

**Bachelor of Science in Computer Science (Effective Fall 2022)**

<b>UNIVERSITY CORE REQUIREMENTS</b>		<b>DEPARTMENTAL REQUIREMENTS</b>	
	Hr		Hr
EN 1103 English Composition I	3	CSE 1011 Intro to CSE	1
EN 1113 English Composition II	3	CSE 1284 Intro Comp Programming	4
Humanities Elective	3	CSE 1384 Inter Comp Programming	4
Humanities Elective	3	CSE 2383 Data Struc & Anl of Alg.	3
Fine Art Elective	3	CSE 2813 Discrete Structures	3
Social Science Elective	3	CSE 2213 Methods & Tools for Software Development	3
Social Science Elective	3	CSE 3183 Systems Programming	3
GE 3513 (Writing)	3	CSE 3724 Computer Organization	4
<b>UNIVERSITY CORE REQUIREMENTS</b>	<b>24</b>	CSE 3763 Legal & Ethical Issues	3
<b>DEPARTMENTAL NON-CSE REQUIREMENTS</b>		CSE 4714 Theory & Implementation of Programming	4
MA 1713 Calculus I	3		
MA 1723 Calculus II	3	CSE 4833 Algorithms	3
MA 3113 Linear Algebra	3	CSE 4733 Operating Systems I	3
Math Elective: MA 2733 Calculus III, MA 3053 Foundations of Math, MA 4143 Graph Theory, MA 4173 Number Theory	3	Concentration Courses (or technical electives if no concentration)	9
IE 4613 Engineering Statistics I or MA 4543 Intro Math Stat I or MA 4523 Intro To Probability or BQA 2113 Bus Stats Method 1	3	Technical Electives (18 hours must be CSE upper level)	18
CH 1213 Chemistry I	3	Free electives	14
CH 1211 Chemistry Lab	1	<b>DEPARTMENTAL NON-CSE REQUIREMENTS</b>	<b>25</b>
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	<b>TOTAL CSE REQUIRED</b>	<b>79</b>
		<b>TOTAL HOURS IN PROGRAM</b>	<b>128</b>



**Bachelor of Science in Computer Science (Effective Spring 2022)**

**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 4683 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 (Computer Science and Software Engineering)**

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

**Technical Electives (Cybersecurity)**

Any upper-level CSE, ECE, or MA course not already taken for the degree