COMPUTER SCIENCE MAJOR
(B.A.) MANCHESTER

Description

The computer science program combines a solid foundation in computing necessary to succeed in today's start-up and high-tech environments. The program is designed in response to market demand for students proficient in computer science.

Students in the computer science program gain real-world experience through extensive project work and opportunities to interact with industry experts through internships and sponsored research.

Career prospects for students with an undergraduate computer science degree are varied, and may include such areas as applications developer, computer and information research scientist, data security specialist, database administrator, database developer, multimedia developer, network architect, product development manager, quality assurance analyst, software systems developer, user experience designer, or web developer.

Program Educational Objectives

Within five years of graduation, a CS student should be able to:

- Demonstrate mastery of the core areas of computer science
- Invent, develop, manage, and evaluate computing systems and services
- Exercise professional responsibility and have appreciation of the social, legal, ethical, and cultural issues inherent in the computing field.

Student Outcomes

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Requirements

Students majoring in computer science must complete 128 credits to graduate, satisfy the University's Discovery Program, and complete 69 credits in the major with a minimum of C- in each course. Students must maintain an overall cumulative GPA of 2.0 or better.

Transfer students who elect to major in computer science must earn 73 approved credits for completion of the their major, of which at least 24 credits must be completed at UNH Manchester.

PROGRAM REQUIREMENTS

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<tr>
<th>Code</th>
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<tr>
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<td>COMP 570</td>
<td>Statistics in Computing and Engineering</td>
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<td>PHYS 407</td>
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Computing Core

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<tr>
<td>COMP 424</td>
<td>Applied Computing 1: Foundations of Programming</td>
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<td>COMP 430</td>
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<td>Machine and Network Architecture</td>
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Project and Professional Practice

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<tr>
<td>UMST 582</td>
<td>Internship and Career Planning Seminar</td>
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Computing Topics

Select two from the following:

- COMP 705 | Full Stack Development                     |         |
- COMP 715 | Information Security                        |         |
- COMP 720 | Database Systems and Technologies           |         |
- COMP 725 | Programming Languages                       |         |
- COMP 740 | Machine Learning Applications and Tools     |         |

Total Credits: 69

1. The program requires four mathematics courses and one physics course.
2. The program prepares students for the workforce and further education in a holistic way by emphasizing communication, collaboration, team work, initiative, appreciation for diversity, and self-direction and responsibility.
3. Advisor permission required.

For additional information about the computer science program, contact Michael Jonas at Michael.Jonas@unh.edu (michael.jonas@unh.edu) or contact the UNH Manchester Office of Admissions, (603) 641-4150; unhm.admissions@unh.edu.

Degree Plan

Sample Course Sequence

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