## Computer Science (MS)

### Master of Science Degree Requirements

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

### Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select minimum of two courses, one from each category</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Theory Category</strong></td>
<td></td>
</tr>
<tr>
<td>CSC 503</td>
<td>Computational Applied Logic</td>
<td>3</td>
</tr>
<tr>
<td>CSC 505</td>
<td>Design and Analysis Of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSC 512</td>
<td>Compiler Construction</td>
<td>3</td>
</tr>
<tr>
<td>CSC 514</td>
<td>Foundations of Cryptography</td>
<td>3</td>
</tr>
<tr>
<td>CSC 565</td>
<td>Graph Theory</td>
<td>3</td>
</tr>
<tr>
<td>CSC 579</td>
<td>Introduction to Computer Performance Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CSC 580</td>
<td>Numerical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Systems Category</strong></td>
<td></td>
</tr>
<tr>
<td>CSC 501</td>
<td>Operating Systems Principles</td>
<td>3</td>
</tr>
<tr>
<td>CSC 506</td>
<td>Architecture Of Parallel Computers</td>
<td>3</td>
</tr>
<tr>
<td>CSC 510</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSC 520</td>
<td>Artificial Intelligence I</td>
<td>3</td>
</tr>
<tr>
<td>or CSC 720</td>
<td>Artificial Intelligence II</td>
<td>3</td>
</tr>
<tr>
<td>CSC 540</td>
<td>Database Management concepts and Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSC 561</td>
<td>Principles of Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CSC 570</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>or CSC 573</td>
<td>Internet Protocols</td>
<td>3</td>
</tr>
<tr>
<td>CSC 574</td>
<td>Computer and Network Security</td>
<td>3</td>
</tr>
</tbody>
</table>

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

The Accelerated Bachelors/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.

### Faculty

#### Full Professors

- Tiffany M. Barnes
- Donald L. Bitzer
- Rada Yuryevna Chirkova
- Jon Doyle
- Rudra Dutta
- Edward F. Gehringer
- Xiaohui Gu
- Christopher Graham Healey
- James C. Lester II
- Timothy James Menzies
- Rainer Frank Mueller
- Harilaos George Perros
- Michael A. Rappa
- Douglas S. Reeves
- Gregg Evan Rothermel
- Georgios N. Rouskas
- Nagiza Faridovna Samatova
- Carla Diane Savage
- Xipeng Shen
- Munindar P. Singh
- Matthias F. M. Stallmann
- Mladen Alan Vouk
- Laurie A. Williams

### Associate Professors

- Dennis R. Bahler
- Min Chi
- William H. Enck
- Vincent W. Freeh
- Khaled Abdel Hamid Harfoush
Steffen Heber
Arnav Harish Jhala
Noboru Matsuda
K. Anyanwu Ogan
David L. Roberts
Donald R. Sheehy
Ranga Raju Vatsavai
Benjamin Allen Watson

Assistant Professors
Anupam Das
Guoliang Jin
Alexandros Kapravelos
Xu Liu
Collin Francis Lynch
Christopher Robin Martens
John-Paul William Ore
Christopher Joseph Parnin
Thomason William Price
Bradley Galloway Reaves
Alessandra Scafuro
Muhammad Shahzad
Kathryn Thomasset Stolee
Ruozhou Yu

Practice/Research/Teaching Professors
Bita Akram
Suzanne M. Balik
Tzvetelina Battestilli
Ignacio Xavier Dominguez
Patrick A. Dreher
Sarah Smith Heckman
Jamie Allison Jennings
Shuyin Jiao
Jason Tyler King
Jessica Young Schmidt

Emeritus Faculty
Wu-show Chou
Edward Willmore Davis Jr.
Robert Joseph Fornaro
Thomas Lynn Honeycutt
David Franklin McAllister
Woodrow Robbins
William James Stewart
Alan Lee Tharp
David J. Thuente