

This certificate targets students who are working on or possess an undergraduate degree in a technical (science or engineering) field but lack a formal credential in the computer science field. The certificate also targets students who have shown an aptitude for graduate study but do not have the academic prerequisites required for admittance into a graduate MS computer science program.

Admissions Requirements

Students must have two semesters of calculus (equivalent to MATH 113 and MATH 114), two semesters of programming experience (equivalent to CS 112 and CS 211), and either a bachelor's degree with at least a 3.00 GPA or current enrollment in an undergraduate major.

Certificate Requirements

Basic Computer Science:

- CS 262 - Introduction to Low-Level Programming
- CS 310 - Data Structures
- CS 330 - Formal Methods and Models
- CS 367 - Computer Systems and Programming
- CS 471 - Operating Systems
- CS 483 - Analysis of Algorithms

Math:

- MATH 125 - Discrete Mathematics I

Completion of

- two of the following:
 - CS 321 – Software Engineering or CS 351 – Visual Computing
 - CS 425 – Game Programming I
 - CS 440 – Language Processors and Programming Environments
 - CS 450 – Database Concepts
 - CS 451 – Computer Graphics
 - CS 452 – Virtual Reality
 - CS 455 – Computer Communications and Networking
 - CS 463 – Comparative Programming Languages
 - CS 465 – Computer Systems Architecture
 - CS 468 – Secure Programming and Systems
 - CS 475 – Concurrent and Distributed Systems
 - CS 477 – Mobile Application Development
 - CS 478 – Natural Language Processing
 - CS 480 – Introduction to Artificial Intelligence
 - CS 482 – Computer Vision
 - CS 484 – Data Mining
 - CS 485 – Autonomous Robotics
 - CS 487 – Introduction to Cryptography
 - CS 499 – Special Topics (3cr max)

We invite requests for additional information. Please contact:

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