



COURSE PRE-REQUISITES: COMPUTER SCIENCE

Course	Course Num	Pre-requisite
Advanced Database Systems	CS424	Database Management
Algorithm Design and Analysis	CS456	C or better in Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Discrete Structures & Theory, C or better in Data Structures
Applied Cryptography and Computer Systems Security	CS455	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Discrete Structures and Theory
Applied Project (CS)	CS410	8 Computer Science Credits , C or better in Data Structures (Computer Science majors only)
Artificial Intelligence	CS454	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Discrete Structures and Theory
Computer Graphics	CS452	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Computer Organization, and EITHER Programming 3 / Intermediate Computer Programming OR Data Structures
Computer Organization and Architecture	CS331	Programming 2 / Programming for Computer Science or Computer Programming for Engineering. Completion or concurrent enrollment in Discrete Structures and Theory
Computer Programming for Engineering	CS112	None
Concepts of Programming Languages	CS413	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, EITHER Data Structures and Algorithms, Discrete Structures and Theory
Database Management	CS323	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, EITHER Discrete Structures and Theory OR Data Structures and Algorithms
Data Mining		Database Management, Statistics or Statistics for Engineering & Economics

Data Structures and Algorithms	CS222	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Concurrent enrolment in Discrete Structures and Theory recommended but not required
Discrete Structures and Theory	CS221	Pre-Calculus 2 or Calculus 1, Introduction to Computing & Programming or Programming 2 / Programming for Computer Science or Computer Programming for Engineering
E-Commerce	CS442	Web Technologies, Database Management
Human Computer Interaction	CS314	Programming 1 / Introduction to Computing & Programming or Programming 2 / Programming for Computer Science or Computer Programming for Engineering
Machine Learning		Programming 2 / Programming for Computer Science or Computer Programming for Engineering, EITHER Statistics and Quantitative Methods OR Statistics for Engineering & Economics
Mobile Web Programming	CS443	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, and Web Technologies
Networks and Distributed Computing	CS432	Programming 2 / Programming for Computer Science or Computer Programming for Engineering
Operating Systems and Systems Administration	CS433	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, EITHER Discrete Structures and Theory OR Data Structures and Algorithms
Operating Systems	CS435	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, EITHER Discrete Structures and Theory OR Data Structures and Algorithms
Systems Administration Laboratory	IS332	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Prior or Concurrent enrolment in IT Infrastructure recommended
Programming 1 / Introduction to Computing & Programming	CS111	None
Programming 2 / Programming for Computer Science	CS212	Programming 1 / Introduction to Computing & Programming, or Pre-Calculus 1 or Calculus 1
Programming 3 / Intermediate Computer Programming	CS313	Programming 2 / Programming for Computer Science or Computer Programming for Engineering
Robotics	CS453	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Pre-Calculus 1 or Calculus 1
Software Engineering	CS415	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, EITHER Web Technologies OR Database Management

Thesis	CS400	
Thesis 1 (CS)	CS400_A	8 Computer Science Credits , at least a C in Data Structures
Thesis 2 (CS)	CS400_B	Thesis 1 (CS)
VLSI - Embedded Systems	CS451	Computer Organization and Architecture
Web Technologies	CS341	Programming 2 / Programming for Computer Science or Computer Programming for Engineering, Completion or concurrent enrollment in Database Management