# 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 |  |
|--|---|-------|--|
| Core Courses   |   | 9     |  |
| Select at leas   | st three courses from "Core Courses" listed below |       |  |
| Theory Courses   |   |       |  |
| Select at least one courses from "Theory Courses" listed below               |   |       |  |
| Required Courses   |   |       |  |
| CSC 600  | Computer Science Graduate Orientation             |       |  |
| or ECE 60  | 00 ECE Graduate Orientation                       |       |  |
| Select at leas   | st one 700-level course                           |       |  |
| Concentration Requirement  |   |       |  |
| ECE 650  | Internship *                                      |       |  |
| Additional Courses   |   |       |  |
| "Additional Courses" are approved in conjunction with the academic committee |   |       |  |
| Thesis Option Courses  |   |       |  |
| CSC 630  | Master's Independent Study (Non-Thesis Option     | า)    |  |
| or ECE 63  | 34 Individual Studies In Electrical Engineering   |       |  |
| CSC 695  | Master's Thesis Research (Thesis Option)          |       |  |
| or ECE 69  | 95 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 |  |  |
|---|-------------------------------------|-------|--|--|
| 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 |
|-----------------|---|-------|
| Select a minimu | m of one course below:                            |       |
| CSC 505         | Design and Analysis Of Algorithms                 | 3     |
| CSC 565         | Graph Theory                                      | 3     |
| CSC 579         | Introduction to Computer Performance Modeling     | g 3   |
| or ECE 579      | Introduction to Computer Performance Modeling     | g     |
| ECE 766         | Signal Processing for Communications & Networking | 3     |
| CSC/ECE 777     | Routed Network Design                             | 3     |

## **Faculty**

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