# Computer Networking (MS)

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Courses</strong></td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Select at least three courses from &quot;Core Courses&quot; listed below</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory Courses</strong></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select at least one course from &quot;Theory Courses&quot; listed below</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td>4</td>
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</tr>
<tr>
<td>CSC 600</td>
<td>Computer Science Graduate Orientation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or ECE 600</td>
<td>ECE Graduate Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select at least one 700-level course</td>
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<tr>
<td><strong>Additional Courses</strong></td>
<td></td>
<td>15</td>
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<tr>
<td>&quot;Additional Courses&quot; are approved in conjunction with the academic committee</td>
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<tr>
<td><strong>Thesis Option Courses</strong></td>
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</tr>
<tr>
<td>CSC 630</td>
<td>Master's Independent Study (Non-Thesis Option)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or ECE 634</td>
<td>Individual Studies In Electrical Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 695</td>
<td>Master's Thesis Research (Thesis Option)</td>
<td>3</td>
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<tr>
<td>or ECE 695</td>
<td>Master's Thesis Research</td>
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</tr>
<tr>
<td>Total Hours</td>
<td>31</td>
<td></td>
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</tr>
</tbody>
</table>

### Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC/ECE 570</td>
<td>Computer Networks</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC/ECE 573</td>
<td>Internet Protocols</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC/ECE 574</td>
<td>Computer and Network Security</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC/ECE 575</td>
<td>Introduction to Wireless Networking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC/ECE 577</td>
<td>Switched Network Management</td>
<td>3</td>
<td></td>
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</tbody>
</table>

### Theory Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 505</td>
<td>Design and Analysis Of Algorithms</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/ECE 579</td>
<td>Introduction to Computer Performance Modeling</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC/ECE 776</td>
<td>Design and Performance Evaluation of Network Systems and Services</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECE 766</td>
<td>Signal Processing for Communications &amp; Networking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CSC/ECE 777</td>
<td>Telecommunications Network Design</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</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

#### Full Professors

- B. Jayant Baliga
- Mesut E. Baran
- Salah M. A. Bedair
- Subhashish Bhattacharya
- Alper Yusuf Bozkurt
- Gregory T. Byrd
- Rada Yuryevna Chirkova
- Mo-Yuen Chow
Huaiyu Dai
William Rhett Davis
Alexandra Duel-Hallen
Michael James Escuti
Do Young Eun
Brian Allan Floyd
Paul D. Franzon
John J. Grainger
Edward Grant
Robert Wendell Heath
Brian L. Hughes
Iqbal Husain
Ki Wook Kim
Frederick Anthony Kish Jr.
Robert Michael Kolbas
Hamid Krim
Ning Lu
Srdjan Miodrag Lukic
Leda Lunardi
Thomas Kenan Miller III
Veena Misra
Rainer Frank Mueller
John F. Muth
H. Troy Nagle Jr.
Arne Nilsson
Omer Oralkan
Mehmet Cevdet Ozturk
Harilaos George Perros
Douglas Stephen Reeves
Eric Rotenberg
Mihail Lorin Sichitiu
Daniel D. Stancil
Michael B. Steer
J K Townsend
James Tuck
Daryoosh Vashaee

John Victor Veliadis
Ioannis Viniotis
Wenyu Wang
Jonathan Wierer
Huiyang Zhou

### Associate Professors

Jacob James Adams
Dror Zeev Baron
Michela Becchi
Aranya Chakrabortty
Alexander G. Dean
Ismail Guvenc
Khaled Abdel Hamid Harfoush
Michael W. Kudenov
Edgar Lobaton
Zeljko Pantic
Nuria Gonzalez Prelcic
David Ricketts
Nitin Sharma
Cranos M. Williams
Chengying Xu

### Assistant Professors

Aydin Aysu
Amay Jairaj Bandonkar
Michael Daniele
Yaoyao Jia
Shih-Chun Lin
Spyridon Pavlidis
Bradley Galloway Reaves
Muhammad Shahzad
Wenyuan Tang
Chau-Wai Wong
Tianfu Wu
Practice/Research/Teaching Professors
Gregory Edward Bottomley
Laura J. Bottomley
James Paul Dieffenderfer
Robert Joseph Evans
Rachana Ashok Gupta
Douglas C. Hopkins
Steven Wade Hunter
Steven D. Jackson
Bongmook Lee
David Lee Lubkeman
Robert Dwight Oden Jr.
Hatice Orun Ozturk
Veety, Elena Nicolescu
Tania Milkova Paskova
Andrew J. Rindos III
Elena Nicolescu Veety
Leonard Wilson White
Donna G. Yu
Wensong Yu

Emeritus Faculty
Winser E. Alexander
George F. Bland
David H. Covington
Tildon H. Glisson Jr.
John R. Hauser
Michael A. Littlejohn
David Franklin McAllister
Carlton M. Osburn
Wilbur Carroll Peterson
Sarah Ann Rajala
Wesley E. Snyder