# Computer Science (MS)

## Master of Science Degree Requirements

### Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select a minimum of one course per category under &quot;Core Courses&quot; listed below</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 600</td>
<td>Computer Science Graduate Orientation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 695</td>
<td>Master's Thesis Research</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### Elective Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 500 or 700-level courses</td>
<td></td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

### Minor Courses, CSC Graduate Electives or Restricted Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;Minor Courses, CSC Graduate Electives or Restricted Electives&quot; will be approved in conjunction with the academic committee</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

### Total Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Hours</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

## Core Courses

### Theory Category

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 503</td>
<td>Computational Applied Logic</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 505</td>
<td>Design and Analysis Of Algorithms</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 512</td>
<td>Compiler Construction</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 514</td>
<td>Foundations of Cryptography</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 565</td>
<td>Graph Theory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 579</td>
<td>Introduction to Computer Performance Modeling</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 580</td>
<td>Numerical Analysis I</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### Systems Category

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 501</td>
<td>Operating Systems Principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC 506</td>
<td>Architecture Of Parallel Computers</td>
<td>3</td>
<td></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.

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

### 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  
Edgar Lobaton  
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  
Ignacio Xavier Dominguez  
Jason Tyler King  
Tzvetelina Battestilli  
Jamie Allison Jennings  
Jessica Young Schmidt  
Bita Akram  
Suzanne M. Balik  
Tzvetelina Battestilli  
Ignacio Xavier Dominguez  
Patrick A. Dreher  
Sarah Smith Heckman  
Jamie Allison Jennings  
Shuyin Jiao  
Shuyin Jiao  
Jason Tyler King  
Jessica Young Schmidt  
David Brian Sturgill  

Lecturer  
Ketchiozo Thierry Wandji  

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

Adjunct professors
Robert Loftin
Bradford Wayne Mott