

## SCHOOL OF BUSINESS AND TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE

### FACULTY

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<https://bulldog.swosu.edu/academics/computer-science/index.php>

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### DEPARTMENTAL GOALS

Student Learning Outcomes for the Bachelor of Science in Computer Science:

1. Describe the fundamentals of problem solving, communication, and team work as they pertain to the field of computer science with focus on the elected option: computer forensics, cybersecurity, data analytics, management information systems, software development, or video game design.
2. Apply troubleshooting techniques in networks and other technologies and problem-solving techniques to successfully execute programming code with a team.
3. Given a professional project, investigate possible solutions; develop, formulate, and present chosen solution.

The Department of Computer Science provides students the opportunity to prepare for professional opportunities in industry and education.

Particular areas addressed by the Bachelor of Science in Computer Science:

1. Broad-based technical problems allow graduates to explore new and advancing technologies.
2. Prepare members of the work force to meet area, state and regional demands for technology in industry and education.
3. Develop curriculum and maintain faculty, equipment, and facilities to meet the standards set by appropriate state and national accrediting agencies.

### PROGRAMS OF STUDY

**Majors:** B.S. Computer Science

- Computer Forensics Option
- Cybersecurity Option
- Data Analytics Option
- Management Information Systems Option
- Software Development Option
- Video Game Design Option

A.S. Computer Science

**Minors:** Computer Science

Forensics  
Information Systems

### GENERAL INFORMATION

Career opportunities are numerous in all technology fields and command competitive salaries. Examples of recent graduate placements are manufacturing engineering technologists, quality assurance managers, plant and production supervisors, production analysts, planners and schedulers, and estimators.

Within the Department of Computer Science, the student organization – the Computer Club – promotes professional development and social activities. The club meets on a regular basis and organizes activities such as industrial plant tours, robotics competitions, and educational conferences.

For more information visit our web site at:

