

**Computer Science**  
**Bachelor of Science (B.S.)**

Name: \_\_\_\_\_

V #: \_\_\_\_\_

Freshman Year									
Fall					Spring				
TX	Course No.	Course Title	Cr.	Availability	TX	Course No.	Course Title	Cr.	Availability
	CMSC 254	Introduction to Problem-Solving	4	Fa/Sp		CMSC 255	Introduction to Programming	4	Fa/Sp/Su
							CMSC 254 or CMSC 210		
	UNIV 111	Focused Inquiry I	3	Fa/Sp/Su		MATH 200	Calculus with Analytic Geometry I	4	Fa/Sp/Su
							ALEKS 76 or MATH 151		
	CMSC 235	Computing and Data Ethics	3	Fa/Sp/Su		ECON 205	Economics of Product Development and Markets	3	Fa/Sp/Su
	Gen Ed	Approved Humanities/Fine Arts Core	3	Fa/Sp/Su		UNIV 112	Focused Inquiry II	3	Fa/Sp/Su
							UNIV 111		
						Gen Ed	AOI for Creativity, Innovation, Aesthetics	3	Fa/Sp/Su
		<b>Total</b>	<b>13</b>				<b>Total</b>	<b>17</b>	

Sophomore Year									
Fall					Spring				
TX	Course No.	Course Title	Cr.	Availability	TX	Course No.	Course Title	Cr.	Availability
	CMSC 256	Data Structures and Object-Oriented Programming	4	Fa/Sp/Su		CMSC 304	Programming Languages	3	Fa/Sp
		MATH 151, CMSC 255 & CMSC 302 (co-req)					CMSC 256		
	CMSC 302	Introduction to Discrete Structures	3	Fa/Sp/Su		CMSC 311	Computer Organization	3	Fa/Sp
		CMSC 255					CMSC 302		
	UNIV 200	Inquiry and the Craft of Argument	3	Fa/Sp/Su		Gen Ed	AOI for Diversity in Human Experience	3	Fa/Sp/Su
		UNIV 112 or HONR 250							
	MATH 201	Calculus with Analytic Geometry II	4	Fa/Sp/Su		STAT 212	Concepts of Statistics	3	Fa/Sp/Su
		MATH 200					MTH 151		
						Humanities	Approved Humanities Elective	3	Fa/Sp/Su
		<b>Total</b>	<b>14</b>				<b>Total</b>	<b>15</b>	

Junior Year									
Fall					Spring				
TX	Course No.	Course Title	Cr.	Availability	TX	Course No.	Course Title	Cr.	Availability
	CMSC 303	Theory of Computation	3	Fa/Sp		CMSC 408	Databases	3	Fa/Sp
		CMSC 302					CMSC 303		
	CMSC 355	Software Engineering: Specification and Design	3	Fa/Sp		CMSC 401	Algorithm Analysis With Advanced Data Structures	3	Fa/Sp
		CMSC 256 or EGRE 246					CMSC 256 & CMSC 302		
	CMSC 257	Computer Systems	4	Fa/Sp		CMSC 440	Data Communication and Networking	3	Fa/Sp
		CMSC 256					CMSC 257		
	Science	Approved Science Course	4/5	Fa/Sp/Su		Gen Ed	Approved Social/Behavioral Science	3	Fa/Sp/Su
	ENGR 395	Professional Development	1	Fa/Sp		Math	300-400 Level Math	3/4	Fa/Sp/Su
							MTH 151 or MTH 201		
		<b>Total</b>	<b>15-16</b>				<b>Total</b>	<b>15-16</b>	

Senior Year									
Fall					Spring				
TX	Course No.	Course Title	Cr.	Availability	TX	Course No.	Course Title	Cr.	Availability
	CMSC 451	Senior Design I CMSC 355 & UNIV 200 or HONR 200	1	Fall		CMSC 452	Senior Design II CMSC 451 & CMSC 408	1	Spring
	CMSC 441	Senior Design Studio I CMSC 355 & UNIV 200 or HONR 200	2	Fall		CMSC 442	Senior Design Studio II CMSC 451 & CMSC 408	2	Spring
	CMSC UD	Upper Division CMSC	3	Fa/Sp		CMSC 312	Introduction to Operating Systems CMSC 311 or EGRE 364	3	Fa/Sp
	CMSC UD	Upper Division CMSC	3	Fa/Sp		CMSC UD	Upper Division CMSC	3	Fa/Sp
	Humanities	Approved Humanities Elective	3	Fa/Sp/Su		Open Elective	Open Elective	3	Fa/Sp/Su
	Open Elective	Open Elective	4	Fa/Sp/Su		Open Elective	Open Elective	3	Fa/Sp/Su
		<b>Total</b>	<b>16</b>				<b>Total</b>	<b>15</b>	

Technical Electives					
Course No.	Course Title	Cr.	Pre-Req	Concentrations	Availability
CMSC 391	Topics in Computer Science	3	Instructor Approval		Fall/Spring
CMSC 404	Compiler Construction	3	CMSC 401 & CMSC 304		
CMSC 410	Intro to Quantum Computing	3	CMSC 401 & MATH 310		
CMSC 411	Computer Graphics	3	CMSC 355 & MATH 310		
CMSC 412	Social Network Analysis & Cybersecurity Risks	3	CMSC 401		
CMSC 413	Intro to Cybersecurity	3	CMSC 257	Cybersecurity	Fall
CMSC 414	Computer & Network Security	3	CMSC 401 & CMSC 312 (co-req)	Cybersecurity	Spring
CMSC 415	Intro to Cryptography	3	CMSC 401	Cybersecurity	Fall
CMSC 420	Software Project Management	3	CMSC 355	Software Engineering	
CMSC 425	Intro to Software Analysis and Testing	3	CMSC 355	Software Engineering	Spring
CMSC 426	Software as a Service	3	CMSC 355	Software Engineering	Fall
CMSC 427	Design and Implementation of User Interfaces	3		Software Engineering	Spring
CMSC 428	Mobile Programming: iOS	3	CMSC 355		
CMSC 435	Intro to Data Science	3	CMSC 401	Data Science	Fall
CMSC 436	Artificial Intelligence	3	MATH 310	Data Science	Fall
CMSC 437	Intro to Natural Language Processing	3	CMSC 401	Data Science	Spring
CMSC 438	Machine Learning	3	CMSC 257 and MATH 310	Data Science	Spring
CMSC 445	Introduction to Game Development	3	CMSC 255		Fall
CMSC 491	Topics in Computer Science	3	Instructor Approval		Fall/Spring
CMSC 492	Independent Study	2-4	Instructor Approval		Fall/Spring

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