

Degree: Bachelor of Science

**College:** Science, Technology, and Business

Major: Applied Computing

Major Code: APCO Minor: N/A
Concentration: Game Programming (GAPR) Minor Code: N/A

**Credits Required: 120** 

# General Education Program Requirements

Foundations: (12 Credits)	Required Major Courses: (33 Credits)
Oral Communication (3 Credits)	☐ CMAC 1240 Computer Programming I
☐ COMJ 1010 Public Speaking	☐ CMAC 2040 Object-Oriented Programming
Quantitative Reasoning (3 Credits)	☐ CMAC 3000 Principles of Responsible Computing
☐ MATH 1510 Discrete Structures	
Technological Literacy (3 Credits)	_
☐ CMAC 1200 Problem Solving and Programming	☐ CMAC 3100 Computer Architecture and Assembly Language
Written Communication (3 Credits)	☐ CMAC 3140 Analysis of Algorithms
☐ ENGL 1200 College Composition	☐ CMAC 3200 Database Application Programming
	☐ CMAC 3500 Web Programming I
<u>Discoveries:</u> (Credits 27)	☐ CMAC 4900 Senior Project I
Art/Humanities (9 Credits)	☐ CMAC 4920 Senior Project II
	☐ ENGL 3230 Technical Writing
	☐ ~Or~ CMAC 3010 Structured System Documentation
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Natural Sciences & Technology (9 Credits)	Required Concentration Courses: (21 Credits)
☐ MATH 2410 Analytical Geometry and Calculus	☐ CMAC 3700 2D Game Programming
☐ STAT 2020 Elements of Statistics	☐ CMAC 3720 3D Game Programming
	☐ CMAC 3740 Mobile App Development
	☐ CMAC 3780 Computer Graphics
Social Sciences (9 Credits)	☐ CMAC 4200 Artificial Intelligence
	☐ Select two (2) courses from the following:
	ART 2001, ART 2101, ART 3001, ART 3101, ART 3601,
	ART 3915, ART 3916, ART 4008, DGMT 1800, ENGL
Wellness & Personal Health: (3 Credits)	2205, ENGL 2270, ENGL 2400, ENGL 3400, ENGL
weilless & reisolial Health. (5 Cleuits)	3410, ENGL 3420, ENGL 3430, ENGL 3440, ENGL
☐ CMAC 2000 Introduction to Cybersecurity	3450, ENGL 4000, ENGL 4200, ENGL 4400.
Competencies:	Major Electives: (6 Credits) Select two (2) from the following:
Applied Methodologies	CMAC 2100,CMAC 2600,CMAC 3180, CMAC
☐ CMAC 4920 Senior Project II	3320,CMAC 3380,CMAC 3580,CMAC 3640, CMAC
Ethical Reasoning	3830,CMAC 3990,CMAC 4000, CMAC 4120,CMAC
☐ CMAC 3000 Principles of Responsible Computing	4140,CMAC 4180,CMAC 4250,CMAC 4500,CMAC
Information Literacy	4640,CMAC 4680,CMAC 4950.
☐ CMAC 4900 Senior Project I	
Intercultural Fluency	Free Electives: (18 Credits)
☐ Any Course	Tree Electives. (10 dieuris)
Keystone Experience	
☐ CMAC 4920 Senior Project II	
Quantitative Applications	
☐ Any Course	
Writing Intensive	
<ul> <li>☐ CMAC 4900 Senior Project I</li> <li>☐ ~And~ ENGL 3230 Technical Writing</li> </ul>	
~ <b>Or</b> ~ CMAC 3010 Structured System Documentation	☐ Updated: 7/16/202

# **Suggested Four Year Course Sequence**

# Year 1

### **Fall Semester**

CMAC 1200 Problem Solving & Programming Constructs ENGL 1200 College Composition COMJ 1010 Public Speaking MATH 1510 Discrete Structures General Education Course

### **Spring Semester**

CMAC 1240 Computer Programming I CMAC 2000 Introduction to Cybersecurity STAT 2020 Elements of Statistics PHIL 3000 Formal Logic Art/Writing Required Course

# Year 3

#### Fall Semester

CMAC 3200 Database Programming
CMAC 3700 2D Game Programming
~Or~ CMAC 3720 3D Game Programming
CMAC Elective
ENGL 3230 Technical Writing
~Or~ CMAC 3010 Structured System Documentation
Free Elective

## **Spring Semester**

## Year 2

#### **Fall Semester**

CMAC 2040 Object-Oriented Programming Intercultural and Arts & Humanities /Social Sciences General Education Course General Education Course Math leading towards MATH 2410

### **Spring Semester**

CMAC 3100 Assembly Program/Comp. Organization CMAC 3040 Data Structures CMAC 3500 Web Programming 1 Art/Writing Required Course Math leading towards MATH 2410

## Year 4

# Fall Semester

## **Spring Semester**

CMAC 4900 Senior Project 1 CMAC 4920 Senior Project II CMAC 3700 2D Game Programming ~Or~ CMAC 3720 3D Game Programming General Education Course Free Elective



Updated: 7/16/2024