<https://bulldog.swosu.edu/academics/computer-science/index.php>

## BACHELOR OF SCIENCE COMPUTER SCIENCE (COMSC.BS)

### GENERAL EDUCATION (Min. 40 hours)

**Courses that are required.** *Courses that are recommended.*

<b>Communication</b> .....	<b>9</b>
<b>ENGL 1113 English Composition I</b>	
<b>ENGL 1213 English Composition II</b>	
<b>COMM 1313 Introduction to Public Speaking</b> OR	
<b>TECH 3143 Technical Presentations</b> ( <i>if permitted by degree program</i> )	
<b>Quantitative Reasoning</b> .....	<b>3</b>
<i>Select one course.</i>	
<b>MATH 1143 Mathematical Concepts</b>	
<b>MATH 1153 Mathematical Applications</b>	
<b>MATH 1193 Elementary Statistics</b>	
<b>MATH 1313 Functions and Modeling</b>	
<b>MATH 1513 College Algebra</b>	
or a higher numbered math course	
<b>U. S. History</b> .....	<b>3</b>
<i>Select one course.</i>	
<b>HIST 1043 U.S. History to 1877</b>	
<b>HIST 1053 U.S. History since 1877</b>	
<b>American Government</b> .....	<b>3</b>
<b>POLSC 1103 American Government &amp; Politics</b>	
<b>Science</b> .....	<b>7-8</b>
<i>Select one course from Life Science and one course from Physical Science. One Science course must be a lab science.</i>	
<b>Life Science</b> .....	<b>3-4</b>
<b>BIOL 1004 Biological Concepts w/Lab</b>	
<b>BIOL 1013 Current Issues in Biology</b>	
<b>BIOL 1054 Principles of Biology I w/Lab</b>	
<b>Physical Science</b> .....	<b>3-4</b>
<b>ASTRO 1904 Astronomy</b>	
<b>CHEM 1004 General Chemistry w/Lab</b>	
<b>GEOL 1934 Physical Geology w/Lab</b>	
<b>PHY 1044 Basic Physics I w/Lab</b>	
<b>PHY 1063 General Physics</b> (or a higher numbered chemistry or physics course)	
<b>SCI 1501 Concepts of Physical Science Lab</b>	
<b>SCI 1513 Conc of Phy Science</b> (can be taken w/wo lab)	
<b>Humanities and Social Science</b> .....	<b>12</b>
<i>Select one course from the first two sub-categories. The two bolded courses in the last sub-category are required.</i>	
<b>Humanities</b> .....	<b>3</b>
<b>GEOG 1103 World Cultural Geography</b>	
<b>HIST 1033 World History</b>	
<b>HUM 1103 Introduction to Humanities</b>	
<b>Fine Arts</b> .....	<b>3</b>
<b>ART 1223 Art Survey</b>	
<b>COMM 1263 Introduction to Theatre</b>	
<b>LIT 2333 Introduction to Film</b>	
<b>LIT 2413 Introduction to Literature</b>	
<b>MUSIC 1013 Introduction to Music I</b>	
<b>MUSIC 1103 Music and Culture</b> (Music majors only)	
<b>MUSIC 1123 History of Rock-n-Roll</b>	
<b>PHILO 1453 Introduction to Philosophy</b>	
<b>Social and Human Sciences</b> .....	<b>6</b>
<b>ASL 2163 American Sign Language I</b>	
<b>ECONO 2263 Intro to Macroeconomics</b>	
<b>ECONO 2363 Intro to Microeconomics</b>	
<b>ENTRP 1123 Intro to Business</b>	
<b>FINAN 2113 Personal Financial Planning</b>	
<b>ITAL 1004 Elementary Italian I</b>	
<b>KINES 1133 Wellness Conc &amp; Exercise Applications</b>	
<b>LATIN 1054 Elementary Latin I</b> (or higher number)	
<b>PSYCH 1003 General Psychology</b>	
<b>SOCIO 1003 Introduction to Sociology</b>	
<b>SPAN 1054 Elementary Spanish I</b> (or higher number)	
<b>TECH 1223 Technology and Society</b>	
<b>Computer Proficiency</b> .....	<b>3</b>
<b>COMSC 1023 Computers and Info Access</b>	

### COMPUTER SCIENCE MAJOR

<b>Required Courses</b> .....	<b>33</b>
<b>COMSC 1033 Computer Science I</b>	
<b>COMSC 1053 Computer Science II</b>	
<b>COMSC 1103 Intro to Information Security &amp; Ethics</b>	
<b>COMSC 2043 Discrete Structures</b>	
<b>COMSC 3053 Operating Systems</b>	
<b>COMSC 3153 Data Communications &amp; Networks</b>	
<b>COMSC 4173 Mobile Applications</b>	
<b>COMSC 4513 Business Intelligence</b>	
<b>COMSC 4953 CS/IS Capstone I</b>	
<b>ENTRP 3113 Intro to MIS</b>	
<b>TECH 3143 Technical Presentations</b>	
<b>Approved Computer Science Electives</b> .....	<b>9</b>
1000/2000 Level Computer Science Electives (0-3)	
3000/4000 Level Computer Science Electives (6-9)	
<b>Choose an option below</b> .....	<b>21-22</b>
<b>Computer Forensics Option</b> .....	<b>21</b>
<b>Required Courses</b> .....	<b>18</b>
<b>COMSC 2603 Network Security</b>	
<b>COMSC 3253 Introduction to Computer Forensics</b>	
<b>COMSC 3403 Database Systems</b>	
<b>COMSC 3603 Hardware/Software Concepts</b>	
<b>COMSC 3853 Computer Forensics Analysis</b>	
<b>CRMJS 1113 Intro to Criminal Justice</b>	
<b>Auxiliary Requirement†</b> .....	<b>3</b>
<b>CRMJS 3163 Sociology Deviant &amp; Criminal Behavior</b>	
<b>PSYCH 3323 Abnormal Psychology</b>	
<b>PSYCH 3363 Psychology of Personality</b>	
<b>Cybersecurity Option</b> .....	<b>21</b>
<b>Required Courses</b> .....	<b>18</b>
<b>COMSC 2603 Network Security</b>	
<b>COMSC 3403 Database Systems</b>	
<b>COMSC 3413 Introduction to Cybersecurity</b>	
<b>COMSC 3613 Cybersecurity Ethics &amp; Law</b>	
<b>COMSC 4143 Server Management</b>	
<b>CRMJS 1113 Intro to Criminal Justice</b>	
<b>Auxiliary Requirement†</b> .....	<b>3</b>
<b>CRMJS 3163 Sociology Deviant &amp; Criminal Behavior</b>	
<b>PSYCH 3323 Abnormal Psychology</b>	
<b>PSYCH 3363 Psychology of Personality</b>	
<b>Data Analytics Option</b> .....	<b>21</b>
<b>Required Courses</b> .....	<b>18</b>
<b>COMSC 2413 Data Structures</b>	
<b>COMSC 3013 Computer Architecture</b>	
<b>COMSC 3133 Software Engineering</b>	
<b>COMSC 3913 Web Development</b>	
<b>COMSC 4133 Design &amp; Analysis of Computer Algorithms</b>	
<b>ECONO 2463 Business Statistics</b>	
<b>Auxiliary Requirement†</b> .....	<b>3</b>
<b>ENTRP 3823 Quantitative Methods in Business</b>	
<b>MNGMT 3233 Management</b>	
<b>MNGMT 4133 Production Operations Management</b>	
<b>MRKTG 3143 Principles of Marketing</b>	
<b>MRKTG 4243 Marketing Research</b>	
<b>Management Information Systems Option</b> .....	<b>21</b>
<b>Required Courses</b> .....	<b>21</b>
<b>COMSC 2603 Network Security</b>	
<b>COMSC 3403 Database Systems</b>	
<b>COMSC 3913 Web Development</b>	
<b>COMSC 4043 Geographical Information Systems</b>	
<b>COMSC 4143 Server Management</b>	
<b>ECONO 2463 Business Statistics</b>	
<b>ENTRP 3823 Quantitative Methods in Business</b>	

