

# Computer Science & Computer Security Program

## OVERVIEW OF THE PROGRAMS

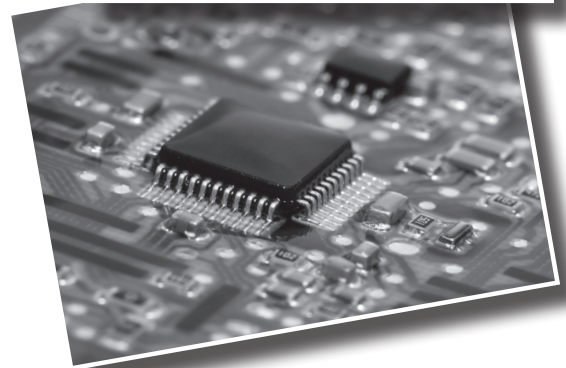
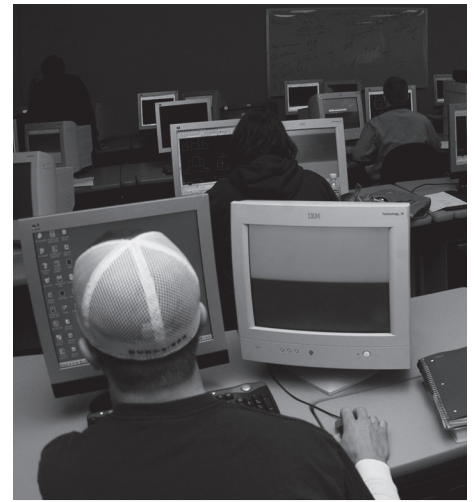
Computer Science is the study and implementation of algorithmic processes that describe and transform information. The Computer Science Program at FSU offers two majors: one in Computer Science and one in Computer Security. Because of the diversity of application areas, and the goal of computing benefiting humankind, computer scientists should be broadly educated and will receive a well-balanced curriculum in mathematics and the humanities.

## EMPLOYMENT OPPORTUNITIES

Computer Science is a broad discipline that encompasses many areas of specialization, with an ever-growing array of opportunities. Graduates in this area can find employment in a wide spectrum of commercial companies or government agencies, as well as be competitive for graduate school and advanced study. Personal niches can be found in software or system development, system administration, computer security, or any one of a number of new and developing computing technologies.

## CONTACT INFORMATION

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*fact fact*

**The annual median wage of a computer security administrator or a computer systems administrator is \$64,690.00. Both of these career fields will experience a high rate of employment until 2016.**

FOR MORE INFORMATION VISIT

[www.fairmontstate.edu/academics/collegeofscitech/default.asp](http://www.fairmontstate.edu/academics/collegeofscitech/default.asp)

# MODEL SCHEDULE

## Computer Science (B.S.)

### FRESHMAN FIRST SEMESTER

COMP 1100	INTRODUCTION TO COMPUTING.....	3
COMP 1102	PRINCIPLES OF PROGRAMMING I.....	3
MATH 1190	CALCULUS I.....	4
ENGL 1104	WRITTEN ENGLISH I.....	3
GENERAL STUDIES	CIVILIZATION.....	3
		16

### FRESHMAN SECOND SEMESTER

COMP 1108	PRINCIPLES OF PROGRAMMING II.....	3
MATH 3315	CALCULUS II.....	4
ENGL 1108	WRITTEN ENGLISH II.....	3
GENERAL STUDIES	HUMAN INTERACTION.....	3
MINOR/ELECTIVE	.....	3
		16

### SOPHOMORE FIRST SEMESTER

COMP 2200	OBJECT-ORIENTED PROGRAMMING.....	3
COMP 2270	DATA STRUCTURES.....	3
MATH 2216	INTRODUCTION TO DISCRETE MATHEMATICS.....	3
COMM 2200	INTRODUCTION TO HUMAN COMMUNICATION.....	3
CHEM 1101	GENERAL CHEMISTRY I.....	4
-OR-		
BIOL 1105	BIOLOGICAL PRINCIPLES I.....	4
-OR-		
SCIE XXXX	ANY SCIE COURSE.....	
		16

### SOPHOMORE SECOND SEMESTER

COMP 2201	MACHINE ORGANIZATION.....	3
COMP 2230	NETWORK PROGRAMMING.....	3
MATH 2200	MATHEMATICAL LOGIC.....	3
GENERAL STUDIES	CIVILIZATION.....	3
GENERAL STUDIES	ARTISTIC.....	3
		15

