**COMPUTER SCIENCE AMP**

All students must meet the Requirements for the Accelerated Master’s Degree Programs (http://catalogue.uvm.edu/graduate/degreerequirements/requirementsforacceleratedmastersdegreeprograms/)

**OVERVIEW**

The Accelerated Master’s Entry Program (AMP) in computer science allows students with strong ability and motivation to complete a bachelor’s degree at UVM and a master’s degree at UVM in computer science within 5 years.

**SPECIFIC REQUIREMENTS**

Requirements for Admission to Graduate Studies for the Degree of Master of Science for Accelerated Master’s Students

Students enrolled in any undergraduate bachelor’s degree program at UVM are eligible to apply for the computer science AMP. Following formal admission by the Graduate College to the Accelerated Master’s Program, students may count up to 6 graduate level course work credits toward both the bachelor’s and master’s degrees. Another 3 graduate credits can be counted towards the master’s degree while an undergraduate but cannot count towards the bachelor’s degree.

Although the bachelor’s degree need not be in computer science, applicants must have at least a 3.2 GPA and demonstrate that they have taken the following prerequisite courses, or have equivalent knowledge:

- 2 courses that treat systematic program development in a high-level language, for example:
  - CS 021 QR: Computer Programming I 3
  - CS 110 QR: Intermediate Programming 4

- 1 course in computer system organization, for example:
  - CS 121 QR: Computer Organization 3

- 1 course in data structures, for example:
  - CS 124 QR: Data Struc & Algorithms 3

- 1 course in computability and complexity, for example:
  - CS 125 QR: Computability & Complexity 3

- 2 courses in differential and integral calculus, for example:
  - MATH 021 QR: Calculus I 4
  - MATH 022 QR: Calculus II 4

- 1 course in linear algebra:
  - MATH 122 QR: Applied Linear Algebra 3

Coursework in probability and statistics, for example:

- STAT 143 QR: Statistics for Engineering 3
- STAT 151 QR: Applied Probability 3

Undergraduates interested in the AMP should discuss this option with the College of Engineering & Mathematical Sciences Graduate Coordinator prior to any semester in which they wish to take courses that will apply to the master’s degree.

There is no GRE requirement for AMP students.

**Minimum Degree Requirements**

<table>
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<tr>
<th>Option A (Thesis)</th>
<th>30 credits, including a minimum of 21 credits of approved course work, and a minimum of 6 credits of thesis research (CS 391)</th>
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<tr>
<td>Option B (Project)</td>
<td>30 credits, including a minimum of 24 credits of approved course work, and a minimum of 3 credits of project research (CS 392)</td>
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<tr>
<td>Option C (Non-Thesis)</td>
<td>30 credits of approved course work</td>
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**All Options**

Students in all options must take, or have completed the equivalent of, CS 224 Algorithm Design & Analysis (students who took CS 224 at UVM for undergraduate credit with a grade of B+ or higher may substitute this core course with an appropriate alternative course) and 3 other core Computer Science Courses, to be determined in consultation with and approval of the student’s graduate advisor and the CS graduate coordinator, depending on a student’s background and interests.

Pass comprehensive exams covering material from the 4 approved core courses.

Fulfill the credit requirement with approved graduate-level course work in computer science or related areas. (Only courses with grades of B- or above are counted towards course work requirements and students with 2 grades below B are eligible for dismissal.)

**Comprehensive Examination**

Receiving a grade of A- or better in all courses constitutes successfully completing the comprehensive examination in that area.

Students who receive a grade of B+ or lower in any of their courses, or students who took CS 224 at UVM (whether for undergraduate or graduate credit) and received a grade of B+ or lower, must pass an oral comprehensive exam in that area. In this event, the Graduate Coordinator will form an exam committee for the oral exam(s). Each student who needs to take 1 or more comprehensive oral exam(s) should arrange a single date for all required oral exam(s) with the examiner(s) and then inform the Graduate Coordinator of the exam date. It is strongly recommended that the examination is completed.
during the academic year, unless all examiners voluntarily agree to give the exam on a date during the break.

Requirements for Advancement to Candidacy for the Degree of Master of Science
Passing of the comprehensive exam.