**Software Development Option .....21-22**

**Required Courses .....15**

- COMSC 2413 Data Structures
- COMSC 3013 Computer Architecture
- COMSC 3133 Software Engineering
- COMSC 3603 Hardware/Software Concepts
- COMSC 4133 Design & Analysis of Computer Algorithms

**Auxiliary Requirements† ..... 6-7**

- MATH 1834 Calculus I
- OR** MATH 2823 Applied Calculus
- MATH 3433 Statistics I
- OR** MATH 3413 Statistical Methods

**Video Game Design Option .....21**

**Required Courses .....21**

- COMSC 2463 Programming in C# with Unity
- COMSC 2473 Programming in C++
- COMSC 3123 Introduction to eSports Management
- COMSC 3133 Software Engineering
- ENGL 4653 Writing for Multimedia
- ENTRP 4123 Professional Development
- MRKTG 3143 Principles of Marketing

† Auxiliary Requirements may have prerequisite course requirements. Please check the SWOSU Course Descriptions prior to enrollment.

**Electives to bring total to ..... 120**

**TOTAL HOURS..... 120**

**REGULATIONS PERTAINING TO GRADUATION**

- Minimum credit hours for graduation .....120
- Minimum credit hours in the liberal arts & sciences..... 55
- Minimum credit hours in upper-division  
(3000/4000 courses)..... 40
- Minimum credit hours (3000/4000 courses)  
in major completed at SWOSU ..... 12
- Minimum credit hours at SWOSU (15 of the last 30) ..... 30
- Minimum Grade Point Average in all coursework.....2.00
- Minimum Grade Point Average in major .....2.00

**COMPUTER SCIENCE MAJOR**  
**Computer Forensics Option**  
**Suggested Course Sequence**

**FIRST YEAR**

FIRST SEMESTER	SECOND SEMESTER
1003 General Psychology (3) 1023 Computers & Information Access (3) 1033 Computer Science I.(3) 1051 SWOSUConnect* (1) 1113 English Composition I (3) 1513 College Algebra (3)	1053 Computer Science II (3) 1103 Intro to Information Security & Ethics (3) 1103 American Government & Politics (3) 1213 English Composition II (3) SCIENCE Course #1 (4)
Total (16)	Total (16)

