



2022 - 2023
Computer Science –
Concentration in Data Analytics
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 1110A	Programming in Python	Co-requisite(s): MTH 1010		3	
MTH 1010	Quantitative Literacy			3	
MTH 1110	College Algebra I			3	
Spring Year 1		Courses	Prerequisite(s)	Credit Hours	
CIS 2210	Database Management and Design	CS 1110A or CIS 1110A		3	15
COM 1020	Composition and Critical Thinking II	COM 1010, MTH 1010		3	
ELECTIVE	General Education Elective	As needed per choice		3	
MTH 1120	College Algebra II	MTH 1110		3	
MTH 2750	Statistical Methods	MTH 1010 or MTH 1110		3	
Fall Year 2		Courses	Prerequisite(s)	Credit Hours	
CIS 2510	Systems Development Methods			3	15
CS 2410	Java Programming	CS 1110A		3	
ELECTIVE	General Education Elective			3	
NET 1010	Networking Essentials	Co-requisite(s): CIS 1110A		3	
PSY 2050	Self and Society	COM 1010, MTH 1010; Co-requisite(s): COM 1020		3	
Spring Year 2		Courses	Prerequisite(s)	Credit Hours	
CS 2010	Net-centric Computing	CS 1110A		3	15
CS 2150	C++ Programming	EGR 2710 or CS 1110A, MTH 1110		3	
ELECTIVE	Program Elective	As needed per choice		3	
ITS 3210	Legal and Ethical Issues in Information Technology	CIS 1110A or NET 1010		3	
MTH 2410	Discrete Mathematics	MTH 1120 or MTH 1310		3	

Fall Year 3		Courses	Prerequisite(s)	Credit Hours	
CIS 3010	Computer Architecture		CIS 1110A, CS 1110A, MTH 2410	3	15
CIS 4210	Database Administration I		CIS 2210	3	
CS 3210	Data Structures and Algorithms I		CS 2150	3	
ELECTIVE	Program Elective		As needed per choice	3	
SOC 3050	Personal, Civic, and Global Perspectives		COM 1010, MTH 1010, PSY 2050	3	
Spring Year 3		Courses	Prerequisite(s)	Credit Hours	
CIS 4220	Database Administration II		CIS 4210	3	15
CS 3220	Data Structures and Algorithms II		CS 3210	3	
ELECTIVE	Program Elective		As needed per choice	3	
ELECTIVE	Scientific Inquiry		As needed per choice	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 2150	3	15
CS 4210	Database Programming I		CIS 2210, CS 1110A	3	
CS 4510	Unit Testing and Interfaces		CIS 2510, CS 3220	3	
CS 4810	Trends in Computer Science		CS 1110A, NET 1010	3	
ELECTIVE	Program Elective		As needed per choice	3	
Spring Year 4		Courses	Prerequisite(s)	Credit Hours	
CS 4220	Database Programming II		CIS 4220, CS 4210	3	15
CS 4650	Advanced Database Topics		CIS 4220; CS 4210	3	
CS 4910A	Senior Project		CS 3220, CS 4510	3	
ELECTIVE	Program Elective		As needed per choice	3	
WRK 4850	CoIT Work Experience		Senior status	3	
Program Total				120	

Program Electives

Select any 5 courses, with any of the following prefixes, to fulfill 15 Program Electives hours: CIS, CS, CSC, GSD, ITS, MNP, NET, PPM, WEB. Prerequisites need to be fulfilled for any elective courses.