Application of research to case evaluation will be emphasized. Prerequisites: none.

1 lecture credit, 1 semester credit.

ACS 611
Pathology 1
This course is a study of the pathophysiologic process and how this process alters the gross, microscopic and clinical manifestations of disease. Basic pathologic processes of inflammation, repair, degeneration, necrosis, immunology and neoplasia are presented. Prerequisite: ABS 525 Physiology 2.

2 lecture hours, 2 semester credits.

ACS 624
Pathology 2
This course is the continuation of the pathologic processes of various diseases. This course emphasizes the basis of systemic diseases of the cardiovascular, respiratory, gastrointestinal, urogenital, endocrine, hepatobiliary, renal and pancreatic systems. Prerequisite: ACS 611 Pathology 1.

4 lecture hours, 4 semester credits.

ACS 612
Clinical Diagnosis 1
This course covers the techniques used for physical examination of various systems of the body. Skills taught develop an appreciation for normal variations and abnormalities associated with disease states. The student is taught to recognize the signs and symptoms of common diseases. Prerequisites: ABS 511, ABS 521, ABS 515, ABS 252.

3 Lecture hours, 2 lab hours, 4 semester credits.

ACS 623
Clinical Diagnosis 2
This course is a continuation of Clinical Diagnosis 1. Prerequisite: ACS 612.

3 lecture hours, 2 lab hours, 4 semester credits.

ACS 724
Public Health
This course covers current environmental and public health concerns with an emphasis on the role of the acupuncturist in these issues. The course integrates health with diet, water and air pollutants, noise and substance abuse. Recognition of major communicable diseases is included. Prerequisite: ABS 525 Pathology 2.

2 lecture hours, 2 semester credits.

ACS 613
Lab Diagnosis
This course introduces the student to the appropriate use and interpretation of laboratory tests. Prerequisites: ABS 521 and ABS 525.

2 lecture hours, 2 semester credits.

ANT 521
Nutrition
This course provides the foundation for therapeutic nutrition. It explores the biochemistry of macronutrients as well as vitamins and minerals. Deficiencies, toxicities, therapeutic uses and appropriate doses are examined. An assessment of dietary needs and the application of therapeutic nutrition in treating individual diseases and syndromes are also taught. Prerequisites: none.

3 lecture hours, 3 semester credits.

Asian/Chinese Herbology (ACH)

The ten (10) courses in Chinese Herbology offer the student a thorough understanding of Chinese Materia Medica, Classical and Patent formulas and modifications, and the clinical application of Chinese herbs and formulae.

The student becomes proficient in the theories pertinent to Chinese Herbal Medicine and the clinical applications of Chinese materia medica for a wide variety of clinical situations and patient populations. At the completion of the 10 course survey, students will have learned over 300 individual herbs and over 150 different classical and patent formulae.

ACH 511
Chinese Formulae for Channel Obstruction Syndromes
This course will indicate Chinese Herbal Formulae for commonly encountered bi syndromes and channel obstruction syndromes (pain syndromes). This course will examine in detail at least 20 different TCM formulae and 35 different individual herbs in the TCM materia medica. In the course of this presentation: a) an explanation of the Traditional Chinese Medicine pathomechanism for various pain complaints associated with bi syndromes and channel obstruction syndromes will be provided; b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat based on treatment principles will be provided c) possible interactions and contraindications between commonly utilized drugs for obstruction syndromes & Chinese Herbal Formulae will be provided; d) Summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal Patent Remedies & conventional care will be examined. Prerequisites: ATD 524 Oriental Diagnosis II.

2 lecture credits, 36 hours.

ACH 512
Chinese Herb Formulae for Common Ailments
This course will cover frequently prescribed Chinese Herbal Formulae for the ten most commonly encountered diseases in a TCM ambulatory practice. At least 20 formulae and 35 discrete herbs will be covered in depth. In the course of this presentation: a) an explanation of the Traditional Chinese Medicine pathomechanism for discrete diseases will be provided; b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat the disease will be provided; c) possible interactions and contraindications between conventional/drug treatments & Chinese Herbal Patent Formulae will be provided; and d) Summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal formulae & conventional care will be examined. Prerequisites: none.
Traditional Chinese Medicine

sites: ATD 524 Oriental Diagnosis II.
2 lecture credits, 36 hours.

