

# Bachelor of Science in Computer Science

<sup>4</sup> Lists of currently recommended courses for the laboratory science courses and probability/statistics elective are available from the SEECs; other courses may be accepted with approval from your advisor or the SEECs undergraduate program director.

Required 124 credits (36 of which must be numbered 300 or above) including:

I. Essential Studies Requirements (see University ES listing).

II. Computer Science required courses

| Code                 | Title  | Credits   |
|----------------------|--|-----------|
| CSCI 160             | Computer Science I                                 | 4         |
| CSCI 161             | Computer Science II <sup>1</sup>                   | 4         |
| CSCI 166             | Tools and Techniques of Computing Practice         | 3         |
| CSCI 242             | Algorithms and Data Structures <sup>1</sup>        | 3         |
| CSCI 265             | Introduction to Programming Languages <sup>1</sup> | 3         |
| CSCI 280             | Object Oriented Programming                        | 3         |
| CSCI 289             | Social Implications of Computer Technology         | 3         |
| CSCI 327             | Data Communications                                | 3         |
| CSCI 330             | Systems Programming <sup>1</sup>                   | 3         |
| CSCI 363             | User Interface Design                              | 3         |
| CSCI 364             | Concurrent and Distributed Programming             | 3         |
| CSCI 365             | Organization of Programming Languages <sup>1</sup> | 3         |
| CSCI 370             | Computer Architecture <sup>2</sup>                 | 4         |
| CSCI 435             | Formal Languages and Automata <sup>2</sup>         | 3         |
| CSCI 451             | Operating Systems I <sup>2</sup>                   | 3         |
| CSCI 455             | Database Management Systems                        | 3         |
| CSCI 463             | Software Engineering                               | 3         |
| CSCI 492             | Senior Project I <sup>2</sup>                      | 3         |
| CSCI 493             | Senior Project II <sup>2</sup>                     | 3         |
| <b>Total Credits</b> |  | <b>60</b> |

III. Program Required Electives

| Code                               | Title | Credits   |
|------------------------------------|-------|-----------|
| <b>CSCI electives <sup>3</sup></b> |       | <b>12</b> |
| <b>Total Credits</b>               |       | <b>12</b> |

IV. College of Engineering and Mines Requirements

| Code                 | Title | Credits  |
|----------------------|-------|----------|
| EE 201<br>& 201L     | and   | 4        |
| <b>Total Credits</b> |       | <b>4</b> |

V. Requirements outside of the College of Engineering and Mines

| Code  | Title                          | Credits   |
|---|--------------------------------|-----------|
| MATH 165  | Calculus I                     | 4         |
| MATH 166  | Calculus II                    | 4         |
| MATH 207  | Introduction to Linear Algebra | 2         |
| MATH 208  | Discrete Mathematics           | 3         |
| 2 Approved laboratory science courses <sup>4</sup>    |                                | 8         |
| Approved probability/statistics elective <sup>4</sup> |                                | 3         |
| <b>Total Credits</b>                                  |                                | <b>24</b> |

<sup>1</sup> Grade of 'C' or higher required

<sup>2</sup> Must be taken at UND

<sup>3</sup> A combined total of 6 credits from EECS 397 Cooperative Education or CSCI 399 Topics in Computer Science or CSCI 494 Special Projects in Computer Science may be applied toward these electives. The remaining electives must be UND Computer Science lecture courses numbered 300 or above.