

# Computer Programming

## Associate of Applied Science Degree

CP23

### Curriculum

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<b>General Education Core</b>	<b>15</b>
<b>Area I: Language Arts/Communication</b>	
ENGL 1101 Composition and Rhetoric (3)	3
<b>Area II: Social/Behavioral Sciences (Choose ONE course)</b>	
ECON 1101 Principles of Economics (3)	3
ECON 2105 Principles of Macroeconomics (3)	3
ECON 2106 Principles of Microeconomics (3)	3
HIST 1111 World History I (3)	3
HIST 1112 World History II (3)	3
HIST 2111 American History I (3)	3
HIST 2112 American History II (3)	3
POLS 1101 American Government (3)	3
PSYC 1101 Introduction to Psychology (3)	3
SOC 1101 Introduction to Sociology (3)	3
<b>Area III: Natural Sciences / Mathematics (Choose ONE course)</b>	
MATH 1101 Mathematical Modeling (3)	3
MATH 1103 Quantitative Skill and Reasoning (3)	3
MATH 1111 College Algebra (3)	3
<b>Area IV: Humanities/Fine Arts (Choose ONE course)</b>	
ARTS 1101 Art Appreciation (3)	3
ENGL 2130 American Literature (3)	3
HUMN 1101 Introduction to Humanities (3)	3
MUSC 1101 Music Appreciation (3)	3
RELG 1101 Introduction to World Religions (3)	3
<b>Elective: General Education (Choose ONE course)</b>	
Choose one course from Area I, II, III, or IV listed above	3
OR	
BIOL 1111 Biology I (3) + BIOL 1111L Biology I Lab (1)	
BIOL 1112 Biology II (3) + BIOL 1112L Biology II Lab (1)	
CHEM 1211 Chemistry I (3) + CHEM 1211L Chemistry I Lab (1)	
CHEM 1212 Chemistry II (3) + CHEM 1212L Chemistry II Lab (1)	
MATH 1127 Introduction to Statistics (3)	
MATH 1131 Calculus I (4)	
MATH 1132 Calculus II (4)	
PHYS 1110 Conceptual Physics (3) + PHYS 1110L Conceptual Physics Lab (1)	
PHYS 1111 Introductory Physics I (3) + PHYS 1111L Introductory Physics I Lab (1)	
PHYS 1112 Introductory Physics II (3) + PHYS 1112L Introductory Physics II Lab (1)	
ENGL 1102 Literature and Composition (3)	
SPCH 1101 Public Speaking (3)	

**Occupational Courses**

**50**

**Required Courses:**

24

- COMP 1000 Introduction to Computers (3)
- CIST 1001 Computer Concepts (4)
- CIST 1210 Introduction to Oracle Databases (4)
- CIST 1305 Program Design and Development (3)
- CIST 1510 Web Development I (3)
- CIST 2921 IT Analysis, Design, and Project Management (4)
- CIST 1601 Information Security Fundamentals (3)

**Occupational Electives:** *(Choose ONE course)*

3

- ACCT 1100 Financial Accounting I (4)
- BUSN 1300 Introduction to Business (3)
- MGMT 1120 Introduction to Business (3)

**Occupational Elective:** *(Choose ONE course from the following or an additional programming course)*

3

- CIST 1130 Operating Systems Concepts (3)
- CIST 1401 Computer Networking Fundamentals (4)
- CIST 2212 Oracle Database Administration I (4)
- CIST 2127 Comprehensive Word Processing Techniques (3)
- CIST 2128 Comprehensive Spreadsheet Techniques (3)
- CIST 2129 Comprehensive Database Techniques (4)

**Programming Language Course Electives**

20

*(Choose FIVE courses from the following (at least two of which must be CIST23x2 or CIST23x3))*

- CIST 2311 Visual Basic I (4)
- CIST 2312 Visual Basic II (4)
- CIST 2341 C# Programming I (4)
- CIST 2342 C# Programming II (4)
- CIST 2371 Java Programming I (4)
- CIST 2372 Java Programming II (4)
- CIST 2381 Mobile Application Development I (4)
- CIST 2382 Mobile Application Development II (4)
- CIST 2383 User Experience (4)

**Total Credit Hour (minimum):**

**65**