ACH 523
Chinese Herbal Theories & Triple Burner Theories
This course will describe and analyze the twenty major categories that Chinese Herbal Formulæ are categorized into for the Qi, Blood & Body Fluids, Zang-Fu & Channel Theory Paradigms in the modern TCM Materia Medica. Within these categories, the fundamental treatment strategies that these formulæ employ, the role that individual herbs within the formulæ play to accomplish the treatment strategy, and the accessibility of patent formulæ for these formulæ will be explored. At least 20 herbal formulæ and 35 different herbs will be explored in depth including: a) an explanation of the Traditional Chinese Medicine pathomechanism for various complaints will be provided, b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat based on treatment principles will be provided c) possible interactions and contraindications between commonly utilized drugs for obstruction syndromes & Chinese Herbal Formulæ will be provided, d) Summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal Patent Remedies & conventional care will be examined. Prerequisites: ACH 512
1.5 lecture credits, 27 hours.

ACH 524
Chinese Herbs for Exogenous Disease Patterns
This Chinese Herbal Formulæ course will address Exogenous disease including San Jiao, 6 Channel (Shang Han Lun), and 4 portion (Wen Bing) diseases. At least 20 herbal formulæ and 35 different herbs will be explored in depth including: a) an explanation of the Traditional Chinese Medicine pathomechanism for various complaints will be provided, b) the mechanisms through which the Chief, Deputy, Assistant & Envoy Herbs within the formula treat based on treatment principles will be provided c) possible interactions and contraindications between commonly utilized drugs for obstruction syndromes & Chinese Herbal Formulæ will be provided, d) Summaries of the most up-to-date and significant evidence-based research on both Chinese Herbal Patent Remedies & conventional care will be examined. Prerequisites: ACH 512
2.5 lecture credits, 45 hours.

ACH 635
Clinical Application of Herbs 1
This course will amplify and reiterate content from ACH 511, ACH 512, ACH 523 and ACH 524. The student will explore the traditional Chinese Medicine Materia Medica in depth and learn to discriminate between herb categories, their general applications and associated Treatment Principles and individual, unique applications, signs and symptoms. The student will explore at least 100 herbs including reiterating and amplifying content from the previous courses. This course will focus on Herbs that Release the exterior, Herbs that Clear Heat, Downward Draining Herbs, Herbs that Drain Dampness and Herbs that Dispel Wind-Dampness. This course will serve as partial basis for the following formulæ courses. Prerequisites: ACH 511, ACH 512, ACH 523
2 lecture credits, 36 hours.

ACH 636
Chinese Formulae 1
This course will be a continuation and amplification of the previous herbal curriculum (ACH 511, ACH 512, ACH 523, ACH 524) with an emphasis on herbal formulæ. The student will explore at least 80 formulæ including reiterating and expanding content from previous courses. This course will focus on Formulae that Release the exterior, Clear Heat, Harmonize, Moisten Dryness, Clear Damp Heat, Transform and Leach Dampness, and Dispel Wind-Dampness. The student will learn the name, actions, indications, cautions and contraindications of the classical base formulæ according to the traditional categorization based on treatment principles. In addition the student will explore the traditional structure of herbal formulæ as a prelude to formula modification (general, assistant, etc.). Prerequisites: ACH 511, ACH 512, ACH 523, ACH 524
2 lecture credits, 36 hours.

ACH 617
Clinical Application of Herbs 2
This course will amplify and reiterate content from ACH 511, ACH 512, ACH 523 and ACH 524. The student will explore the traditional Chinese Medicine Materia Medica in depth and learn to discriminate between herb categories, their general applications and associated Treatment Principles and individual, unique applications, signs and symptoms. The student will explore at least 100 herbs including reiterating and amplifying content from the previous courses. This course will focus on Herbs that Warm the Interior and Expel Cold, Herbs that Tonify the Qi, Herbs that Tonify the Blood, Herbs that Tonify the Yang, Herbs that Tonify the Yin, Herbs that Stabilize and Bind, Substances that Anchor, Settle and Calm the Spirit, Aromatic Substances that Open the Orifices, Substances that Extinguished Wind and Stop Tremors, Herbs that Expel Parasites and Substances for External Application. This course will serve as partial basis for the formulæ courses. Prerequisites: ACH 617
2 lecture credits, 36 hours.

