Seattle Pacific University
Computer Science Curriculum
PREREQUISITE Diagram

Effective
FALL
2002

MAT 1360 (or MAT 1221/1225)
MAT 1720 (5)
Mathematics for
Computer Science

CSC 1230 (5)
Problem Solving
and Programming

CSC 2430 (5)
Data Structures I

CSC 2431 (5)
Data Structures II

MAT 1720/2720
and
MAT 1221/1225
CSC 2431

MAT 1360/2376
and
MAT 1720/2720
and
MAT 1221/1225

CSC 3430 (4)
Algorithm Design
& Analysis

CSC 3750 (5) (BA)
Computer Architecture
& Organization

CSC 3760 (5) (BS)
Computer Organization
& Assm Language

CSC 3310 (4)
Concepts in Prog. Lang.

CSC 3750/3760
CSC 3750 or CSC 3760

CSC 3350 (4)
Systems Programming

CSC 4210 (4)
Theory of Algorithms
and Computation

CSC 4760 (4)
Advanced Computer
Architecture

CSC 4750 (4)
Computer Networks

CSC 4350 (4)
Operating Systems

CSC 4310 (4)
Compiler Design

CSC 4510 (4)
Graphical User Interface (GUI)
Design and Programming

CSC 4750 (4)

CSC 3150W (5)
Systems Design

CSC 2431
CSC 222x
CSC 4210
CSC 3310
CSC 3750/3760

CSC 3899W (3)
Ethical and Social Issues in
Computer Science

CSC 4800 (2 - 5)
CSC 4810W (2 - 5) ["W" Writing]
Advanced Issues in Computer Science

Sr. CSC Major
CSC 4990 (2)
Senior Capstone in
Computer Science

Jr. or Sr. class standing
Various Prerequisites and Credits
A Computer Science major requires satisfying the BASE requirement, plus the requirements for the Bachelor of Science B.S. degree or one of the three Bachelor of Arts options (B.A.-Business; B.A.-Computer Systems; or B.A.-Computer and Information Technology).

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 2420, and a minimum 1.7 ("C-" grade) must be earned in each other course required for the major.

[Note: Courses marked with * may fulfill a general education requirement.]

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 1230 Problem Solving and Programming</td>
<td>5</td>
</tr>
<tr>
<td>CSC 2430 Data Structures I</td>
<td>5</td>
</tr>
<tr>
<td>CSC 2431 Data Structures II</td>
<td>5</td>
</tr>
<tr>
<td>CSC 3150W Systems Design</td>
<td>5</td>
</tr>
<tr>
<td>CSC 3310 Concepts in Programming Languages</td>
<td>4</td>
</tr>
<tr>
<td>CSC 3350 Systems Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC 3430 Algorithm Design and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CSC 4990 Senior Capstone in Comp.Sci.</td>
<td>2</td>
</tr>
</tbody>
</table>

### B.S. BACHELOR OF SCIENCE REQUIREMENT

**BASE + 72 Credits (Major Total = 106)**

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

- 16 credits (four courses):
  - CSC 4000 - 4899

- 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)
- MAT 2720 Discrete Mathematics (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 + 51 Credits (Major Total = 85)**

- CSC 2221 Programming Techniques (3)
- CSC 3750 Computer Architecture and Organization (5)
- 8 credits (two courses):
  - CSC 4000 - 4899
- MAT 1720 Mathematics for Computer Science (5)
- 1 course from the following list:
  - MAT 1221 Survey of Calculus (5) *
  - MAT 1225 Calculus I (5) *
- MAT 1360 Introduction to Statistics (5) *
- ECN 2101 Principles of Micro Economics (5) *
- ACCT 2361 Financial Accounting (5)
- 1 course from the following list:
  - ACCT 2362 Managerial Accounting (5)
  - BUS 3250 Business Finance (5)

- 1 course from the following list:
  - BUS 3541W Marketing & Society (5)
  - BUS 3614 Organizational Behavior (5)

### BACHELOR OF ARTS REQUIREMENT

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

**BASE + 49 Credits (Major Total = 83)**

- 1 course from the following list:
  - CSC 2220 (3); CSC 2221 (3); or CSC 2224 (3)
  - CSC 3750 Computer Architecture and Organization (5)
- 16 credits (four courses):
  - CSC 4000 - 4899
- MAT 1720 Mathematics for Computer Science (5)
- MAT 1225 Calculus I (5) *
- MAT 1226 Calculus II (5)
- MAT 1228 Series and Differential Equations (5)
- MAT 1360 Introduction to Statistics (5) *
- MAT 1221 Survey of Calculus (5) *
- MAT 1225 Calculus I (5) *
- MAT 1360 Introduction to Statistics (5) *
- Specialization CITech package, as approved by the Computer Science Department (varies).

### BACHELOR OF ARTS REQUIREMENT

**B.A. - COMPUTER SYSTEMS OPTION**

**BASE + 31 Credits (Major Total = 65 + 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 (two courses):
  - CSC 4000 - 4899
- MAT 1720 Mathematics for Computer Science (5)
- MAT 1221 Survey of Calculus (5) *
- MAT 1225 Calculus I (5) *
- MAT 1360 Introduction to Statistics (5) *
- Specialization CITech package, as approved by the Computer Science Department (varies).