**SECOND YEAR**

FIRST SEMESTER	SECOND SEMESTER
1043 or 1053 U.S. History (3) 1113 Introduction to Criminal Justice 1313 Introduction to Public Speaking (3) 2043 Discrete Structures (3) 2603 Network Security (3)	2263 Introduction to Macroeconomics (3) 3253 Introduction to Computer Forensics (3) Computer Science (COMSC) Elective** (3) Humanities Course (3) SCIENCE Course #2 (3)
Total (15)	Total (15)

**THIRD YEAR**

FIRST SEMESTER	SECOND SEMESTER
3053 Operating Systems (3) 3113 Introduction to MIS (3) 3603 Hardware/Software Concepts (3) Computer Science (COMSC) Elective** (3) Fine Arts Course (3)	3153 Data Communications & Networks (3) 3403 Database Systems (3) 4173 Mobile Applications (3) 4513 Business Intelligence (3) Free Electives (3)
Total (15)	Total (15)

**FOURTH YEAR**

FIRST SEMESTER	SECOND SEMESTER
3143 Technical Presentations (3) Computer Science (COMSC) Elective** (3) Forensics Auxiliary Requirement (3) Free Electives (6)	3853 Computer Forensics Analysis (3) 4953 CS/IS Capstone (3) Free Electives (7)
Total (15)	Total (13)

\* First time entering SWOSU students need to take 1051 SWOSUConnect.

\*\*1000-2000 level Computer Science (COMSC) course (0-3 hours); 3000-4000 level Computer Science (COMSC) course (6-9 hours)

**COMPUTER SCIENCE MAJOR**  
**Cybersecurity Option**  
**Suggested Course Sequence**

**FIRST YEAR**

FIRST SEMESTER	SECOND SEMESTER
1003 General Psychology (3) 1023 Computers & Information Access (3) 1033 Computer Science I (3) 1051 SWOSUConnect* (1) 1113 English Composition I (3) 1513 College Algebra (3)	1053 Computer Science II (3) 1103 Introduction to Information Security & Ethics(3) 1103 American Government & Politics (3) 1213 English Composition II (3) SCIENCE Course #1 (4)
Total (16)	Total (16)

**SECOND YEAR**

FIRST SEMESTER	SECOND SEMESTER
1043 or 1053 U.S. History (3) 1113 Introduction to Criminal Justice (3) 1313 Introduction to Public Speaking (3) 2043 Discrete Structures (3) 2603 Network Security (3)	2263 Introduction to Macroeconomics (3) 3403 Database Systems (3) Computer Science (COMSC) Elective** (3) Humanities Course (3) Science Course #2 (3)
Total (15)	Total (15)

**THIRD YEAR**

FIRST SEMESTER	SECOND SEMESTER
3053 Operating Systems (3) 3113 Introduction to MIS (3) 3413 Introduction to Cybersecurity (3) Computer Science (COMSC) Elective** (3) Fine Arts Course (3)	3153 Data Communications & Networks (3) 3613 Cybersecurity Ethics & Law(3) 4173 Mobile Applications (3) 4513 Business Intelligence (3) Free Electives (3)
Total (15)	Total (15))

**FOURTH YEAR**

FIRST SEMESTER	SECOND SEMESTER
3143 Technical Presentations (3) Computer Science (COMSC) Elective** (3) Cybersecurity Auxiliary Requirement (3) Free Electives (6)	4143 Server Management (3) 4953 CS/IS Capstone (3) Free Electives (7)
Total (15)	Total (13)

\* First time entering SWOSU students need to take 1051 SWOSUConnect.

\*\*1000-2000 level Computer Science (COMSC) course (0-3 hours); 3000-4000 level Computer Science (COMSC) course (6-9 hours).