### JUNIOR FIRST SEMESTER

COMP 3330	ANALYSIS OF ALGORITHMS.....	3
COMP 3340	OPERATING SYSTEMS.....	3
PHYS 1105	PRINCIPLES OF PHYSICS I.....	5
GENERAL STUDIES	ARTISTIC.....	3
MINOR/ELECTIVE	.....	3
		17

### JUNIOR SECOND SEMESTER

COMP 3300	COMPUTER GRAPHICS.....	3
-OR-		
COMP 3310	ARTIFICIAL INTELLIGENCE.....	3
COMP 3395	ETHICAL ISSUES IN COMPUTING.....	3
PHYS 1106	PRINCIPLES OF PHYSICS II.....	5
GENERAL STUDIES	HUMAN INTERACTION.....	3
MINOR/ELECTIVE	.....	3
		17

### SENIOR FIRST SEMESTER

COMP 4400	AUTOMATA AND LANGUAGE DESIGN.....	3
COMP 4410	DATABASE MANAGEMENT.....	3
GENERAL STUDIES	HUMAN INTERACTION.....	3
MINOR/ELECTIVE	.....	6
		15

### SENIOR SECOND SEMESTER

COMP 4440	SOFTWARE ENGINEERING.....	4
MATH 3335	PROBABILITY AND STATISTICS.....	3
MINOR/ELECTIVE	.....	9
		16

# MODEL SCHEDULE

## Computer Security (B.S.)

### FRESHMAN FIRST SEMESTER

COMP 1100	INTRODUCTION TO COMPUTING.....	3
COMP 1102	PRINCIPLES OF PROGRAMMING I.....	3
MATH 1170	INTRODUCTION TO MATHEMATICAL ANALYSIS.....	4
ENGL 1104	WRITTEN ENGLISH I.....	3
GENERAL STUDIES	CIVILIZATION.....	3
		16

### FRESHMAN SECOND SEMESTER

COMP 1108	PRINCIPLES OF PROGRAMMING.....	3
MATH 1190	CALCULUS I.....	4
ENGL 1108	WRITTEN ENGLISH II.....	3
MATH 2200	MATHEMATICAL LOGIC.....	3
GENERAL STUDIES	CIVILIZATION.....	3
		16

### SOPHOMORE FIRST SEMESTER

COMP 2200	OBJECT-ORIENTED PROGRAMMING.....	3
COMP 2270	DATA STRUCTURES.....	3
INFO 2250	NETWORKING FUNDAMENTALS.....	3
MATH 2216	INTRODUCTION TO DISCRETE MATHEMATICS.....	3
GENERAL STUDIES	SCIENCE.....	4
		16

### SOPHOMORE SECOND SEMESTER

COMP 2201	MACHINE ORGANIZATION.....	3
COMP 2230	NETWORK PROGRAMMING.....	3
COMM 2200	INTRODUCTION TO HUMAN COMMUNICATION.....	3
GENERAL STUDIES	SCIENCE.....	4
GENERAL STUDIES	CIVILIZATION.....	3
		16

### JUNIOR FIRST SEMESTER

COMP 2220	FUNDAMENTALS OF COMPUTER SECURITY.....	3
COMP 3340	OPERATING SYSTEMS.....	3
GENERAL STUDIES	HUMAN INTERACTION.....	3
MINOR/ELECTIVE	.....	6
		15

### JUNIOR SECOND SEMESTER

COMP 3390	NETWORK SECURITY TECHNOLOGY.....	4
COMP 3395	ETHICAL ISSUES IN COMPUTING.....	3
GENERAL STUDIES	HUMAN INTERACTION.....	3
MINOR/ELECTIVE	.....	6
		16

### SENIOR FIRST SEMESTER

COMP 3380	CRYPTOGRAPHY IN COMPUTER SECURITY.....	4
COMP 4410	DATABASE MANAGEMENT.....	3
GENERAL STUDIES	ARTISTIC.....	3
MINOR/ELECTIVE	.....	6
		16

### SENIOR SECOND SEMESTER

COMP 4415	VULNERABILITY ASSESSMENT.....	4
COMP 4495	COMPUTER SECURITY INTERNSHIP.....	3
GENERAL STUDIES	ARTISTIC.....	3
MINOR/ELECTIVE	.....	7
		17