

2020-2021 BA in Computer Science Degree Requirements

University Requirements

Students must complete all University-level requirements for a bachelors degree including but not limited to the University Curriculum and completion of 120 credit hours.

CS Core

- CS 1341 – Principles of Computer Science
- CS 1342 – Programming Concepts
- CS 2240 – Assembly Language Programming and Machine Organization
- CS 2341 – Data Structures
- CS 3353 – Fundamentals of Algorithms
- CS 5343 – Operating Systems and Systems Software

CS Track Options

Choose one of the following tracks:

- Artificial Intelligence and Machine Learning Track (AI/ML):
 - CS 5320 – Artificial Intelligence
 - CS 5324 – Machine Learning in Python
 - Approved AI/ML Track Elective
- Data Engineering Track (DE):
 - CS 5330 – File Organization and Database Management
 - CS 5337 – Information Retrieval and Web Search
 - Approved DE Track Elective
- Cybersecurity:
 - CS 5339 – Computer System Security
 - CS 5349 – Data and Network Security
 - Approved Cybersecurity Track Elective
- Software Engineering (SwE):
 - CS 5314 – Software Testing and QA
 - CS 5319 – Software Architecture and Design
 - Approved SwE Track Elective
- Research
 - CS 4397 – Research Experience for Undergrads
 - CS 5350 – Algorithm Engineering
 - Approved Research Track Elective
- General:
 - 9 credit hours of CS course work at the 5000-level and above as approved by your CS adviser.

CS Broadening Electives

Take 9 credit hours of CS course work numbered at the 3000-level and above. Broadening Electives may not be satisfied by the courses which are part of the student's chosen track.

Math & Stats

- MATH 1337 – Calculus I
- MATH 1338 – Calculus II
- MATH 3304 – Linear Algebra
- CS 2353 – Discrete Computational Structures
- STAT 2331 OR STAT 4340

Engineering Leadership

- CS 4360 – Technical Entrepreneurship
- EMIS 3308 – Engineering Management
- CEE 3302 – Engineering Communications