Computer Programming AAS

Associate of Applied Science Degree

Program Director: Cheryl Simpson

Program Faculty: Steven Robinett

This degree prepares students for employment as a computer programmer; developing web, desktop and enterprise applications.

Students learn to write code in multiple languages, including C#, Java, Python, understanding the foundations of both basic and intermediate data structures. Preparation for "Full Stack" development includes knowledge in HTML/CSS, Client-Side, Server-Side and Databases. Project based assignments focus on development methodologies including iterative and waterfall design.

The program will conclude with an internship or capstone, in which students can get real-world experience, adding to a resume and preparing for a career.

Outcomes

Graduates are prepared to:

- Understand the fundamentals of computer programming and data structures.
- Understand the languages for web and enterprise applications such as C#, Java, Python, PHP, and JavaScript.
- Understand data modeling, database design, and structured query language (SQL).
- Have proficiency in web server administration and application development environments.
- Understand the software life-cycle, classical and current methodologies and best practices.

Estimated Cost

Estimated Resident Program Cost*

Tuition and Fees	$7,064
Lab/Course Fees	$70
Books/Supplies	$1,166
Total	$8,330

*

Fall 2023 MUS Student Health Insurance Premiums may be changing. Please check the Health Insurance website **(**http://students.gfcmsu.edu/insurance.html**) and/or Student Central for confirmed premium rates. Students will be charged an additional fee of $21 per credit for online/hybrid courses for only Summer 2023 classes.**

Program Requirements

Many students need preliminary math and writing courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and writing placement before planning out their full program schedules.

Course	Title	Credits	Grade/Sem
First Year			
Fall			
CSCI 100	Introduction to Programming *,+	3	_____
CSCI 105	Computer Fluency +	3	_____
COMX 115	Introduction to Interpersonal Communication +	3	_____
M 121	College Algebra **,+	3	_____
Select one of the following:			
WRIT 101	College Writing I **,+	3	_____
WRIT 121	Intro to Technical Writing **,+	3	_____
	Credits	**15**	
Spring			
CAPP 156	MS Excel *,+	3	_____
CSCI 240	Databases and SQL *,+	3	_____
ITS 210	Network Operating System - Desktop *,+	3	_____
Technical Elective		3	
Select one of the following:			
CSCI 111	Programming with Java I *,**,+	3	_____
CSCI 114	Programming with C# *,+	3	_____
	Credits	**15**	
Second Year			
Fall			
CSCI 132	Basic Data Structures and Algorithms *,+	4	_____
CSCI 181	Web Design and Programming *,+	4	_____
CSCI 211	Client Side Programming *,+	3	_____
STAT 216	Introduction to Statistics **,+	4	_____
	Credits	**15**	
Spring			
CSCI 213	Web Programming Techniques *,+	3	_____
CSCI 223	Software Development *,+	3	_____
CSCI 232	Intermediate Data Structures and Algorithms *,+	3	_____
ITS 224	Introduction To Linux *,+	4	_____
Select one of the following:			
CSCI 298	Internship *,+	3	_____
CSCI 299	Programming Capstone *,+	3	_____
	Credits	**16**	
	Total Credits	**61**	

Suggested Electives

These courses are highly recommended in addition to standard computer programming curriculum.

Course	Title	Credits	Grade/Sem
CSCI 291	Special Topics *	1-6	_____
BGEN 105	Introduction to Business	3	_____
Any 100+ level course in the ITS/CSCI/NTS prefix not included in this program.			

+

A grade of C- or above is required for graduation.

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Indicates prerequisites needed.

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Placement in course(s) is determined by placement assessment.