**COMPUTER SCIENCE MAJOR**  
**Data Analytics Option**  
**Suggested Course Sequence**

**FIRST YEAR**

FIRST SEMESTER	SECOND SEMESTER
1003 General Psychology (3) 1023 Computers & Information Access (3) 1033 Computer Science I (3) 1051 SWOSUConnect* (1) 1113 English Composition I (3) 1513 College Algebra (3)	1053 Computer Science II (3) 1103 Introduction to Information Security & Ethics(3) 1103 American Government & Politics (3) 1213 English Composition II (3) Science Course #1 (4)
Total (16)	Total (16)

**SECOND YEAR**

FIRST SEMESTER	SECOND SEMESTER
1043 or 1053 U.S. History (3) 1313 Introduction to Public Speaking (3) 2043 Discrete Structures (3) 2413 Data Structures (3) 2463 Business Statistics (3)	2263 Introduction to Macroeconomics (3) Computer Science (COMSC) Elective** (3) Data Analytics Auxiliary Requirement (3) Humanities Course (3) Science Course #2 (3)
Total (15)	Total (15)

**THIRD YEAR**

FIRST SEMESTER	SECOND SEMESTER
3013 Computer Architecture (3) 3053 Operating Systems (3) 3113 Introduction to MIS (3) Computer Science (COMSC) Elective** (3) Fine Arts Course (3)	3133 Software Engineering (3) 3153 Data Communications & Networks (3) 4173 Mobile Applications (3) Free Elective (3)
Total (15)	Total (12)

**Summer before FOURTH YEAR**

FIRST SEMESTER
4133 Design & Analysis of Computer Algorithms (3)
Total (3)

**FOURTH YEAR**

FIRST SEMESTER	SECOND SEMESTER
3143 Technical Presentations (3) 3913 Web Development (3) Computer Science (COMSC) Elective** (3) Free Electives (6)	4513 Business Intelligence (3) 4953 CS/IS Capstone (3) Free Electives (7)
Total (15)	Total (13)

\* First time entering SWOSU students need to take 1051 SWOSUConnect.

\*\*1000-2000 level Computer Science (COMSC) course (0-3 hours); 3000-4000 level Computer Science (COMSC) course (6-9 hours).

**COMPUTER SCIENCE MAJOR**  
**Management Information Systems Option**  
**Suggested Course Sequence**

**FIRST YEAR**

FIRST SEMESTER	SECOND SEMESTER
1003 General Psychology (3) 1023 Computers & Information Access (3) 1033 Computer Science I (3) 1051 SWOSUConnect* (1) 1113 English Composition I (3) 1513 College Algebra (3)	1053 Computer Science II (3) 1103 Introduction to Information Security & Ethics (3) 1103 American Government & Politics (3) 1213 English Composition II (3) Science Course #1 (4)
Total (16)	Total (16)

**SECOND YEAR**

FIRST SEMESTER	SECOND SEMESTER
1043 or 1053 U.S. History (3) 1313 Introduction to Public Speaking (3) 2043 Discrete Structures (3) 2463 Business Statistics (3) 2603 Network Security (3)	2263 Introduction to Macroeconomics (3) 3403 Database Systems (3) Computer Science (COMSC) Elective** (3) Humanities Course (3) Science Course #2 (3)
Total (15)	Total (15)

**THIRD YEAR**

FIRST SEMESTER	SECOND SEMESTER
3053 Operating Systems (3) 3113 Introduction to MIS (3) 3913 Web Development (3) Computer Science (COMSC) Elective** (3) Fine Arts Course (3)	3153 Data Communications & Networks (3) 3823 Quantitative Methods in Business(3) 4043 Geographic Information Systems (3) 4173 Mobile Applications (3) Free Electives (3)
Total (15)	Total (15))

**FOURTH YEAR**

FIRST SEMESTER	SECOND SEMESTER
3143 Technical Presentations (3) 4143 Server Management (3) Computer Science (COMSC) Elective** (3) Free Electives (6)	4513 Business Intelligence (3) 4953 CS/IS Capstone (3) Free Electives (7)
Total (15)	Total (13)

\* First time entering SWOSU students need to take 1051 SWOSUConnect.

\*\*1000-2000 level Computer Science (COMSC) course (0-3 hours); 3000-4000 level Computer Science (COMSC) course (6-9 hours).

