About UB

The University of Bridgeport is an international, doctoral-intensive, comprehensive university, offering award-winning academic programs in a variety of innovative undergraduate and graduate degree programs. Our 50-acre, seaside campus overlooks Long Island Sound on Connecticut’s corporate Gold Coast, and is within easy driving distance of New York City and Boston.

Our student-faculty ratio is 15:1, and our full- and part-time faculty members include Fulbright Scholars, National Science Foundation Fellows, Ford Fellows, National Endowment for the Humanities Fellows, American Council for Learned Societies Scholars and Phi Beta Kappa Scholars. Some 32 percent of our students are members of minorities and students from more than 80 countries live and learn within our community.

Computer Sciences

The increasing use of the computer and technology in today’s world offers expanding opportunities in the field of computer science. 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 an effect on computing education, affecting both content and pedagogy.

Program Overview

A Bachelor of Science degree in Computer Science allows students to develop the understanding and skills needed for a career in the field. Computer science core courses provide basic coverage of algorithms, data structures, software design, and 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.

To prepare students for the competitive marketplace, our degree program focuses on computer organization and architecture, concepts of programming languages, algorithms, data structures, and software design. It includes problem analysis, theoretical foundations, and solution design. Students will study a variety of programming languages and systems, become proficient in more than one higher-level language, develop project management and formal reasoning skills.

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. For example, a student can choose a software oriented program including areas such as artificial intelligence, knowledge based systems, and software design. Or, a student can choose a hardware oriented program including areas such as integrated circuit design, robotics, and networking.
Program of Study

The Computer Science program requires 99 semester credit hours including 69 credit hours in the program core and 30 credit hours in mathematics. An additional 31 credit hours will be accumulated through general education requirements. Students are required to complete 130 credit hours to graduate with a degree in Computer Science.

Program Core Courses for Computer Science

- CS 101/101a Introduction to Computing I
- CS 102/102a Introduction to Computing II
- CS 201 Advanced Data & File Structures
- CS 203 2nd Programming Language
- CS 227 Discrete Structures
- CpE 210 Digital Systems Design I
- CpE 286 Microprocessor System Design
- CS 300 Economics & Management of Computing Projects
- CS 301 Programming Languages
- CS 329 Fundamentals of Algorithms
- CS 311 Computer Architecture
- CS 449 Senior Design Project
- CS 450 Database Design
- CpE 408 Operating Systems
- CpE 471 Data and Computer Engineering
- CS 489 Software Engineering

Mathematics Courses

(23 credit hours out of 30 required)

- Math 110/112 Calculus I & II
- Math 215 Calculus III
- Math 323 Probability & Statistics