Undergraduate

The courses in the Computer Science Department are designed to teach the foundations of computing rather than a particular technology, so that the student is prepared to adapt to changing technology. Students are exposed to various programming languages and computing systems.

The job market in computer science is strong. A student completing a bachelor’s degree with a strong academic record can expect job offers as a systems programmer or analyst, applications programmer, systems support staff member, technical staff member, or similar position. The undergraduate curriculum has also been designed to prepare students for graduate studies (master’s and doctoral degrees) in computer science. Qualified students who have an interest in research will have opportunities to participate in projects with department faculty during undergraduate or graduate studies.

Graduate

Jing Deng, Director of Graduate Study

About

The Master of Science is designed to build computer science depth and research competence, to prepare students for advanced careers in computing fields. Students completing the M.S. degree are also well-prepared for doctoral study in computer science.

MS students may pursue an optional concentration in Data Science and Big Data, which provides students key knowledge of appropriate theories, algorithms, and technologies, towards development of analytical systems/models for disparate, complex, and small/large scale datasets. Students completing this concentration will have demonstrated skills necessary to tackle a wide variety of data-focused scientific, social, and environmental challenges.

Mission Statement

The Department of Computer Science supports the university mission of being a student-centered research university by fostering discovery and intellectual growth through the traditional activities of education, research, and service, with stated missions in each of these areas.

• Education Mission: To provide excellence in teaching and education, providing rigorous undergraduate and graduate programs that produce graduates who have the theoretical foundation and technical skills to become productive professionals and/or to contribute to research in computer science, and supporting general liberal education through courses for non-majors that promote critical thinking and skills for life in a technical and information-based society.

• Research Mission: To contribute to the creation and dissemination of ideas through research and scholarly activities, such as publication of original research, presentations at scholarly meetings, and participation in externally funded research projects, in the context of a program which values the academic freedom of faculty to set their own research directions in basic or applied research.

• Service Mission: To support the university and computer science profession through participation in activities, committees, and policy making.

Professor
Jing Deng
Fereidoon Sadri
Shanmugathasan Suthaharan
Stephen R Tate

Visiting Professor
Sami Khuri

Associate Professor
Lixin Fu
Nancy L Green

Assistant Professor
Minjeong Kim
Regis Kopper
Prashanti Manda
Somya Darsan Mohanty

Senior Lecturer
Mark V Armstrong

Lecturer
Chandana Ariyawansa
Spencer Jaehoon Lee

Graduate-level faculty

• Computer Science, B.S. (https://catalog.uncg.edu/arts-sciences/computer-science/computer-science-bs)

• Computer Science Undergraduate Minor (https://catalog.uncg.edu/arts-sciences/computer-science/computer-science-minor)

• Computer Science, M.S. (https://catalog.uncg.edu/arts-sciences/computer-science/computer-science-ms)

Computer Science Disciplinary Honors Requirements

• A minimum of 12 credit hours as defined below.

• A grade of B or higher in all course work used to satisfy the Honors requirements in Computer Science and at least a 3.30 overall GPA at graduation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CSC 493</td>
<td>Honors Work in Computer Science</td>
<td>6</td>
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<tr>
<td>HSS 490</td>
<td>Senior Honors Project</td>
<td>**</td>
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<tr>
<td>Select 6 credits from the following:</td>
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<tr>
<td>CSC 415</td>
<td>Computer Graphics</td>
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<tr>
<td>CSC 416</td>
<td>Digital Image Processing</td>
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</tr>
<tr>
<td>CSC 425</td>
<td>Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>CSC 427</td>
<td>Numerical Analysis and Computing</td>
<td></td>
</tr>
<tr>
<td>CSC 429</td>
<td>Artificial Intelligence</td>
<td></td>
</tr>
<tr>
<td>CSC 439</td>
<td>Introduction to Compiler Design</td>
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<tr>
<td>Course Code</td>
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<td>CSC 442</td>
<td>Human-Computer Interface Development</td>
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<tr>
<td>CSC 454</td>
<td>Algorithm Analysis and Design</td>
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<tr>
<td>CSC 461</td>
<td>Principles of Computer Architecture</td>
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<tr>
<td>CSC 471</td>
<td>Principles of Database Systems</td>
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<tr>
<td>CSC 477</td>
<td>Principles of Computer Networks</td>
<td></td>
</tr>
<tr>
<td>CSC 478</td>
<td>Principles of Wireless Networks</td>
<td></td>
</tr>
</tbody>
</table>

* Taken first in the sequence.
** Taken second in the sequence.

**Recognition**

Receive a Certificate of Disciplinary Honors in Computer Science; have that accomplishment, along with the title of the Senior Honors Project, noted on the official transcript; and be recognized at a banquet held at the end of the spring semester.

**Honors Advisor**

Contact Mark Armstrong at mvarmstr@uncg.edu for further information and guidance about Honors in Computer Science. To apply: [http://honorscollege.uncg.edu/forms/disc-application.pdf](http://honorscollege.uncg.edu/forms/disc-application.pdf)