Bachelor of Science
Mathematics and CIS Major 2023-24 AY   Major Code MA01
CIP Code: 270101

		Cr Hrs
General Education CORE 42 Requirements 42*		**35**
Area 1A	Social & Behavioral Sciences	6
Area 1B	Civic Engagement	3
Area 2A	Written Communication	6
Area 2B	Oral Communication	3
Area 3A	Natural Science Non-Lab **	3
Area 3B	Natural science With Lab (PHYS 270)	
Area 4	Mathematics (MATH 150)	
Area 5A	Humanities	6
Area 5B	Fine Arts	3
Area 5C	Global Competencies	3
Area 5D	Health and Wellness	2
UE 100	**University Experience****	**1**
CIS Core Requirements		**30**
CIS 110	Programming I	3
CIS 202	Information Systems I	3
CIS 210	Programming II	3
CIS 308	Website Administration I	3
CIS 310	Database Management Systems I	3
CIS 315	Computer Networks	3
CIS 340	Website Administration II	3
CIS 350	Data Structures	3
CIS 410	Information Systems II	3
CIS 425	Database Management Systems II	3
Mathematics Requirements		**34**
MATH 150	Calculus with Analytic Geometry I*	5
MATH 250	Calculus with Analytic Geometry II	4
MATH 260	Calculus with Analytic Geometry III	4
MATH 300	Fundamentals of Mathematical Thought	3
MATH 340	Discrete Mathematics	3
MATH 350	Introduction to Numerical Analysis	3
MATH 351	Linear Algebra	3
MATH 361	Probability and Statistics I	3
MATH 371	Introduction to Operations Research	3
MATH 421	Introduction to Advanced Calculus	3
Math Supporting Requirements Choose one:		**4-5**
CHEM 140/141	General Chemistry w/lab (5)	
PHYS 160	Elementary College Physics (4)	
PHYS 270	General Physics I (4)	
CIS Supporting Requirements		**6**
CIS 240	Python Programming	3
CIS 390	Introduction to Big Data Analytics	3
Electives		**9-10**
Total Hours	Must include at 39 upper division (300-400) hrs	**120**

Same program as the Bachelor of Science in CISs; Computational Mathematics option. Students selecting this option will graduate with a double major in Computer Information Science and Mathematics.

* Gen. Ed. Core 42 requirements Area 4 met by required MATH, Area 3A and 3B met by CHEM 140 and PHYS

** Natural Science Non-Lab - not PHYS prefix with the exception of Astronomy