

# COMPUTER SCIENCES FOR PROFESSIONALS, CAPSTONE CERTIFICATE

## REQUIREMENTS

### REQUIREMENTS GRADE REQUIREMENTS

- Must have a minimum GPA of 2.000
- Courses must have a grade of C or better to be accepted

### REQUIRED COURSES

Designed for the working professional, several courses are offered in the evening, off campus, each semester.

Students must complete **4** courses from the following list, for a total of **12** credits.

| Code                       | Title                                                  | Credits |
|----------------------------|--------------------------------------------------------|---------|
| COMP SCI/<br>E C E 354     | Machine Organization and Programming                   | 3       |
| COMP SCI 400               | Programming III                                        | 3       |
| COMP SCI 407               | Foundations of Mobile Systems and Applications         | 3       |
| COMP SCI/L I S 472         | Introduction to Web Development                        | 3       |
| COMP SCI/<br>E C E 506     | Software Engineering                                   | 3       |
| COMP SCI/E C E/<br>M E 532 | Matrix Methods in Machine Learning                     | 3       |
| COMP SCI 536               | Introduction to Programming Languages and Compilers    | 3       |
| COMP SCI 537               | Introduction to Operating Systems                      | 4       |
| COMP SCI 540               | Introduction to Artificial Intelligence                | 3       |
| COMP SCI 542               | Introduction to Software Security                      | 3       |
| COMP SCI/<br>E C E 552     | Introduction to Computer Architecture                  | 3       |
| COMP SCI 559               | Computer Graphics                                      | 3       |
| COMP SCI 564               | Database Management Systems: Design and Implementation | 4       |
| COMP SCI 570               | Introduction to Human-Computer Interaction             | 3       |
| COMP SCI 571               | Building User Interfaces                               | 3       |
| COMP SCI 577               | Introduction to Algorithms                             | 4       |
| COMP SCI 640               | Introduction to Computer Networks                      | 3       |
| COMP SCI 642               | Introduction to Information Security                   | 3       |

### MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.
- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned "in residence" (which includes on campus and distance-delivered courses) at UW-Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.