

Courses

1. Computation, Intelligence, and Robotics

Number	Title
CS 504	Artificial Intelligence
CS 505	Introduction to Expert System Design
CS 509	Automata theory
CS 520	Theory of Computation
CS 570	Advanced Robotics
CS 580	Introduction to Neural Networks
CS 584	Machine Perception
CS 604	Advanced Artificial Intelligence
CS 605	Advanced Expert System Design
CpE 460	Introduction to Robotics
CpE 585	Computer Vision
CpE 588	Interactive Computer Graphics
EE 545	Advanced Control Theory
EE 580	Information Theory and Coding
CSE 521	Evolutionary Computation
CSE 522	Fuzzy Systems

2. Languages and Systems

Number	Title
CS 400	Object Oriented Programming in C++
CS 410	Java Programming
CS 411	Advanced Object Oriented Programming with JAVA
CS 435	Unix System Programming
XS 436	Advanced C & Unix Programming
CS 440	Windows Programming
CS 445	Advanced Windows Programming
CS 450	Database Design
CS 502	Analysis of Algorithms
CS 503	Operating Systems
CS 545	Component Based Software Design
CS 551	Advanced Databases
CS 555	Web-Based Application Development
CpE 489	Software Engineering
CpE 560	Performance Analysis and Evaluation
CSE 531	Distributed Operating Systems

3. Parallel Processing and Networks

Number	Title
CS 590	Parallel and Distributed Processing
CpE 471	Data and Computer Communication
CpE 472	Computer Networks
CpE 473	Local Area Networks
CpE 481	Mobile Communications
EE 415	Fiber Optics
CpE 561	Network Security
EE 415	Fiber Optics
EE 437	Microwaves
EE 455	Microwave Lab
CSE 551	High Speed Networks

4. Computer Architecture and VLSI

Number	Title
CpE 410	Introduction to Computer Architecture
CpE 447	Logic Synthesis Using FPGAs
CpE 448	Introduction to VLSI Design
CpE 540	Image Processing
CpE 550	Advanced VLSI Design
CpE 596	Digital Signal Processing Laboratory
EE 443	Applied Digital Signal Processing
EE 482	Analog and Digital Electronics
EE 582	Advanced Topics in Electronics
CSE 570	Foundations of Formal Hardware Verification
CSE 561	Design of Arithmetic Units

5. Information Technology Globalization Track

This track emphasizes the study of contemporary issues in the fields of global technology ventures, economics and management of the 21st century global engineering and computing enterprise, global/societal and economical impact of emerging technologies, managing the global research enterprise in the 21st century, global intellectual property management and IP implications on technology and computing advances and case studies in technology management across national borders.

In this track the students have to choose two courses out of the offered courses

6. Other Courses

This subsection mentions a number of additional courses that do not belong to any of the previous areas of specialization.

CSE 690	Independent Study
CSE 692	Special Topics in Computer Science
CSE 693	Special Topics in Computer Engineering
CSE 694	Written Comprehensive Examinations
CSE 698	Teaching requirement
CSE 699	Seminar (Oral Exam)
CSE 710	<i>Ph.D.</i> dissertation

Independent Study is a course that can be 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.

Special Topics courses in Computer Science & Engineering are offered to allow special topics courses in the general area of computer science and engineering that do not fit into any of the four areas of specialization.

Seminar is a zero credit course. Usually this involves attending the regular departmental seminars and presenting one's work in one of the seminars.