ACH 619
Chinese Formulae 2
This course will be a continuation and amplification of the previous herbal curriculum (ACH 511, ACH 512, ACH 523, ACH 524) with an emphasis on herbal formulæ. The student will explore at least 80 formulæ including reiterating and expanding content from previous courses. This course will focus on Formulae that Warm and Disperse Cold, Promote the Movement of Qi, Invigorate Blood, Clear Heat and Stop Bleeding, Transform Phlegm and Reduce Food Stagnation. The student will learn the name, actions, indications, cautions and contraindications of the classical base formulæ according to the traditional categorization based on treatment principles. In addition the student will explore the traditional structure of herbal formulæ as a prelude to formula modification (general, assistant, etc.). Prerequisites:
Traditional Chinese Medicine

ACH 636  
2 lecture credits, 36 hours.

ACH 641  
Chinese Formulae 3  
This course will be a continuation and amplification of the previous herbal curriculum (ACH 511, ACH 512, ACH 523, ACH 524) with an emphasis on herbal formulae. The student will explore at least 80 formulae including reiterating and expanding content from previous courses. This course will focus on Formulae that Tonify, Stabilize and Bind, Nourish the Heart and Calm the Shen, Open the Orifices and expel Parasites. The student will learn the name, actions, indications, cautions and contraindications of the classical base formulae according to the traditional categorization based on treatment principles. In addition the student will explore the traditional structure of herbal formulae as a prelude to formula modification (general, assistant, etc.). External formulae for pain syndromes will be addressed as well as special preparation ("pao-zhi"). Prerequisites: ACH 619  
2 lecture credits, 36 hours.

Herbal Medicine Survey (AHM)  
The four (5) courses in herbal medicine and dietetics give the student a basic introduction to Chinese pharmacy and dispensary practices, common OTC North American botanicals, the ethical consideration of utilizing sparse resources, and TCM clinical diet therapies. Information in the western botanical and pharmacy classes provides clear information regarding indications, contraindications and drug-herb interactions. The ethical and ecological impacts of TCM materia medica on the health of the individual and the world are explored. In addition, the two courses in dietetics and nutrition help the student understand the role of nutrition in patients' health. (Note that the course in western nutrition is listed under ADT 513 Oriental Diagnosis I.)

AHM 635  
Pharmacognosy and Pharmacology of Chinese Herbs  
Chinese material medical are often prescribed in complex formulae. Understanding the chemistry, interactions, extraction methodology, and drug interactions allows AOM practitioners better insights to possible adverse effects, from drug-herb interactions, herb toxicities to lack of expected (or any) outcomes from prescribed formulæ. Several recorded incidents of adverse reactions have occurred to Chinese herbs over the past 12 years. In most cases, the incidents have involved multiple patients consuming the same or similar substance, rather than isolated case reports. It is important to review the unique aspects of Chinese medicine which are of relevance to understanding these issues. Prerequisites: ACH 523 Chinese Herbal Theories & Triple burner theories.  
1 lecture credit, 18 hours.

AHM 616  
Ethical and ecological considerations of Chinese materia medica  
The traditional practice of using endangered species (plant and animal) is controversial within TCM. Comprehensive Chinese herbal textbooks often discuss substances derived from endangered species, emphasizing alternatives. Poaching and black market issues with animal products, particularly tiger bone, rhinoceros horn, seahorse and bear bile have all raised ethical and ecological concerns in the use of Traditional Chinese formulae. In this course, we will discuss the ethical and ecological impacts of TCM materia medica on the health of the individual and the world. Prerequisites: none  
1 lecture credit, 18 hours.

AHM 613  
Oriental Dietetics  
This class introduces the student to the eastern understanding of how food influences human health. Foods and food products are surveyed according to Asian categorization. Food groups are categorized by nature, temperature, taste, element, indications and contraindications. Treatment of the major categories of organ (zang-fu) disorders using foods and food combinations are covered. Prerequisite: ADT 513 Oriental Diagnosis I.  
2 lecture hours, 2 semester credits.

AHM 521  
Botanical Medicine 1  
This course comprises a survey of plant and plant preparations most commonly used in Western traditions. The actions of the plant and plant products, as well as drug-herb interactions are considered. Prerequisites: ABS 515, ACS 611.  
3 lecture hours, 3 semester credits

Movement, Respiration and Bodywork Studies (AMR)  
The seven (7) movement and respiration courses are designed to enhance the student’s personal and energetic development. The student will be exposed to a wide variety of Asian movement practices that can be used to maintain their own and their patients' health care needs. In addition to the movement studies, two courses in soft tissue treatment techniques are offered.

AMR 511  
Taijiquan 1  
This introductory course in therapeutic movement explores how musculoskeletal alignment, breathing, and mental awareness affect the meridians through practice of this traditional exercise. Prerequisite: none.  
0 lecture hours, 1.5 laboratory hours, 1 semester credit.