## COMPUTER SCIENCE MAJOR Software Development Option Suggested Course Sequence

### FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1003 General Psychology (3) 1023 Computers & Information Access (3) 1033 Computer Science I (3) 1051 SWOSUConnect* (1) 1113 English Composition I (3) 1513 College Algebra (3)	1053 Computer Science II (3) 1103 Introduction to Information Security & Ethics(3) 1103 American Government & Politics (3) 1213 English Composition II (3) Science Course #1 (4)
Total (16)	Total (16)

### SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1043 or 1053 U.S. History (3) 1313 Introduction to Public Speaking (3) 1834 Calculus I (4) <b>OR</b> 2823 Applied Calculus (3) 2043 Discrete Structures (3) 2413 Data Structures (3)	2263 Introduction to Macroeconomics (3) 3413 Statistical Methods (3) <b>OR</b> 3433 Statistics I (3) Computer Science (COMSC) Elective** (3) Humanities Course (3) Science Course #2 (3)
Total (15-16)	Total (15)

### THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
3053 Operating Systems (3) 3113 Introduction to MIS (3) 3603 Hardware/Software Concepts (3) Computer Science (COMSC) Elective** (3) Fine Arts Course (3)	3133 Software Engineering (3) 3153 Data Communications & Networks (3) 4173 Mobile Applications (3) Free Elective (3)
Total (15)	Total (12)

### Summer before FOURTH YEAR

FIRST SEMESTER
4133 Design & Analysis of Computer Algorithms (3)
Total (3)

### FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
3013 Computer Architecture (3) 3143 Technical Presentations (3) Computer Science (COMSC) Elective** (3) Free Electives (6)	4513 Business Intelligence (3) 4953 CS/IS Capstone (3) Free Electives (6-7)***
Total (15)	Total (12-13)

\* First time entering SWOSU students need to take 1051 SWOSUConnect.

\*\*1000-2000 level Computer Science (COMSC) course (0-3 hours); 3000-4000 level Computer Science (COMSC) course (6-9 hours)

\*\*\*Only 6 hours Free Electives needed if 4-hour MATH (1834 Calculus I) was taken.



## COMPUTER SCIENCE MAJOR Video Game Design Option Suggested Course Sequence

### FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1003 General Psychology (3) 1023 Computers & Information Access (3) 1033 Computer Science I (3) 1051 SWOSUConnect* (1) 1113 English Composition I (3) 1513 College Algebra (3)	1053 Computer Science II (3) 1103 Introduction to Information Security & Ethics (3) 1103 American Government & Politics (3) 1213 English Composition II (3) Science Course #1 (4)
Total (16)	Total (16)

### SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1043 or 1053 U.S. History (3) 1313 Introduction to Public Speaking (3) 2043 Discrete Structures (3) 2473 Programming in C++ (3) Free Elective (3)	2263 Introduction to Macroeconomics (3) 2463 Programming in C++ with Unity (3) Computer Science (COMSC) Elective** (3) Humanities Course (3) Science Course #2 (3)
Total (15)	Total (15)

### THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
3053 Operating Systems (3) 3113 Introduction to MIS (3) 3123 Introduction to eSports Management (3) Computer Science (COMSC) Elective** (3) Fine Arts Course (3)	3133 Software Engineering (3) 3143 Principles of Marketing (3) 3153 Data Communications & Networks (3) 4173 Mobile Applications (3) 4513 Business Intelligence (3)
Total (15)	Total (15)

### FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
3143 Technical Presentations (3) 4653 (3)Writing for Multimedia (3) Computer Science (COMSC) Elective** (3) Free Electives (6)	4123 Professional Development (3) 4953 CS/IS Capstone (3) Free Electives (7)
Total (15)	Total (13)

\* First time entering SWOSU students need to take 1051 SWOSUConnect.

\*\*1000-2000 level Computer Science (COMSC) course (0-3 hours); 3000-4000 level Computer Science (COMSC) course (6-9 hours).

