

Academic Program Sequence Map

Program Degree Type and Name: BS/MS 4+1 in Computer Science (with Software Development Specialization)

Catalog Year: 2026-2027

Program Level: Undergrad/Graduate

Academic Term Type: Semester

* Denote core course with an asterisk and (cc) next to the course number												
Year and Term: Year 1 Fall term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
Comp I: ENGL111	3	x										
Mercy Seminar I: FYS	3	x										
MATH116 College Algebra (Qunatitative Reasoning	3	x			C or Higher							
CISC120 Intro Computers & App Software	3		x		C or Higher							
Gen Ed ENGL 110/LANG115/116/elective	3	x										
Term Credit Total:	15	12	3									
Year and Term: Year 2 Fall term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
MATH244 Discrete Structures	3		x			MATH 201						
CISC231 Foundations of Computing II	3		x		C or Higher	CISC 131		GC				
Major Elective	3		x									
Gen Ed (LANG 116/Elective)	3	x										
Gen Ed (Scientific Reasoning)	3	x										
Term Credit Total:	15	6	9									
Year and Term: Year 3 Fall term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
Gen Ed (Ethical Reasoning)	3	x										
CISC339 Artificial Intelligence	3		x			CISC231 & MATH244						
CISC335 Computer Network II	3		x			CISC231						
Gen Ed (Self & Society)	3	x										
Major Elective	3		x									
Term credit total:	15	6	9									
Year and Term: Year 4 Fall term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
CISC371 Sftwr Engineering I:Principles	3		x		C or Higher	CISC311						
CISC411 Object/Structure/Algorithm II	3		x			CISC311						
MATH350 Probability:Theory/Application	3		x			MATH261						
CISC380 Co-op Computer Science I	3		x					WBE				
CISC505 Objected Oriented Programming	3			x				4+1				
Term Credit Total:	15		12	3								
Year and Term: Year 5 Fall Term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
CISC515 Software Design and Development	3		x									
CISC545 Distributed Application Development	3		x									
CISC555 Mobile Application Development	3		x									
Major Elective	3		x									
Term Credit Total:	12		12									
Year and Term: Year 1 Spring term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
Comp II: ENGL112	3	x				ENGL111						
MATH201 Precalculus	3		x		C or Higher	MATH116 or B in HS algebra						
CISC131 Foundations of Computing I	3		x		C or Higher	CISC120		GC				
Gen Ed (LANG 115/116/elective)	3	x										
Mercy Seminar II: Transformative Ideas	3	x										
Term Credit Total:	15	9	6									
Year and Term: Year 2 Spring term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
CISC311 Object/Structure/Algorithm I	3		x		C or Higher	CISC231 & MATH244						
CISC341 Computer Architecture	3		x			CISC231 & MATH244						
MATH260 Calculus I	4		x		C or Higher	MATH201						
Mercy Seminar III: Big Problems	3	x										
Gen Ed (Creative Expression)	3	x										
Term Credit Total:	16	6	10									
Year and Term: Year 3 Spring term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
CISC421 Operating Systems	3		x			CISC231 & MATH244						
MATH261 Calculus II	4		x			MATH260						
Gen Ed Humanities	3	x										
Open Elective	3			x								
Open Elective	1			x								
Term Credit Total:	14	3	7	4								
Year and Term: Year 4 Spring term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
CISC471 Sftwr Engrg II:Snr Cpstn Prj	3		x			CISC371		CA/ELC				
CISC381 Co-op Computer Science II	3		x			CISC380		WBE				
CISC510 Theoretical Concepts of CS	3			x				4+1				
CISC520 Database Management Systems	3			x				4+1				
Major Elective	3		x									
Term Credit Total:	15		9	6								
Year and Term: Year 5 Spring Term		Credits Per Classification										
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)		Milestone/Advice				
CISC575 Software Assurance	3		x									
CISC600 Thesis OR CISC601 Software Dev Project	3		x									
Term Credit Total:	6		6									

Program Totals	Credits: 138 (120 UG)	General Education: 42	Major & Major Elective:: 65 UG Credits (Students will need to complete 18 credits after conferral to earn the Master's Degree	Open Elective: 13 (9 cr for grad courses)
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Legend: CR: Credits GE: General Education Maj: Major / Major Elective OE: Open Elective SM: Success Marker Co/Prerequisite(s): List of co/ prerequites for noted course GC: Gateway Courses CA: Career Activity ELC: Experiential Learning Course WBE: Work-Based Experience