AMR 522  
Taijiquan 2  
This is a continuation of Taijiquan 1. Prerequisite: AMR 511 Tai Ji Chuan 1.  
0 lecture hours, 1.5 laboratory hours, 1 semester credit.

AMR 613  
Qigong 1  
This course teaches exercises designed to regulate specific meridians, muscles and joints as well as how to choose, integrate and teach the appropriate exercises in a clinic setting. Prerequisite: AMR 522: Taijiquan 2.  
0 lecture hours, 1.5 laboratory hours, 1 semester credit.

AMR 624  
Qigong 2  
This course is a continuation of Qi Gong 1. Prerequisite: AMR 613 Qi Gong 1.  
0 lecture hours, 1.5 laboratory hours, 1 semester credit.

AMR 627  
Palpation/Massage  
In this course, students integrate knowledge of anatomy with skills in palpation and massage.
Traditional Chinese Medicine

Introductory soft tissue technique is taught as a way to assess muscle, acupoints and meridians as well as provide a practical therapeutic treatment. Prerequisite: ABS 522 Anatomy 2. 1 lecture hour, 2 laboratory hours, 2 semester credits.

AMR 715
Oriental Massage I
The student learns Tui Na soft tissue manipulation technique as well as its history, theory, application, and indications. Treatments for back pain and conditions of the upper limb are the primary focus. Prerequisite: AMR 513 Oriental Diagnosis 1 and APM 621: Palpation/ Massage. 1 lecture hour, 2 laboratory hours, 2 semester credits.

AMR 726
Oriental Massage II
This course is a continuation of Oriental Massage 1. Tui Na treatments for the lower leg and internal conditions are the primary focus. Prerequisite: AMR 715 Oriental Massage 1. 1 lecture hour, 2 laboratory hours, 2 semester credits.

Counseling, Communications and Practice Management

The two (2) specific courses in this area enhance the students' clinical skills, both in terms of diagnosing addressing patients' psychological health and in the area of best business practices. In addition, the courses of AWB 621 Medical Ethics, ACS 511 Evidence informed Clinical Practices, and ATD 618 Seminar 3 (cross listed in the ATD section) help students learn the fundamental skills needed for private practice, ethical and legal considerations in health care and special considerations for practice in integrated care settings.

APS 621
Psychological Assessment
The primary focus of this course is the diagnosis of the various psychiatric diseases according to the Diagnostic and Statistical Manual of Mental Disorders. Included are psychological assessment considerations and treatment modalities. Prerequisites: none. 2 lecture hours, 2 semester credits.

APP 721
Practice Management
Students are taught the current procedural practices for the operation of a private practice. In addition, the practical aspects of operating a practice as a small business are discussed. Students are encouraged to begin thinking about their personal career path as a complementary medicine practitioner in private practice, group practice, hospital-based practice or as an AOM educator. Prerequisites: none. 2 lecture hours, 2 semester credits.

Clinical Services (ACS)
The five (5) acupuncture clinical services courses and four (4) Chinese Herbology clinical services (for a total of nine – 9 – clinical experience courses) are designed to allow the student to develop clinical, interpersonal communication and decision-making skills. In addition, students learn professional conduct, efficiency and confidence in dealing with patients on a regular basis. From inception through the end of clinical training, the student has the opportunity to observe and work with advanced TCM practitioners as well as other health care professionals. This allows the student to understand how and when to make appropriate referrals. Clinical rotations are available in the UBAI on-campus clinic as well as in community and hospital outreach clinical sites. By the end of clinical training, each student will have seen a minimum of 575 patient visits and will have completed 1190 hours of clinical training (850 hours in the acupuncture/general clinical care; 360 in the herbology clinic).

ACS 711
Preceptorship I
The students observe and administer care in established acupuncture facilities under the supervision of licensed physicians and acupuncturists. This exposure to a variety of clinical settings helps prepare the student for both private practice and integrative patient care. Prerequisite: Completion of all first year courses. 0 lecture hours, 4 laboratory hours, 2 semester credits, 75 clock hours total.

ACS 722
Preceptorship II
This is a continuation of ACS 671. Students increase their clinical skills working under a variety of health care professionals, all of whom must have the appropriate credentials to practice in the field of acupuncture. Prerequisite: ACS 671. 0 lecture hours, 4 laboratory hours, 2 semester credits, 75 clock hours total.

