Computer Science
Bachelor of Arts (B.A.)

Name: _____

V #: _____

Freshman Year

TX	Course No.	Fall — Course Title	Cr.	Availability	TX	Course No.	Spring — 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 211	Mathematical Structures	3	Fa/Sp/Su
							MATH 151		
	CMSC 235	Computing and Data Ethics	3	Fa/Sp/Su		UNIV 112	Focused Inquiry II	3	Fa/Sp/Su
							UNIV 111		
	MATH 151	Precalculus Mathematics	4	Fa/Sp/Su		Gen Ed	AOI for Creativity, Innovation, Aesthetics	3	Fa/Sp/Su
		MATH 141 or MATH 139					UNIV 111		
						Gen Ed	AOI for Diversity in Human Experience	3	Fa/Sp/Su
		Total	14				Total	16	

Sophomore Year

TX	Course No.	Fall — Course Title	Cr.	Availability	TX	Course No.	Spring — Course Title	Cr.	Availability
	CMSC 256	Data Structures and Object-Oriented Programming	4	Fa/Sp/Su		CMSC 311	Computer Organization	3	Fa/Sp
		MATH 151, CMSC 255 & CMSC 302 (co-req)					CMSC 302		
	CMSC 302	Introduction to Discrete Structures	3	Fa/Sp/Su		STAT 212	Concepts of Statistics	3	Fa/Sp/Su
		CMSC 255					MTH 151		
	UNIV 200	Inquiry and the Craft of Argument	3	Fa/Sp/Su		Gen Ed	Approved Natural Sciences	3/5	Fa/Sp/Su
		UNIV 112 or HONR 250							
	Gen Ed	Approved Social/Behavioral Science	3	Fa/Sp/Su		Gen Ed	Approved Scientific and Logical Reasoning	3	Fa/Sp/Su
	Gen Ed	Approved Humanities/Fine Arts Core	3	Fa/Sp/Su		Minor	Minor Course	3	Fa/Sp
		Total	16				Total	15-17	

Junior Year

TX	Course No.	Fall — Course Title	Cr.	Availability	TX	Course No.	Spring — Course Title	Cr.	Availability
	CMSC 355	Software Engineering: Specification and Design	3	Fa/Sp		CMSC 401	Algorithim Analysis With Advanced Data Structures	3	Fa/Sp
		CMSC 256 or EGRE 246					CMSC 256 & CMSC 302		
	MATH 310	Linear Algebra	3	Fa/Sp/Su		IDST 301	Interdisciplinary Theory and Practice	3	Fa/Sp
		MATH 141 or MATH 139							
	CMSC	Restricted Elective	3	Fa/Sp		CMSC	Restricted Elective	3	Fa/Sp
	Minor	Minor Course	3	Fa/Sp		Minor	Minor Course	3	Fa/Sp
	Open Elective	Open Elective	3	Fa/Sp/Su		Open Elective	Open Elective	3	Fa/Sp/Su
		Total	15				Total	15	

		Senior Year							
		Fall					Spring		
TX	Course No.	Course Title	Cr.	Availability	TX	Course No.	Course Title	Cr.	Availability
	CMSC	Restricted Elective	3	Fa/Sp		CMSC	Restricted Elective	3	Fa/Sp
	Minor	Minor Course	3	Fa/Sp		Minor	Minor Course	3	Fa/Sp
	Minor	Minor Course	3	Fa/Sp		Minor	Minor Course	3	Fa/Sp
	Open Elective	Open Elective	3	Fa/Sp/Su		Open Elective	Open Elective	3	Fa/Sp/Su
	Open Elective	Open Elective	3	Fa/Sp/Su		Open Elective	Open Elective	2	Fa/Sp/Su
		Total	15				Total	14	

	Restricted Electives			
Course No.	Course Title	Cr.	Pre-Req	Availability
CMSC 257	Computer Systems	4	CMSC 256	Fall/Spring
CMSC 303	Introduction to the Theory of Computation	3	CMSC 302	Fall/Spring
CMSC 304	Programming Languages	3	CMSC 256	Fall/Spring
CMSC 312	Introduction to Operating Systems	3	CMSC 311 or EGRE 364	Fall/Spring
CMSC 404	Compiler Construction	3	CMSC 401 & CMSC 304	
CMSC 408	Databases	3	CMSC 303	Fall/Spring
CMSC 410	Intro to Quantum Computing	3	CMSC 401 & MATH 310	
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	Fall
CMSC 414	Computer & Network Security	3	CMSC 401 & CMSC 312 (co-req)	Spring
CMSC 415	Intro to Cryptography	3	CMSC 401	Fall
CMSC 420	Software Project Management	3	CMSC 355	
CMSC 425	Intro to Software Analysis and Testing	3	CMSC 355	Spring
CMSC 426	Software as a Service	3	CMSC 355	Fall
CMSC 427	Design and Implementation of User Interfaces	3		Spring
CMSC 428	Mobile Programming: iOS	3	CMSC 355	
CMSC 435	Intro to Data Science	3	CMSC 401	Fall
CMSC 436	Artificial Intelligence	3	MATH 310	Fall
CMSC 437	Intro to Natural Language Processing	3	CMSC 401	Spring
CMSC 438	Machine Learning	3	CMSC 257 and MATH 310	Spring
CMSC 440	Data Communication and Networking	3	CMSC 257	Fall/Spring