

Computer Networking (MS): Internship Concentration

Degree Requirements

This concentration will require an Internship of at least four months duration (maximum of seven months) and the student to take 3 credit hours of ECE 650 and obtain a Satisfactory grade. An internship of at least four calendar months duration would require that it span at least one semester and possibly part of summer. The credits for ECE 650 would be taken during the semester that includes the internship. The student would be considered as being enrolled full time during that semester.

A student would not enroll in this concentration in their first semester. They would switch to it in a later semester if they secure a suitable internship. Per normal CPT rules, International students studying on an F-1 visa would have to be present on a US campus for two full semesters (a full academic year), and present at NC State for one semester, before using CPT privileges to take an internship. If a student switches to this concentration but does not start the internship, they will switch back to the original plan.

This will be a concentration only for on-campus students. Students enrolled in our distance education – Engineering Online (EOL) - option will not be eligible.

| Code | Title | Hours | Counts towards |
|--|--|-----------|----------------|
| Core Courses | | 9 | |
| Select at least three courses from "Core Courses" listed below | | | |
| Theory Courses | | 3 | |
| Select at least one courses from "Theory Courses" listed below | | | |
| Required Courses | | 4 | |
| CSC 600 | Computer Science Graduate Orientation | | |
| or ECE 600 | ECE Graduate Orientation | | |
| Select at least one 700-level course | | | |
| Concentration Requirement | | 3 | |
| ECE 650 | Internship * | | |
| Additional Courses | | 12 | |
| "Additional Courses" are approved in conjunction with the academic committee | | | |
| Thesis Option Courses | | | |
| CSC 630 | Master's Independent Study (Non-Thesis Option) | | |
| or ECE 634 | Individual Studies In Electrical Engineering | | |

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|------------|--|
| CSC 695 | Master's Thesis Research (Thesis Option) |
| or ECE 695 | Master's Thesis Research |

Total Hours 31

* ECE 650 requires that a written report be submitted and accepted by an ECE faculty examiner as meeting the standards required by the course. The written report should cover both technical and non-technical aspects of what the student did and learned during the internship. The report should not disclose company proprietary information.

Core Courses

| Code | Title | Hours | Counts towards |
|--|-------------------------------------|-------|----------------|
| Select at least three courses from the following: | | | |
| CSC/ECE 570 | Computer Networks | 3 | |
| CSC/ECE 573 | Internet Protocols | 3 | |
| CSC/ECE 574 | Computer and Network Security | 3 | |
| CSC/ECE 575 | Introduction to Wireless Networking | 3 | |
| CSC/ECE 577 | Switched Network Management | 3 | |

Theory Courses

| Code | Title | Hours | Counts towards |
|--|---|-------|----------------|
| Select a minimum of one course below: | | | |
| CSC 505 | Design and Analysis Of Algorithms | 3 | |
| CSC 565 | Graph Theory | 3 | |
| CSC 579 | Introduction to Computer Performance Modeling | 3 | |
| or ECE 579 | Introduction to Computer Performance Modeling | | |
| CSC/ECE 776 | Design and Performance Evaluation of Network Systems and Services | 3 | |
| ECE 766 | Signal Processing for Communications & Networking | 3 | |
| CSC/ECE 777 | Telecommunications Network Design | 3 | |

Faculty

B. Jayant Baliga

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Salah M. A. Bedair

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Mo-Yuen Chow

Hantao Cui

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William Rhett Davis

Alexandra Duel-Hallen

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Brian Allan Floyd

Paul D. Franzon

John Gajda

Paschalis Gkoupidenis

John J. Grainger

Edward Grant

Zhishan Guo

Sevgi Gurbuz

Ali Gurbuz

Robert Wendell Heath

Fu-Chen Hsiao

Brian L Hughes

Iqbal Husain

Sabre Kais

Derek Kamper

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Frederick Anthony Kish Jr.

Robert Michael Kolbas

Hamid Krim

Yuan Liu

Frederick J. Livingston

Ning Lu

Srdjan Miodrag Lukic

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Thomas Kenan Miller III

Veena Misra

Rainer Frank Mueller

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Arne Nilsson

Omer Oralkan

Mehmet Cevdet Ozturk

Harilaos George Perros

Anderson Rodrigo de Queiroz

Douglas Stephen Reeves

James Lee Reynolds

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Ioannis Viniotis

Wenye Wang

Jonathan Wierer

Chenhan Xu

Man Ki Yoon

Huiyang Zhou

Jacob James Adams

Dror Zeev Baron

Michela Becchi

| | |
|-----------------------------|---------------------------|
| Aranya Chakraborty | Veety,Elena Nicolescu |
| Alexander G. Dean | Tania Milkova Paskova |
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| Khaled Abdel Hamid Harfoush | Leonard Wilson White |
| Michael W. Kudenov | Donna G. Yu |
| Edgar Lobaton | Wensong Yu |
| Zeljko Pantic | Winser E. Alexander |
| Nuria Gonzalez Prelcic | George F. Bland |
| David Ricketts | David H. Covington |
| Nitin Sharma | Tildon H. Glisson Jr. |
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| Chengying Xu | Michael A. Littlejohn |
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| Chau-Wai Wong | |
| Tianfu Wu | |
| Gregory Edward Bottomley | |
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| 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 | |