### CIS – APP DEVELOPMENT BY SWIFT CONCENTRATION

#### **AAS**

#### **Guided Pathway/Map**

Semester 1	ENG101	English Composition I	3
	MTH100	Intermediate College Algebra	3
	CIS146	Microcomputer Applications	3
	CIS150	Introduction to Computer Logic	3
	ORI 101 OR OR105	College Orientation	1-3
			Semester Total: 13-15
Semester 2	CIS157	Introduction to App Development with Swift	3
	CIS171	Linux I	3
	CIS202	Python Programming	3
	CIS268	Software Support	3
	Area III	Science/Math Elective	3-4
			Semester Total: 15-16
Semester 3	SPH106/107	Fundamentals of Oral Communication OR Fundamentals of Public Speaking	3
	Area IV Elective	History/Social/Behavioral Science Elective	3
	BUS241	Principles of Accounting I	3
	CIS161	Introduction to Networking Communications	3
	CIS245	Cyber Defense	3
			Semester Total: 15
Semester 4	CIS113	Spreadsheet Software Applications	3
	CIS157	Introduction to App Development with Swift	3
	CIS207	Web Development	3
	CIS 134	IT Fundamentals	3
			Semester Total: 12

## CIS – APP DEVELOPMENT BY SWIFT CONCENTRATION

## AAS

Semester 5	CIS117	Database Management Software Applications	3
	CIS209	Advanced Web Development	3
	CIS227	App Development with Swift II	3
	CIS269	Hardware Support	3
			Semester Total: 12
			Program Total: 67-70

### CIS - CYBER DEFENSE CONCENTRATION

#### AAS

#### **Guided Pathway/Map**

Semester 1		
ENG101	English Composition I	3
MTH100	Intermediate College Algebra	3
CIS146	Microcomputer Applications	3
CIS150	Introduction To Computer Logic	3
ORI 101/OR105	College Orientation	1-3
Semester 2		Semester 1 Total: 13-15
CIS134	IT Fundamentals	3
CIS171	Linux I	3
Area III	Math/Science Elective	3-4
010000		
CIS202	Python Programming	3
CIS268	Software Support	3
Semester 3		Semester 2 Total: 15-16
SPH106 OR SPH107	Fundamentals of Oral Communication OR Fundamentals of Public Speaking	3
Area IV Elective	History/Social/Behavioral Science Elective	3
BUS241	Principles of Accounting I	3
CIS161	Introduction to Networking Communications	3
CIS245	Cyber Defense	3
Semester 4		Semester 3 Total: 15
CIS113	Spreadsheet Software Applications	3
CIS207	Web Development	3
CIS280	Network Security	3
CIS282	Computer Forensics	3

# CIS – CYBER DEFENSE CONCENTRATION AAS

Semester 5		Semester 4 Total: 15
CIS117	Database Management Software Applications	3
CIS209	Advanced Web Development	3
CIS246	Ethical Hacking	3
CIS269	Hardware Support	3
		Semester 5 Total: 12
		Program Total: 70-73

### CIS - MICROCOMPUTER SPECIALIST CONCENTRATION

#### **AAS**

#### **Guided Pathway/Map**

ENG101	English Composition I	3
MTH100	Intermediate College Algebra	3
CIS146	Microcomputer Applications	3
CIS150	Introduction to Computer Logic	3
ORI 101/OR105	College Orientation	1-3
		Semester 1 Total: 13-15
CIS134	IT Fundamentals	3
CIS171	Linux I	3
Area III	Science/Math Elective	3-4
CIS202	Python Programming	3
CIS268	Software Support	3
		Semester 2 Total: 15-16
SPH106/107	Fundamentals of Oral Communication OR	3
	Fundamentals of Public Speaking	
Area IV Elective	History/Social/Behavioral Science Elective	3
BUS241	Principles of Accounting I	3
CIS161	Introduction to Networking Communications	3
CIS245	Cyber Defense	3
		Semester 3 Total: 15
CIS113	Spreadsheet Software Applications	3
CIS207	Web Development	3
OAD103	Intermediate Keyboarding	3
	Computer Science Elective	3
		Semester 4 Total: 12

# CIS – MICROCOMPUTER SPECIALIST CONCENTRATION AAS

CIS117	Database Management Software Applications	3
CIS209	Advanced Web Develpoment	3
CIS269	Hardware Support	3
OAD125	Word Processing	3
		Semester 5 Total: 12
		Program Total: 67-70

### CIS - SOFTWARE DEVELOPMENT CONCENTRATION

#### **AAS**

#### **Guided Pathway/Map**

ENG101	English Composition I	3
MTH100	Intermediate College Algebra	3
CIS146	Microcomputer Applications	3
CIS150	Introduction To Computer Logic	3
ORI 101/OR105	College Orientation	1-3
		Semester 1 Total: 13-15
CIS134	IT Fundamentals	3
CIS171	Linux I	3
AREA III	Science/Math Elective	3-4
CIS202	Python Programming	3
CIS268	Software Support	3
		Semester 2 Total: 15-16
SPH106/107	Fundamentals of Oral Communication OR	3
	Fundamentals of Public Speaking	
Area IV Elective	History/Social/Behavioral Science Elective	3
BUS241	Principles of Accounting I	3
CIS161	Introduction to Networking Communications	3
CIS245	Cyber Defense	3
		Semester 3 Total: 15
CIS113	Spreadsheet Software Applications	3
CIS207	Web Development	3
CIS251	C++ Programming	3
CIS212	Visual Basic Programming	3
		Semester 4 Total: 12

## CIS – SOFTWARE DEVELOPMENT CONCENTRATION AAS

CIS117	Database Management Software Applications	3
CIS209	Advanced Web Development	3
CIS269	Hardware Support	3
CIS285	Object-Oriented Programming	3
		Semester 5 Total: 12
		Program Total: 67-70