CS Undergraduate Curriculum Fall 2021
Required Courses

The following courses are required for CS majors.

Preparation for Major (17 units CS and 17 units Math/Stat—34 units)

CS 150, 150L	Introductory Computer Programming & Lab
CS 160, 160L	Intermediate Computer Programming & Lab
CS 210	Data Structures
CS 240	Computer Organization
CS 250	Introduction to Software Systems
MATH 150, 151	Calculus I, Calculus II
MATH 245	Discrete Mathematics
MATH 254	Introduction to Linear Algebra
STAT 250	Statistical Principles and Practices

Science Courses (8 units)

PHYS 195, 195L	Principles of Physics & Lab
PHYS 196, 196L	Principles of Physics & Lab

Upper Division Core Classes (18 units)

CS 370	Computer Architecture
CS 450	Introduction to Artificial Intelligence
CS 460	Algorithms
CS 480	Operating Systems
CS 520	Advanced Programming Languages
STAT 550	Applied Probability

CS Undergraduate Curriculum Fall 2021
Elective Courses

In consultation with their advisers student must take 18 units elective courses from listed under groups A, B, C and D with no more than 6 units from the group D.

A- Computer Systems

CS 470 UNIX System Administration	CS 562 Automata Theory
CS 530 Systems Programming	CS 572 Microprocessor Architecture
CS 532 Software Engineering	CS 574 Computer Security
CS 545 Introduction to Web Application Development	CS 576 Computer Networks and Distributed Systems
CS 546 Human Computer Interfaces	CS 578 Wireless Networks

B - Intelligent Systems

CS 553 Neural Networks
CS 556 Robotics: Mathematics, Programming, and Control
CS 559 Computer Vision
CS 583 3D Game Programming
CS 561 Deep Learning for Natural Language Processing
CS 549 Machine Learning

C - Data Science

CS 503 Scientific Database Techniques	CS 558 Computer Simulation
CS 514 Database Theory and Implementation	CS 581 Computational Linguistics
CS 537 Component GIS Architectures	CS 582 Introduction to Speech Processing
CS 577 Principles and Techniques of Data Science	

D. Special Courses

CS 496 Experimental Topics
CS 497 Undergraduate Research Seminar
CS 498 Undergraduate Honors Thesis
CS 499 Special Study
CS 596 Advanced Topics in Computer Science