Computer Science (MS)

Master of Science Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Courses</strong></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a minimum of one course per category under &quot;Core Courses&quot; listed below</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td>7</td>
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</tr>
<tr>
<td>CSC 600</td>
<td>Computer Science Graduate Orientation</td>
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<td></td>
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<tr>
<td>CSC 695</td>
<td>Master's Thesis Research</td>
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<tr>
<td></td>
<td><strong>Elective Courses</strong></td>
<td>9</td>
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<tr>
<td>CSC 500</td>
<td>or 700-level courses</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Minor Courses, CSC Graduate Electives or Restricted Electives</strong></td>
<td>9</td>
<td></td>
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<tr>
<td></td>
<td>&quot;Minor Courses, CSC Graduate Electives or Restricted Electives&quot; will be approved in conjunction with the academic committee</td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>31</td>
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</tr>
</tbody>
</table>

**Core Courses**

- Select minimum of two courses, one from each category

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Theory Category</strong></td>
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<tr>
<td></td>
<td><strong>CSC 503</strong> Computation Applied Logic</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>CSC 505</strong> Design and Analysis Of Algorithms</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CSC 512</strong> Compiler Construction</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CSC 514</strong> Foundations of Cryptography</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CSC 565</strong> Graph Theory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CSC 579</strong> Introduction to Computer Performance Modeling</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CSC 580</strong> Numerical Analysis I</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Systems Category</strong></td>
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<tr>
<td></td>
<td><strong>CSC 501</strong> Operating Systems Principles</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>CSC 506</strong> Architecture Of Parallel Computers</td>
<td>3</td>
<td></td>
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</table>

**Accelerated Bachelor's/Master's Degree Requirements**

The Accelerated Bachelor's/Master's (ABM) degree program allows exceptional undergraduate students at NC State an opportunity to complete the requirements for both the Bachelor's and Master's degrees at an accelerated pace. These undergraduate students may double count up to 12 credits and obtain a non-thesis Master's degree in the same field within 12 months of completing the Bachelor's degree, or obtain a thesis-based Master's degree in the same field within 18 months of completing the Bachelor's degree.

This degree program also provides an opportunity for the Directors of Graduate Programs (DGPs) at NC State to recruit rising juniors in their major to their graduate programs. However, permission to pursue an ABM degree program does not guarantee admission to the Graduate School. Admission is contingent on meeting eligibility requirements at the time of entering the graduate program.

**Faculty**

**Department Head**
Gregory E. Rothermel, Professor

**Distinguished University Research Professor**
Donald L. Bitzer

**Distinguished Professors**
Tiffany M. Barnes

Miaden A. Vouk, Vice Chancellor for Research Development
Laurie A. Williams, Co-Director - NCSU Science of Security Lablet
Distinguished University Professor
James C. Lester II, Director of the Center for Educational Informatics
Michael A. Rappa, Director, Institute for Advanced Analytics

Alumni Distinguished Graduate Professor
Georgios N. Rouskas, Director of Graduate Programs
Munindar P. Singh, Co-Director - NCSU Science of Security Lablet

Full Professor
Min Chi
Rada Y. Chirkova
Huaiyu Dai
Rudra Dutta, Associate Department Head
William H. Enck, Director of Wolfpack Security & Privacy Research (WSPR) Laboratory
Edward F. Gehringer
Xiaohui (Helen) Gu
Christopher G. Healey, Goodnight Distinguished Professor Analytics, Institute for Advanced Analytics
Steffen Heber
Timothy J. Menzies
R. Frank Mueller
Xipeng Shen
Matthias F. M. Stallmann
R. Raju Vatsavai

Associate Professors
Wesley K. G. Assunção
Marcelo d’Amorim
Zhishan Guo
Khaled Harfoush
Arnav H. Jhala
Alexandros Kapravelos
Sandeep K. Kuttal
Xu Liu
Collin F. Lynch

Assistant Professors
Samira Mirbagher Ajorpaz
Veronica M. Cateté
Anupam Das
Shiyan Jiang
Jung -Eun Kim
Chin Ho Lee
Jiajia Li
Jianqing Liu
Xiaorui Liu
Yuchen Liu
John-Paul Ore
Thomason W. Price
Dongkuan (DK) Xu
Dominik Wermke
Bowen Xu
Chenhan Xu
Man Ki Yoon
Ruozhou Yu

Teaching Professor
Sarah S. Heckman, Director of Undergraduate Programs
Teaching Associate Professors
Kimberly J. Titus
Tzvetelina (Lina) Battestilli
Jamie A Jennings
Jason T. King
Chandrika Satyavolu
Jessica Y. Schmidt
David B. Sturgill

Teaching Assistant Professors
Suzanne M. Balik
Abida Haque
Caio Batista de Melo
Alexander Card
Ignacio X. Dominguez
Adam Gaweda
Shuyin Jiao
Sterling M. McLeod

Lecturers
B. Jasmine Adams, Director of Undergraduate Advising
Margaret Heil, Director of Senior Design Center
ToniAnn Marini, Assistant Director of Undergraduate Advising

Research Professor
Franc Brglez

Assistant Research Professor
Bita Akram

Emeritus Faculty
Dennis R. Bahler
Wu-show Chou
Jon Doyle
Edward W. Davis, Jr.
Robert J. Fornaro
Thomas L. Honeycutt
David F. McAllister
Harry Perros
Douglas S. Reeves
Woodrow Robbins
Carla D. Savage
William J. Stewart
Alan L. Tharp
David J. Thuente

Adjunct Faculty
Ram Chllarege
Aldo Dagnino
Steven Hunter
Chris Martens
Wookhee Min
Peng Ning
Christopher Pamin
Injong Rhee
Robert St. Amant
Xiaogang (Cliff) Wang
Tao Xie

Director
Leslie Rand-Pickett, Graduate Career Services