ACS 631
Clinical Education I
Under the supervision of licensed faculty members, the interns start by observing patients for 30 clinic hours, then move into the area of direct patient care. All patient diagnoses and management plans are reviewed and approved by a clinic faculty member prior to the initiation of patient care. The student will begin to practice clean needle technique, removal and disposal of needles. The student will acquire proficiency in tongue and pulse diagnosis. Prerequisite: Pass Clinical Entrance Exam. 0 lecture hours, 12 laboratory hours, 8 semester credits, 245 clock hours total.

ACS 712
Clinical Education II
Students continue to administer care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. Eligibility for the rotation is successful completion of the previous clinical rotation. Prerequisite: ACS 631 Clinical Education 1. 0 lecture hours, 12 laboratory hours, 8 semester credits, 215 clock hours total.

ACS 723
Clinical Education III
Students continue to administer care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. Eligibility for the rotation is successful completion of the previous clinical training rotation. Prerequisite: ACS 712 Clinical Education 2. 0 lecture hours, 12 laboratory hours, 8 semester credits, 220 clock hours total.

Clinical Education (ACC)
The four (4) Chinese Herbology clinical services are designed to allow the student to develop clinical, interpersonal communication and decision-making skills. From inception through the end of clinical training, the student has the opportunity to observe and work...
with advanced TCM practitioners. Clinical rotations are available in the UBAI on-campus clinic as well as in community outreach clinical sites. By the end of clinical training, each student will have seen a minimum of 200 patient visits and will have completed 360 hours in the herbology clinic.

ACC 611
**Chinese Herbal Clinic 1**
Under the supervision of licensed faculty members, the interns start by observing patients for 20 clinic hours, then move into the area of direct patient care. All patient diagnoses and management plans are reviewed and approved by a clinic faculty member prior to the initiation of patient care. The student will begin to prescribe individual herbs and formulae for patient care. The student will acquire proficiency in TCM diagnostic techniques, as well as in understanding when specific herbs or formulae may not be prescribed based upon possible herb-drug interactions. Prerequisite: 0 lecture hours, 4 lab credits, 130 clock hours total.

ACC 632
**Chinese Herbal Clinic 2A**
Students continue to administer Chinese herbal care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. Eligibility for the rotation is successful completion of the previous clinical rotation. Prerequisite: ACC 611 Chinese Herbal Clinic 1. 0 lecture hours, 2 lab credits, 65 clock hours total.

ACC 723
**Chinese Herbal Clinic 2B**
Students continue to administer Chinese herbal care to patients under the supervision of licensed faculty. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. In addition to utilizing prepared formulae, student interns now begin to mix herbal powders in individualized formulae. Eligibility for the rotation is successful completion of the previous clinical rotation. Prerequisite: ACC 611 Chinese Herbal Clinic 1. Pre/Co-Requisite ACC 632 Chinese Herbal Clinic 2A. 0 lecture hours, 2 lab credits, 65 clock hours total.

ACC 724
**Chinese Herbal Clinic 3**
Students continue to administer care to patients under the supervision of licensed faculty. Students will integrate herbal therapies with dietary advice and qi enhancement techniques. Students are monitored as to their progress toward completing the qualitative and quantitative requirements necessary for the successful completion of the program. Eligibility for the rotation is successful completion of the previous clinical rotation. Prerequisite: ACC 723 Chinese Herbal Clinic 2B. 0 lecture hours, 3 lab credits, 100 clock hours total.
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Alumni are always encouraged to visit the campus to attend events or just to indulge in nostalgia. An active and committed volunteer Board of Directors continues to manage the Association’s affairs, with a number of activities planned each year. From athletic events to regional receptions and celebrations of alumni achievements, the calendar is always full.

A university can only measure its success through the achievements of its alumni. The University of Bridgeport boasts a plethora of prominent graduates. They serve as corporate CEO’s and university presidents, automobile designers, commissioners of education, political leaders, television stars and prominent athletes. Their accomplishments reflect well on their alma mater, which in turn extends its gratitude.

We would like to hear from you. Please email us at alumni@bridgeport.edu or call us at 203-576-4133.
The Student Right-to-Know and Campus Security Acts
And Family Educational Rights and Privacy Act (FERPA)

The Student Right-to-Know and Campus Security Acts

The University is in compliance with the Student Right-to-Know Act of 1990 and Campus Awareness and Campus Security Acts of 1990. Reports, disclosures and other data are available in the University’s Student Handbook, the Key to U.B., the Campus Public Safety Office and/or other official University publications.

