Bachelor of Science
Computer Science - Major Requirements

*Courses can be applied to both- major and core requirements.

Course	Credits
Required Major Courses 56 credits	
CS 150 Introduction to Programming/Computer Science I – Intro to Python/Matlab	**4**
CS 160 Discrete Logic	**4**
CS 205 CyberOps	**3**
CS 250 Computer Science II – Python/C++	**4**
CS 217 Introduction to Data Analytics	**3**
CS 227 Principles of Artificial Intelligence and Machine Learning	**3**
CS 280 Data Structures	**3**
CS 290 CS Ethics*	3
CS 317 Machine Learning	**3**
CS 350 Computer Organizations and Structure	**3**
CS 400 Algorithms and Automata	**3**
ARTS 101 2D Arts Fundamentals or ARTS 104 Graphic Design I	**3**
CHEM 151 Principles of Chemistry I*	4
MATH 210 Statistics and Probability, **BIOL 215** Biostatistics, or **PSYC 265** Statistics for Social Sciences*	3
MATH 151 Calculus I for Science	**4**
MATH 152 Calculus II for Science	**4**
MATH 252 Differential Equation and Linear Algebra or **MATH 275** Linear Algebra	**4**
PHYS 151 Physics I for Science	**4**
PHYS 152 Physics II for Science	**4**
PSYC 101 Introduction to Psychology*	3
MAJOR CREDIT TOTAL	**56**
Major Elective Courses 14 credits	
Choose minimum 4 courses or *12 credit hours* of electives from the list below.	
No more than 4 credit hours of CS 100-level courses may be counted for electives	
CS 1xx Workshops	**1**
CS 107 Introduction to Computer Applications	**3**
CS 175 Great Ideas in Computer Science	**3**
CS xxx Special Topics	**1-6**
AI Track (6 credit hours)	
CS 327 Computer Vision	**3**
CS 407 Quantum Computing	**3**
Cloud Technology Track (6 credit hours)	
CS 370 SysOps	**3**
CS 380 DevOps	**3**
Cybersecurity Track (6 credit hours)	
CS 305 Forensics	**3**
CS 310 Operating Systems and Networks	**3**
Web Development Track (12 credit hours)	
ARTS 101 2D Art Fundamentals or **ARTS 104 Graphic Design** if **ARTS 101** already taken for major	**3**
ARTS 202 Graphic Design II	
ARTS 205 Web Design	
CS 360 FullStack WebOps	**3**
MAJOR ELECTIVE CREDIT TOTAL	**14**
COMPUTER SCIENCE REQUIREMENTS TOTAL	**70**
HOLY CROSS COLLEGE CORE REQUIREMENTS CREDIT TOTAL	**50**
MINIMUM CREDITS REQUIRED FOR GRADUATION	**120**