

Bachelor of Science in Computer Science (Effective Spring 2022)

UNIVERSITY CORE REQUIREMENTS			
	Hr	ABET Student Outcomes	ABET Curriculum
EN 1103 English Composition I	3		
EN 1113 English Composition II	3		
Humanities Elective	3		
Humanities Elective	3		
Fine Art Elective	3		
Social Science Elective	3		
Social Science Elective	3		
GE 3513 (Writing)	3	O3, O4, O5	C3
UNIVERSITY CORE REQUIREMENTS			24
DEPARTMENTAL NON-CSE REQUIREMENTS			
MA 1713 Calculus I	3		C9
MA 1723 Calculus II	3		C9
MA 3113 Linear Algebra	3		C9
Math Elective: MA 2733 Calculus II, MA 3053 Foundations of Math, MA 4143 Graph Theory, MA 4173 Number Theory	3		C9
IE 4613 Engineering Statistics I or MA 4543 Intro Math Stat I or MA 4523 Intro To Probability or BQA 2113 Bus Stats Method I	3		C9
CH 1213 Chemistry I	3		C10
CH 1211 Chemistry Lab	1		C10
Science Electives (one course of the 2 selections must have a lab component): PH 2213 Physics I, PH 2223 Physics II, CH 1223 Chem 2, CH 1221 Chem II Lab, BIO 1134 Bio I, BIO 1144 BIO 2	6		C10

DEPARTMENTAL REQUIREMENTS			
	Hr	ABET Student Outcomes	ABET Curriculum
CSE 1011 Intro to CSE	1		
CSE 1284 Intro Comp Programming	4		C5, C7
CSE 1384 Inter Comp Programming	4		C1, C5, C7
CSE 2383 Data Struc & Anl of Alg.	3	O1, O2	C1, C4, C5
CSE 2813 Discrete Structures	3		C4, C9
CSE 2213 Methods & Tools for Software Development	3	O2, O6	C1, C2, C6
CSE 3183 Systems Programming	3		C6, C7
CSE 3723 Computer Organization	3	O2	C2, C4, C6, C7
CSE 3763 Legal & Ethical Issues	3	O3, O4	C3
CSE 4714 Theory & Implementation of Programming	4	O2, O6	C1, C4, C7, C8
CSE 4833 Algorithms	3	O1	C4, C7
CSE 4733 Operating Systems I	3	O2	C1, C4, C6, C7
Concentration Courses (or technical electives if no concentration)	9		
Technical Electives (18 hours must be CSE upper level)	18		
Free electives	15		
DEPARTMENTAL NON-CSE REQUIREMENTS			25
TOTAL CSE REQUIRED			79
TOTAL HOURS IN PROGRAM			128

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Concentration Courses

Systems

CSE 4153 Data Communications and Networks
CSE 4163 Designing Parallel Algorithms
CSE 4503 Database Management Systems
CSE 4723 Compiler Construction
CSE 4743 Operating Systems II

Artificial Intelligence

CSE 4633 Artificial Intelligence
CSE 4643 AI Robotics
CSE 4653 Cognitive Science
CSE 4673 Machine Learning and Soft Comp

Computational Science

CSE 4163 Designing Parallel Algorithms
CSE 4623 Computational Biology
MA 4243 Data Analysis I
MA 4313 Numerical Analysis I
MA 3253 Differential Equations I

Human and Visual Computing

CSE 4413 Introduction to Graphics
CSE 4443 Game Design
CSE 4653 Cognitive Science
CSE 4663 Human Computer Interaction
IE 4113 Human Factors Engineering

Technical Electives

IE 3913 Engineering Economy	IE 4653 Industrial Quality Control I
IE 4113 Human Factors Engineering	IE 4713 Operations Research
IE 4123 Psychology of HCI	IE 4733 Linear Programming I
IE 4333 Production Control Systems	IE 4773 Simulation
IE 4533 Project Management	BIS 4533 Decision Support Systems
IE 4573 Process Improvement Engineering	BIS 4523 Business Prog. with COBOL
IE 4623 Engineering Statistics II	Any upper-level CSE, ECE, or MA course