The University of Bridgeport Campus Public Safety Office keeps statistics concerning the occurrence on campus of certain criminal offenses, which were reported to them or to the local police. These statistics are published and distributed annually to the entire University of Bridgeport campus community, and to other interested parties.

For further information, contact the Director of Campus Security, Dean of Students, or the University Attorney.

FERPA

The University of Bridgeport has designated the following types of information as directory information which may be disclosed without consent: Student’s full name and alias, if applicable; address; University assigned email address; telephone listings; major field of study; degrees and awards received; dates of attendance; classification; participation in officially recognized sports or activities; weight and height of members of athletic teams; photographs; and enrollment status (undergraduate or graduate, full-time or part-time).

Parents or eligible students have the right to refuse to permit the University of Bridgeport to designate any or all of those types of information as directory information with respect to a particular student, thereby preventing its disclosure as directory information. Forms indicating the intent of the parents or eligible students to request information be withheld can be obtained in the Office of the Registrar, and must be submitted within the first five class days to be effective to avoid disclosure.

Notification of Rights Under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Among these rights are:

1. Among these rights are to inspect and review the educational records within 45 days of the day the University receives the request for access. Students should submit to the Registrar a written request that identifies the record(s) they wish to inspect. The University Registrar will make arrangements for access and notify the student of the time and place where records may be inspected. If the Registrar does not maintain the records requested the Registrar will advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of their educational record that he/she believes is in accurate or misleading. Students should ask the University to amend the record that they believe is inaccurate or misleading. They should write the Registrar, clearly identify the part of the record that they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is:

- A person elected to the Board of Trustees.
- A person or entity employed by or under contract to the University to perform a special task, such as security, building and grounds, information technology, food service, an attorney, auditor, collection agency or other outside vendor.
- A student serving on an official committee, such as a disciplinary or grievance committee, or who is assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official is:

- Performing a task that is specified in his or her position description or contract agreement, or is customarily performed by such person at the university.
- Performing a task related to a student’s education.
- Performing a task related to the discipline of a student.
- Providing a service or benefit relating to the student or student’s family, such as health care, counseling, job placement or financial aid.
- Maintaining the safety and security of the campus.

Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The Dean of Students or designee has the authority to notify parents or guardians when dependent students under the age of 21 are found to be in violation of the University alcohol and/or drug policies for: 1) possession of a keg or large volume, 2) dispensing alcohol to a minor, 3) possession or distribution of controlled substances, 4) under age possession or open container in a public space for a second time; or in cases where a student is subject to residence hall separation, suspension, expulsion or required emergency medical care because the student became ill from the consumption of alcohol and/or drugs. The notification is permissive and at the discretion of the university. The notification of parents or guardians is indicated when: 1) the violat-
tion involved harm or threat of harm to persons or property, or 2) the violation involved an arrest in which the student was taken into custody.

Nothing in these guidelines shall prevent university officials from notifying parents or guardians of a health or safety emergency, or when a student, under the age of 21 is found to have violated university policy with respect to the use and/or consumption of alcohol or drugs. Whenever possible, students will be informed that parental notification is planned in advance of their parents receiving the notice. The notification of parents is simply an act of notice and is not subject to appeal.

The Dean of Students or designee may disclose the name and a summary of the information regarding the final outcome of a hearing if the student is found to have committed an act of violence.

Students may file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
US Department of Education
400 Maryland Avenue, S.W.
Washington, DC 20202-4605

FERPA: Notice for Directory Information

The Family Educational Rights and Privacy Act (FERPA), a Federal law, requires that the University of Bridgeport with certain exceptions, obtain your written request prior to the disclosure closure of personally identifiable information from a student's educational records. However, the University may disclose appropriately designated “directory information” without written consent. Examples include:

- The annual yearbook;
- News releases
- Honor roll or other recognition lists;
- Graduation programs; and
- Sports activities sheets, such as weight and height of team members

Directory information which is information that is generally not considered harmful or an invasion of privacy if released, can also be disclosed to outside organizations. Outside organizations include, but are not limited to companies that manufacture class rings or publish yearbooks.

If you do not wish the University to disclose directory information without prior written consent you must notify the University by the 10th day of class in a semester. The student must contact the Registrar’s Office, located on the Garden Level of Wahlstrom Library and fill out the appropriate paperwork. If a student makes such a request, the University has the option or either (1) withholding all information of the types specified and omitting the student’s name from any published list involving such information or (2) seeking the student’s written permission to release the information.

