## **INFORMATION TECHNOLOGY A.A.S. - PROGRAMMING AND APP DEVELOPMENT**

#### Thomas Gallagher, Program Director

Programming and App Development concentration emphasizes application development and business processes. Students learn to write software using an object-oriented programming paradigm for deployment to the web and the desktop. Relational database design, structured query language (SQL), and the ability to create applications which push and pull information from databases are highlighted. Graduates seek careers as computer support specialists, help desk technicians, web developers, software developers, and database administrators.

## Associate of Applied Science -Information Technology; Programming and App Development Concentration

### **Missoula College**

Degree Specific Credits: 60-61

Required Cumulative GPA: 2.0

## Catalog Year: 2018-2019 Summary

Code	Title	Hours
Information Tech	28	
Mathematics		3-4
Programming and App Development Concentration Requirements		23
Programming and App Development Directed Electives		6
Total Hours		60-61

## Information Technology Core Courses

**Note:** Completion of IT core courses fulfills requirements for C.A.S. in Computer Support.

Code	Title	Hours	
Complete all of the following courses:			
BGEN 105S	Introduction to Business	3	
CSCI 105	Computer Fluency	3	
CSCI 135	Fund of Computer Science I	3	
CSCI 172	Intro to Computer Modeling	3	
ITS 150	CCNA 1: Exploration	3	
ITS 165	OS Commands and Scripts	3	
ITS 210	Network OS - Desktop	3	
ITS 280	Computer Repair & Maint.	3	
ITS 289	Professional Certification	1	
WRIT 101	College Writing I	3	
Total Hours		28	

Minimum Required Grade: C-

Mathema	tics	
Code	Title	Hours
Complete any Mathematics course with course number 115 or higher.		
Total Hours		3-4

Minimum Required Grade: C-

# Programming and App Development Concentration Requirements

Code	Title	Hours		
Complete all of the following courses:				
COMX 111A	Introduction to Public Speaking	3		
CSCI 113	Programming with C++ I	3		
CSCI 136	Fund of Computer Science II	3		
CSCI 215E	Social & Ethical Issues in CS	3		
CSCI 221	System Analysis and Design	3		
CSCI 240	Databases and SQL	3		
ITS 298	Internship/Cooperative Educati	2		
MART 232	Interactive Web II	3		
Total Hours		23		

Minimum Required Grade: C-

### **Programming and App Development Directed Electives**

**Note:** Directed electives must be approved by student's advisor. Examples of directed electives may include courses from the ACTG, BGEN, COMX, CSCI, DDSN, ITS, or WRIT rubrics. A student may request substitution of other courses to fulfill the directed elective requirement provided a clear connection can be made between a course, a student's career objective, and the degree program. All substitution requests require departmental approval.

Code	Title	Hours
Complete two directed elective courses (minimum of 6 credits) selected with your advisor.		
Total Hours	3	6

Minimum Required Grade: C-