## COMPUTER SCIENCE MAJOR REQUIREMENTS

**Effective Fall 2001**

A Computer Science major requires satisfying the BASE requirement, and the requirements for the Bachelor of Science degree or one of the three Bachelor of Arts options (Business, Computer Systems or Quantitative).

**GPA.** A minimum 2.5 GPA (cumulative in all courses required for the major) is required for admission to the major. Additionally, a minimum 2.0 ("C" grade) must be earned in CSC 2430, and a minimum 1.7 ("C-" grade) must be earned in each other course required for the major.

* These courses may fulfill a general education requirement.

### BASE REQUIREMENT -- B.S. OR B.A.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Details</th>
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<tbody>
<tr>
<td>37</td>
<td>MAT 1720 Mathematics for Computer Science (5)</td>
</tr>
<tr>
<td></td>
<td>CSC 1230 Problem Solving and Programming (5)</td>
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<tr>
<td></td>
<td>CSC 2430 Data Structures I (5)</td>
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<td></td>
<td>CSC 2431 Data Structures II (5)</td>
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<td></td>
<td>CSC 3150W Systems Design (5)</td>
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<td></td>
<td>CSC 3310 Concepts in Programming Languages (4)</td>
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<td></td>
<td>CSC 3350 Systems Programming (4)</td>
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<td></td>
<td>CSC 3430 Algorithm Design and Analysis (4)</td>
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</tbody>
</table>

### BASE REQUIREMENT

#### BASE + 69 Credits (Major Total = 106)

- 1 course from the following list:
  - CSC 2220 Scientific & Engineering Programming (3)
  - CSC 2221 Business Programming (3)
  - CSC 2224 Object-Oriented Programming (3)
  - CSC 3760 Computer Organization & Assembly Language (5)

- 16 credits CSC 4000 - 4899 (four courses)

- MAT 1225 Calculus I (5) *
- MAT 1226 Calculus II (5)
- MAT 1228 Series and Differential Equations (5)
- MAT 2375 Probability Theory (2)
- MAT 2376 Applied Statistics (3)
- PHY 1121 Physics for Science and Engineering (5) *
- PHY 1122 Physics for Science and Engineering (5) *
- PHY 1123 Physics for Science and Engineering (5) *
- EE 1210 Introduction to Logic System Design (5)
- EE 3280 Microcontroller System Design (5)

### BASE REQUIREMENT

#### BASE + 46 Credits (Major Total = 83)

- CSC 2220 Scientific & Engineering Programming (3)
- CSC 2221 Business Programming (3)
- CSC 2224 Object-Oriented Programming (3)
- CSC 3750 Computer Architecture and Organization (5)
- 8 credits CSC 4000 - 4899 (two courses)

- MAT 1221 Survey of Calculus (5) *
- OR- MAT 1225 Calculus I (5)
- MAT 1360 Introduction to Statistics (5) *
- ECN 2101 Principles of Micro Economics (5) *
- ACCT 2361 Financial Accounting (5)
- ACCT 2362 Managerial Accounting (5)
- OR- BUS 3250 Business Finance (5)
- BUS 3541W Marketing & Society (5)
- OR- BUS 3614 Organizational Behavior (5)

### BASE REQUIREMENT

#### BASE + 44 Credits (Major Total = 81)

- 1 course from the following list:
  - CSC 2220 Scientific & Engineering Programming (3)
  - CSC 2221 Business Programming (3)
  - CSC 2224 Object-Oriented Programming (3)
  - CSC 3750 Computer Architecture and Organization (5)

- 16 credits CSC 4000 - 4899 (four courses)

- MAT 1225 Calculus I (5) *
- MAT 1226 Calculus II (5)
- MAT 1228 Series and Differential Equations (5)
- MAT 1360 Introduction to Statistics (5) *

### BACHELOR OF SCIENCE REQUIREMENT

#### BASE + 69 Credits (Major Total = 106)

- 1 course from the following list:
  - CSC 2220 Scientific & Engineering Programming (3)
  - CSC 2221 Business Programming (3)
  - CSC 2224 Object-Oriented Programming (3)
  - CSC 3760 Computer Organization & Assembly Language (5)

- 16 credits CSC 4000 - 4899 (four courses)

- MAT 1225 Calculus I (5) *
- MAT 1226 Calculus II (5)
- MAT 1228 Series and Differential Equations (5)
- MAT 2375 Probability Theory (2)
- MAT 2376 Applied Statistics (3)
- PHY 1121 Physics for Science and Engineering (5) *
- PHY 1122 Physics for Science and Engineering (5) *
- PHY 1123 Physics for Science and Engineering (5) *
- EE 1210 Introduction to Logic System Design (5)
- EE 3280 Microcontroller System Design (5)

### BACHELOR OF ARTS REQUIREMENT

#### B.A. - BUSINESS OPTION

- BASE + 46 Credits (Major Total = 83)

- CSC 2220 Scientific & Engineering Programming (3)
- CSC 2221 Business Programming (3)
- CSC 2224 Object-Oriented Programming (3)
- CSC 3750 Computer Architecture and Organization (5)
- 8 credits CSC 4000 - 4899 (two courses)

- MAT 1221 Survey of Calculus (5) *
- OR- MAT 1225 Calculus I (5)
- MAT 1360 Introduction to Statistics (5) *
- ECN 2101 Principles of Micro Economics (5) *
- ACCT 2361 Financial Accounting (5)
- ACCT 2362 Managerial Accounting (5)
- OR- BUS 3250 Business Finance (5)
- BUS 3541W Marketing & Society (5)
- OR- BUS 3614 Organizational Behavior (5)

#### BACHELOR OF ARTS REQUIREMENT

#### B.A. - COMPUTER SYSTEMS OPTION

- BASE + 44 Credits (Major Total = 81)

- 1 course from the following list:
  - CSC 2220 Scientific & Engineering Programming (3)
  - CSC 2221 Business Programming (3)
  - CSC 2224 Object-Oriented Programming (3)
  - CSC 3750 Computer Architecture and Organization (5)

- 16 credits CSC 4000 - 4899 (four courses)

- MAT 1225 Calculus I (5) *
- MAT 1226 Calculus II (5)
- MAT 1228 Series and Differential Equations (5)
- MAT 1360 Introduction to Statistics (5) *

### BACHELOR OF ARTS REQUIREMENT

#### B.A. - COMPUTER & INFORMATION TECHNOLOGY OPTION

- BASE + 26 Credits (Major Total = 63 + specialization)

- 1 course from the following list: CSC 2220 (3); CSC 2221 (3); or CSC 2224 (3)
- CSC 3750 Computer Architecture and Organization (5)
- 8 credits CSC 4000 - 4899 (two courses)

- MAT 1221 Survey of Calculus (5) *
- OR- MAT 1225 Calculus I (5)
- MAT 1360 Introduction to Statistics (5) *

- plus specialization package, approved by Computer Science Department (varies).