The University of Bridgeport has designated the following information as directory information:

- Student’s name
- Address
- University electronic mail address
- Telephone listing
- Date and place of birth
- Hometown
- Citizenship
- Family relations
- Marital status
- Previous schools or training
- Academic year
- Dates of attendance and/or graduation
- Major field of study or academic specialty
- Instructors and courses
- Participation in sports and other officially recognized activities (including position, role, or function)
- Membership in officially recognized honorary, professional, academic, or social organizations
- Academic honors or achievements
- Special awards or recognitions received, scholarships, fellowships, assistantships
- Offices or honorary positions to which elected or appointed
- Eligibility for and performance records in athletics or other recognized forms of competition

- Height and weight of members of athletic teams
- Place and nature of employment
- Post-graduation plans
- Positions or achievements
- Hobbies, interests, and community activities
- Publications or papers presented
- Title of honors or graduate thesis
- For students seeking employment on job interviews, such additional information as has been furnished or cleared by the student with the understanding that it will be used in connection with applications or employment inquiries

Religious affiliation, if volunteered by the students, will be revealed to the campus ministry, local churches, synagogues, and mosques.

Disclosure Information and Complaint Procedure


As an academic community, the University of Bridgeport seeks to practice constructive criticism. The University invites its students to bring issues of concern to the Dean of Students and/or the University's academic officers. Students also may bring unresolved complaints to the State of Connecticut, Office of Higher Education. The contact for that office is as follows:

Connecticut Office of Higher Education
www.ctohe.org
Patricia Santoro
Director of Academic Affairs
Office of Financial and Academic Affairs
Higher Education
860-947-1822
PSantoro@ctohe.org

Further Information
Further information can be found at: www.sheco.org.
Directions to the University of Bridgeport

Connecticut Turnpike (I-95) Exit 27

I-95 SOUTH (TOWARD NEW YORK)
Take Exit 27. At the bottom of the ramp, turn left onto Lafayette Street. At the first light, turn left onto South Frontage Road and bear right. At the next light, turn right (by Harbor Yard Stadium and Arena) onto Broad Street. Proceed approximately one mile south, Broad Street turns right into Waldemere Avenue. At the first stop sign, turn right onto Park Avenue (arches to Seaside Park will be on your left). Go one block and turn right on Linden Avenue. Visitor parking is on left.

I-95 NORTH (TOWARD NEW HAVEN)
Take Exit 27 and proceed straight off the exit ramp, bear right. At the fourth light, turn right (by Harbor Yard Stadium and Arena) onto Broad Street. Proceed approximately one mile south, Broad Street turns right into Waldemere Avenue. At the first stop sign, turn right onto Park Avenue (arches to Seaside Park will be on your left). Go one block and turn right on Linden Avenue. Visitor parking is on left.

Merritt Parkway (Route 15)

SOUTH ON ROUTE 15 (TOWARD N.Y.)
Take Exit 52 (South fork) and bear left to Route 8/25 Connector to Exit 1 (Prospect Street/Myrtle Avenue). At the bottom of the ramp take a right onto Prospect Street to Park Avenue. Take a left on Park Avenue. Proceed South on Park Avenue, approximately one-half mile to the campus. Wahlstrom Library is on your left.*

NORTH ON ROUTE 15 (FROM N.Y.)
Take Exit 495 (South) to Route 25/8 Connector to Exit 1 (Prospect Street/Myrtle Avenue). At the bottom of the ramp take a right onto Prospect Street to Park Avenue. Take a left on Park Avenue. Proceed South on Park Avenue, approximately one-half mile to the campus. Wahlstrom Library is on your left.*

Directions from Campus

(Due to long-term construction I-95, the following are recommended routes back to I-95 N & S and Routes 8 and 25 N)

TO CONNECTICUT TURNPIKE (I-95)
From University of Bridgeport campus, travel North for one mile on Park Avenue. Take a right onto Washington Avenue. Follow signs to I-95.

TO ROUTES 8 AND 25 NORTH
From University of Bridgeport campus, travel North for one-half mile on Park Avenue. Take a right onto Prospect Street. Follow signs to Routes 8 and 25 North.

SOUTH ON ROUTES 8 AND 25
Take Exit 1 (Prospect Street/Myrtle Avenue). Continue straight off the exit ramp until the third traffic light, turn left onto South Frontage Road and bear right. At the third traffic light, turn right (by Harbor Yard Stadium and Arena) onto Broad Street. Proceed approximately one mile south, Broad Street turns right into Waldemere Avenue. At the first stop sign, turn right onto Park Avenue (arches to Seaside Park will be on your left). Go one block and turn right on Linden Avenue. Visitor parking is on left.

