

## COMPUTER SCIENCE UNDERGRADUATE CERTIFICATE

2011 – 2012

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 programming experience at the level of CS 112 and CS 211, and either a BS in a technical field with a 3.00 GPA or higher, or current enrollment in a technical undergraduate minor.

### Certificate Requirements

#### *Basic Computer Science<sup>1</sup>:*

- \* CS 310 - Data Structures
- \* CS 330 - Formal Methods and Models
- \* CS 367 - Computer Systems and Programming
- \* CS 465 - Computer Systems Architecture
- \* ECE 301 - Digital Electronics

#### *Math:*

- \* MATH 125 - Discrete Mathematics I
- \* MATH 213 - Analytic Geometry and Calculus III

#### *Completion of*

- \* CS 483 - Analysis of Algorithms
  - and two of the following:
    - CS 321 - Software Requirements and Design Modeling
    - CS 440 - Language Processors and Programming Environments
    - CS 450 - Database Concepts
    - CS 451 - Computer Graphics
    - CS 455 - Computer Communications and Networking
    - CS 468 - Secure Programming and Systems
    - CS 471 - Operating Systems
    - CS 480 - Introduction to Artificial Intelligence
    - CS 484 - Data Mining

*or:*

- \* CS 583 - Analysis of Algorithms
  - and two of the following:
    - CS 540 - Language Processors
    - CS 571 - Operating Systems
    - CS 580 - Introduction to Artificial Intelligence

<sup>1</sup>*Students also need CS 262 – Intro to Low-level Programming*

### **We invite requests for additional information. Please contact:**

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