The Master’s Degree in Computer Science is intended to prepare individuals with a strong mathematical, scientific, or technical background for entry into the computer science field at an advanced level and for further study leading to a doctorate.

Program Overview

The Master's Degree in Computer Science is a course of study intended to prepare individuals whose undergraduate background is in computer science for advanced professional work in the field and for further study leading to the doctorate.

Emphasis is placed on current state-of-the-art applications including parallel computing, image processing, VLSI design, sensing, robotics, mobile computing, automation and the like. Customized study plans allow students in the Computer Science M.S. degree while pursuing either the Ph.D. degree in Computer Science and Engineering or the Ed.D. degree in Education.
**Program of Study**

A total of 33 semester hours is required and the core curriculum consists of 15 credits. The remaining 18 Credits are elective courses and may be chosen from the list of Computer Science concentration areas or chosen in consultation with the graduate advisor. Students may do an independent project or thesis as part of the 18 credits of electives. Students not selecting this option must take a comprehensive examination.

Accredited by the New England Association of Schools & Colleges (NEASC), UB Online has been offering courses online since 1997.

**Dual Degrees**

The department offers the opportunity to acquire dual graduate degrees along with the M.S. degree in Computer Engineering. Candidates for these dual Masters Degree programs are typically required to complete a total of 48-52 credit hours to satisfy the requirements of two master's degrees. This implies 15-19 credit hours in addition to the 33 hours required for the M.S. degree in Computer Engineering.

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**Program Core Courses**

- CS 450 Data Base Design
- CS 400 Object Oriented Programming Using C++
- CpE 471 Data and Computer Communication
- CS 502 Analyses of Algorithms
- CS 503 Operating Systems

**Concentration Areas**

- Advanced Applications and Systems Programming
- Bio-Medical Engineering
- CAD/CAM
- Computer and Information Security
- Computer Communications and Networking
- E-Commerce
- Microelectronics and Computer Architecture
- Modern Data Base Systems
- Network Security
- Robotics and Automation
- Signal and Image Processing
- Software Engineering
- Very Large Scale Integration (VLSI)
- Wireless and Mobile Communications