*Office of Admissions is on the 6th floor.
**Building List**

<table>
<thead>
<tr>
<th>Building</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Arnold Bernhard Arts &amp; Humanities Center</td>
</tr>
<tr>
<td>1</td>
<td>Wahlstrom Library</td>
</tr>
<tr>
<td>2</td>
<td>John J. Cox Student Center</td>
</tr>
<tr>
<td>4</td>
<td>Bookstore</td>
</tr>
<tr>
<td>3</td>
<td>Mandeville Hall</td>
</tr>
<tr>
<td>7</td>
<td>Marina Dining Hall</td>
</tr>
<tr>
<td>32</td>
<td>Norseman Hall</td>
</tr>
<tr>
<td>25</td>
<td>North Hall</td>
</tr>
<tr>
<td>15</td>
<td>Wheeler Recreation Center</td>
</tr>
<tr>
<td>26</td>
<td>South Hall</td>
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<tr>
<td>27</td>
<td>Health Sciences Building</td>
</tr>
<tr>
<td>23</td>
<td>Carstensen Hall</td>
</tr>
<tr>
<td>29</td>
<td>College of Chiropractic</td>
</tr>
<tr>
<td>19</td>
<td>Cortright Hall</td>
</tr>
<tr>
<td>33</td>
<td>Charles A. Dana Hall of Science</td>
</tr>
<tr>
<td>28</td>
<td>Eleanor Naylor Dana Building</td>
</tr>
<tr>
<td>30</td>
<td>Harvey Hubbell Gymnasium</td>
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**Dormitories**

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<tr>
<td>8</td>
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<td>24</td>
<td>Bodine Hall</td>
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<td>17</td>
<td>Chaffee Hall</td>
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<td>16</td>
<td>Cooper Hall</td>
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<td>27</td>
<td>Health Sciences Building</td>
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<tr>
<td>14</td>
<td>Schine Hall</td>
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<td>Seeley Hall</td>
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**Function**

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<thead>
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<td>Academic Resource Center</td>
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<tr>
<td>(5th floor)</td>
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<tr>
<td>Acupuncture Institute</td>
<td>27</td>
</tr>
<tr>
<td>Admissions (6th floor)</td>
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<tr>
<td>Alumni</td>
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<tr>
<td>Art Gallery</td>
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<td>Athletic Office</td>
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<tr>
<td>Bookstore (Basement)</td>
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<tr>
<td>Bursar (Ground floor)</td>
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<tr>
<td>Career Services (6th floor)</td>
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<tr>
<td>Cafeteria (Basement)</td>
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<tr>
<td>Catholic Services</td>
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<tr>
<td>Counseling Services</td>
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<tr>
<td>Dining</td>
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<td>Dental Health Clinic</td>
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<tr>
<td>University Relations</td>
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<tr>
<td>Financial Aid (Ground floor)</td>
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<tr>
<td>Fones School of Dental Hygiene</td>
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<tr>
<td>International Student Affairs (Ground floor)</td>
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<tr>
<td>Information</td>
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<td>Interfaith Services</td>
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<td>Handicapped Services</td>
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<td>Health Services</td>
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<td>Nutrition Institute</td>
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<td>Personnel (7th floor)</td>
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<td>Public Relations</td>
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<tr>
<td>Security</td>
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<tr>
<td>Soccer Field</td>
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<td>Student Services &amp; Activities</td>
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<td>Theater (Mertens)</td>
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**University Administration**

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<td>President's Office</td>
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<tr>
<td>Academic Affairs</td>
<td>19</td>
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<tr>
<td>Alumni/University Relations</td>
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</tr>
<tr>
<td>Business &amp; Finance (7th floor)</td>
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<tr>
<td>Student Services</td>
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**Deans and Directors**

<table>
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<tbody>
<tr>
<td>Arts and Sciences</td>
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<tr>
<td>Acupuncture Institute</td>
<td>28</td>
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<tr>
<td>Ernest C. Trefz School of Business</td>
<td>3</td>
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<tr>
<td>Shintaro Akatsu School of Design</td>
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<tr>
<td>Chiropractic</td>
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<tr>
<td>Education/Human Resources</td>
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<td>Fones School of Dental Hygiene</td>
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<td>General Studies</td>
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<td>Naturopathic Medicine</td>
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<td>Physician Assistant Institute</td>
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<td>Public and International Affairs</td>
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</table>

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**Parking**

Parking facilities are available at no charge to UB students and community.

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**Campus Map**

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