### Computing & Networking Sciences Emphasis

<table>
<thead>
<tr>
<th>COURSE NO</th>
<th>COURSE TITLE</th>
<th>PREREQUISITE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1400*</td>
<td>Fundamentals of Programming</td>
<td>MAT 1000 or MAT 1010. CS 1030 recommended</td>
<td>3.0</td>
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<tr>
<td>CS 1410*</td>
<td>Object-Oriented Programming</td>
<td>CS 1400</td>
<td>3.0</td>
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<tr>
<td>CS 2300*</td>
<td>Discrete Mathematical Structures I</td>
<td>CS 1410, MATH 1050</td>
<td>3.0</td>
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<tr>
<td>CS 2420*</td>
<td>Intro to Algorithms and Data Structures</td>
<td>CS 1410</td>
<td>3.0</td>
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<tr>
<td>CS 2600*</td>
<td>Fundamentals of Data Communications</td>
<td>CS 2810 or (INFO 1200 &amp; IT 1600)</td>
<td>3.0</td>
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<tr>
<td>CS 2690*</td>
<td>Computer Networks II</td>
<td>CS 2300, 2600, MATH 1210</td>
<td>3.0</td>
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<tr>
<td>CS 2810*</td>
<td>Computer Organization and Architecture</td>
<td>CS 1400</td>
<td>3.0</td>
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<tr>
<td>CS 3060*</td>
<td>Operating Systems Theory</td>
<td>CS 2420, 2810, UAS</td>
<td>3.0</td>
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<tr>
<td>CS 3250*</td>
<td>Java Software Development</td>
<td>CS 2420, UAS</td>
<td>3.0</td>
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<tr>
<td>or 3260*</td>
<td>C#.NET Software Development</td>
<td>CS 2420, UAS</td>
<td>3.0</td>
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<tr>
<td>or 3270*</td>
<td>Python Software Development</td>
<td>CS 2420, UAS</td>
<td>3.0</td>
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<tr>
<td>or 3370*</td>
<td>C++ Software Development</td>
<td>CS 2300, 2420, UAS</td>
<td>3.0</td>
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<tr>
<td>CS 3520*</td>
<td>Database Theory</td>
<td>CS 2300, 2420, UAS</td>
<td>3.0</td>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Writing</td>
<td>ENGL 1000 with C- or higher (or appropriate test scores within 3 years)</td>
<td>3.0</td>
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</tbody>
</table>

**HUMANITIES/FINE ARTS** (COMM 1020* recommended)
- 3.0

**COMM 2110** Interpersonal Communications
- 3.0

**MATH 1060** Trigonometry
- MATH 1050 (Min. grade of C) (within two years) 3.0

**BIOLOGY** (select from approved list) or
**PHYS 2210** Physics for Scientists and Engineers I (4)
- MATH 1210 Corequisite: PHYS 2215

**PHYSICAL EDUCATION/HEALTH** (HLTH 1100 or PES 1097 recommended)
- 1.0

Complete a minimum of 18 credits from the following*

**CS 1030 Foundations of Computer Science**

**CS 3250 C++ Software Development (3)**

**CS 3370 C++ Software Development (3)**

**CS 2450 Software Engineering (3)**

**CS 2550 Web Programming I (3)**

**CS 281R Internship (3)**

**CS 3260 C#.NET Software Development (3)**

**CS 3410 Human Factors in Software Engineering (3)**

**CS 3660 Web Programming II (3)**

**CS 3670 Network Programming (3)**

**CS 4470 Artificial Intelligence (3)**

**CS 4610 TCP/IP Internet Architecture (3)**

**ECE 2700 & 2705 Digital Design I & Lab (4)**

**ECE 3750 Engineering Analysis (3)**

**IT 1510 Introduction to System Administration Linux/UNIX (3)**

**IT 3510 System Administration Linux/UNIX (3)**

**MATH 1210 Calculus I (5)**

**MATH 1220 Calculus II (5)**

**PHYS 2215 Physics for Scientists & Engineers I Lab (1)**

**MATH 1210 Calculus I (5)**

**MATH 1220 Calculus II (5)**

**PHYS 2215 Physics for Scientists & Engineers I Lab (1)**

**Total Credits Required for A.A.S. Degree** 64.0

* NOTE: Minimum grade of "C-" required in these and all courses marked with asterisk*. Minimum cumulative GPA of 2.0 required.

UAS University Advanced Standing: Completion of min of 24 credits of 1000 or higher, completion of ENGL 1010 & MAT 1010 or higher, & min 2.0 GPA.

Residency hours - minimum of 20 credit hours through course attendance at UVU required.

◆ NOTE: Students planning to continue on for a Bachelor’s Degree should work closely with a CS Advisor.

Advisors: Patti Miner (801) 863-8408 minerpa@uvu.edu Fred Orchard (801) 863-6238 fred.orchard@uvu.edu
ASSOCIATE IN APPLIED SCIENCE DEGREE
COMPUTER SCIENCE
COMPUTING and NETWORKING SCIENCES EMPHASIS

Following is a diagram of a sequence which may be followed to complete the A.A.S. Degree. Students should be aware that not all courses are taught every semester and that some courses require prerequisites. (Prerequisites that are not major requirements are listed inside the dotted lines.) The UVU catalog contains the descriptions and prerequisites for all courses.

Students should coordinate closely with the Computer Science advisors to avoid needing courses in semesters in which they are not taught.