## ASSOCIATE IN SCIENCE DEGREE COMPUTER SCIENCE (COMSA.AS)

### GENERAL EDUCATION (Min. 40 hours)

**Courses that are required.** *Courses that are recommended.*

**Communication** ..... 9

- ENGL 1113 English Composition I**  
**ENGL 1213 English Composition II**  
**COMM 1313 Introduction to Public Speaking** OR  
**TECH 3143 Technical Presentations** (if permitted by degree program)

**Quantitative Reasoning** ..... 3

*Select one course.*

- MATH 1143 Mathematical Concepts**  
**MATH 1153 Mathematical Applications**  
**MATH 1193 Elementary Statistics**  
**MATH 1313 Functions and Modeling**  
**MATH 1513 College Algebra**  
 or a higher numbered math course

**U. S. History** ..... 3

*Select one course.*

- HIST 1043 U.S. History to 1877**  
**HIST 1053 U.S. History since 1877**

**American Government** ..... 3

- POLSC 1103 American Government & Politics**

**Science** ..... 7-8

*Select one course from Life Science and one course from Physical Science. One Science course must be a lab science.*

**Life Science** ..... 3-4

- BIOL 1004 Biological Concepts w/Lab**  
**BIOL 1013 Current Issues in Biology**  
**BIOL 1054 Principles of Biology I w/Lab**

**Physical Science** ..... 3-4

- ASTRO 1904 Astronomy**  
**CHEM 1004 General Chemistry w/Lab**  
**GEOL 1934 Physical Geology w/Lab**  
**SCI 1501 Concepts of Physical Science Lab**  
**SCI 1513 Conc of Phy Science** (can be taken w/wo lab)  
**PHY 1044 Basic Physics I w/Lab**  
**PHY 1063 General Physics** (or a higher numbered chemistry or physics course)

**Humanities and Social Science** ..... 12

*Select one course from each sub-category and one additional course from any subcategory below.*

**Humanities** ..... 3

- HUM 1103 Introduction to Humanities**  
**GEOG 1103 World Cultural Geography**  
**HIST 1033 World History**

**Fine Arts** ..... 3

- ART 1223 Art Survey**  
**COMM 1263 Introduction to Theatre**  
**LIT 2333 Introduction to Film**  
**LIT 2413 Introduction to Literature**  
**MUSIC 1123 History of Rock-n-Roll**  
**MUSIC 1013 Introduction to Music I**  
**MUSIC 1103 Music and Culture** (Music majors only)  
**PHILO 1453 Introduction to Philosophy**

**Social and Human Sciences** ..... 3

- ASL 2163 American Sign Language I**  
**ECONO 2263 Intro to Macroeconomics**  
**ECONO 2363 Intro to Microeconomics**  
**ENTRP 1123 Intro to Business**  
**FINAN 2113 Personal Financial Planning**  
**ITAL 1004 Elementary Italian I**  
**KINES 1133 Wellness Conc & Exercise Applications**  
**LATIN 1054 Elementary Latin I** (or higher number)  
**PSYCH 1003 General Psychology**  
**SOCIO 1003 Introduction to Sociology**  
**SPAN 1054 Elementary Spanish I** (or higher number)  
**TECH 1223 Technology and Society**

**Computer Proficiency** ..... 3  
**COMSC 1023 Computers and Info Access**

**Degree Program Core Courses** ..... 18

- COMSC 1033 Computer Science I†**  
**COMSC 1053 Computer Science II†**  
**COMSC 1103 Intro to Information Security & Ethics**  
**COMSC 1433 Visual Basic Programming**  
**COMSC 2043 Discrete Structures**  
**COMSC 2473 Programming in C++**

**Guided Elective** (choose one) ..... 3

- ACCTG 2213 Principles of Financial Accounting**  
**ACCTG 2313 Principles of Managerial Accounting\***  
**COMSC 2603 Network Security\***  
**ECONO 2463 Business Statistics**  
**ENTRP 1123 Introduction to Business**  
**FINAN 2113 Personal Financial Planning**  
**MATH 1613 College Trigonometry\***  
**TECH 1223 Technology & Society**  
 Advisor approved 1000/2000-level electives

\*Prerequisite coursework is required prior to enrollment into this course.

†Courses which are required for the bachelor's degree in computer science.

**TOTAL HOURS** ..... 61