



2020 - 2021
Computer Science –
Concentration in Computer Programming
Bachelor of Science Degree
Academic Plan

Fall Year 1		Courses	Prerequisite(s)	Credit Hours	
CIS 1110A	Computer Operating Systems and Maintenance			3	15
COM 1010	Composition and Critical Thinking I			3	
CS 1110	Introduction to Programming	Co-requisite(s): MTH 1010		3	
MTH 1110	College Algebra I			3	
MTH 1010	Quantitative Literacy			3	
Spring Year 1		Courses	Prerequisite(s)	Credit Hours	
COM 1020	Composition and Critical Thinking II	COM 1010, MTH 1010		3	14
CIS 2210	Database Management and Design	CS 1110 or CIS 1110A		3	
CS 1650	Python Programming	EGR 2710 or CS 1110		3	
MTH 1310	Pre-Calculus	MTH 1110		5	
Fall Year 2		Courses	Prerequisite(s)	Credit Hours	
CIS 2510	Systems Development Methods			3	16
CS 2410	Java Programming	CS 1110		3	
MTH 1510	Calculus I	MTH 1210 or MTH 1310		4	
NET 1010	Networking Essentials	Co-requisite: CIS 1110A		3	
PSY 2050	Self and Society	COM 1010, MTH 1010; Co-requisite: COM 1020		3	
Spring Year 2		Courses	Prerequisite(s)	Credit Hours	
CS 2010	Net-Centric Computing	CS 1110		3	15
CS 2150	C++ Programming	EGR 2710 or CS 1110, MTH 1110		3	
CS 2420	Advanced Java Programming	CS 2410		3	
ITS 2310	Linux I			3	
MTH 1410	Introduction to Discrete Mathematics	MTH 1120 or MTH 1310		3	

Fall Year 3		Courses	Prerequisite(s)	Credit Hours
CIS 3010	Computer Architecture	CS 2010, MTH 1410	3	15
CS 3110	C# Programming	CS 2150	3	
CS 3210	Data Structures and Algorithms I	CS 2150	3	
ITS 3210	Legal and Ethical Issues in Information Technology	CIS 1110A, NET 1010	3	
SOC 3050	Personal, Civic, and Global Perspectives	COM 1010, MTH 1010, PSY 2050	3	
Spring Year 3		Courses	Prerequisite(s)	Credit Hours
CIS 4010	Advanced Computer Architecture	CIS 3010	3	15
CS 3220	Data Structures and Algorithms II	CS 3210	3	
CS 3910	Emerging Programming Languages	CS 3210	3	
CS 3950	Big Data Analytics	CS 3210	3	
HUM 3910	Integrated Seminar	COM 1010, MTH 1010, PSY 2050, SOC 3050	3	
Fall Year 4		Courses	Prerequisite(s)	Credit Hours
CS 3310	Application Security Practices	CS 3110	3	15
CS 3410	Programming for Mobile Devices	CS 3110 or CS 2420	3	
CS 4110	Artificial Intelligence	CS 3110 or CS 3850	3	
CS 4510	Unit Testing And Interfaces	CIS 2510, CS 3220	3	
CS 4910	Senior Project I	CS 3220, HUM 3910; Co-requisite(s): CS 4510	3	
Spring Year 4		Courses	Prerequisite(s)	Credit Hours
CS 4410	IoT Devices	CIS 4010, CS 3910	3	15
CS 4920	Senior Project II	CS 4910	3	
ELECTIVE	General Education Elective		3	
ELECTIVE	Scientific Inquiry Elective		3	
WKTRIT4010	Work Experience	Senior status	3	
Program Total				120