Computer Science & Computer Security Programs

Overview of the Programs:

Computer science is the study of the theoretical foundations of computing and their applications in computer systems. It involves the study and implementation of the algorithmic processes that describe and transform information. Computer science is intended for students with career objectives in a wide range of computing and computer-related professions, e.g., computer programmers, system analysts, software engineers, database designers, security analysts, etc. Students interested in computer science can choose one of the two degree programs: B.S. in Computer Science or B.S. in Computer Security. In addition to receiving the necessary skills in computer science, the students also receive a well-balanced mathematics and general studies curriculum.

Employment Opportunities:

Computer science is a broad discipline that encompasses many areas of specialization, with an ever-growing array of opportunities. Each of the computer science degree programs at FSU has been designed to provide students with an understanding of the field that is broad enough for them to find employment in a wide spectrum of private companies or government agencies and make them competitive for graduate school and advanced study. According to Bureau of Labor Statistics, it is expected that the employment opportunities in the computing field will continue to increase in the next ten years.

CONTACT INFORMATION

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FOR MORE INFORMATION VISIT

www.fairmontstate.edu/collegeofscitech
# Bachelor of Science in Computer Science: Model Schedule

## Freshman First Semester
- **Comp 1100** Introduction to Computing ........................................... 3
- **Comp 1102** Principles of Programming I ........................................... 3
- **Engl 1104** Written English I ............................................................... 3
- **PhEd 1100** Fitness and Wellness or Choice ........................................... 2
- **General Studies – Natural Science ......................................................... 4

## Freshman Second Semester
- **Comp 1108** Principles of Programming II ......................................... 3
- **Math 1170** Introduction to Mathematical Analysis ................................ 4
- **Engl 1108** Written English II ............................................................... 3
- **Comp 2200** Introduction to Human Communication ............................. 3
- **General Studies** ...................................................................................... 3

## Sophomore First Semester
- **Comp 2200** Object-Oriented Programming ......................................... 3
- **Comp 2270** Data Structures ................................................................. 3
- **Math 1190** Calculus I ............................................................................... 4
- **Math 2216** Introduction to Discrete Mathematics ................................. 3
- **General Studies** ...................................................................................... 3

## Sophomore Second Semester
- **Comp 2201** Machine Organization ..................................................... 3
- **Comp 2230** Network Programming ..................................................... 3
- **Math 3315** Calculus II .......................................................................... 4
- **General Studies** ...................................................................................... 3

## Junior First Semester
- **Comp 3330** Analysis of Algorithms .................................................... 3
- **Comp 3340** Operating Systems ............................................................ 3
- **Math 3362** Linear Algebra * ................................................................. 3

* OR *
- **General Studies** ...................................................................................... 3
- **Phys 1105** Principles of Physics I ......................................................... 5

## Junior Second Semester
- **Comp 3395** Ethical Issues in Computing ............................................ 3
- **Math 2200** Mathematical Logic * ......................................................... 3

* OR *
- **General Studies** ...................................................................................... 3
- **Phys 1106** Principles of Physics II ....................................................... 5
- **General Studies** ...................................................................................... 3

## Senior First Semester
- **Comp 4400** Automata and Language Design ....................................... 3
- **Comp 4410** Database Management .................................................... 3
- **General Studies** ...................................................................................... 6

## Senior Second Semester
- **Comp 3300** Computer Graphics .......................................................... 3

* OR *
- **Comp 3310** Artificial Intelligence ....................................................... 3
- **Comp 4440** Software Engineering ....................................................... 4

## Free Electives .......................................................................................... 15

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* The student needs to take Math 2200 or Math 3362, but is not required to take both.

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