CS 149: Introduction to Programming

CS 159: Advanced Programming

B-

CS 277: Discrete Structures I

Open to all

Open to fully admitted only

MATH 231 or 235

CS 240: Data Structures and Algorithms

CS 261: Computer Systems I

CS 343: Application Development

CS 345: Software Engineering

Applications electives:
- CS 347: Web Development
- CS 447: Interaction Design

Advanced systems electives:
- must take at least one
  - CS 432: Compilers (also req. CS 327)
  - CS 450: Operating Systems
  - CS 455: Advanced Computer Networking
  - CS 456: Computer Architecture
  - CS 470: Parallel and Distributed Systems

Security electives (req. for infosec certificate):
- CS 457: Information Security (*) (co-req. CS 361)
- CS 458: Cyber Defense (req. CS 361 and 457)
- CS 482: Selected Topics in Information Security (req. CS 240 and 261, and others by topic)

By permission only:
- CS 280: Projects in Computer Science
- CS 480: Selected Topics in Computer Science
- CS 497: Independent Study

Advanced algorithms (must take one):
- CS 412: Applied Algorithms (*)
- CS 452: Design and Analysis of Algorithms (*)

Robotics/AI electives:
- CS 354: Autonomous Robotics (*)
- CS 444: Artificial Intelligence (*)
- CS 445: Machine Learning (*) (also req. CS 327)

Miscellaneous electives:
- CS 349: Developing Interactive Media (req. CS 240)
- CS 374: Database Systems (req. CS 240 or CS 343)
- CS 446: Software Analysis and Design (req. CS 240 and 345)
- CS 448: Numerical Analysis (req. MATH 237, 238/300, and 248) (#)
- CS 449: Numerical Analysis for Differential Equations (req. MATH 237, 238/336, and 248) (#)
- CS 462: Network Applications Development (req. CS 361)
- CS 488: Computer Graphics Applications (req. CS 240 and 261)

No prerequisites aside from full admission:
- CS 330: Societal and Ethical Issues in Computing
- CS 332: Technical Communication for Computer Science
- CS 442: Logic in Computer Science

(*) Also requires statistics (MATH 220, 229, or 318)
(#) Typically taken only by dual Math majors as MATH 448/449 (cross-listed)

Arrows indicate prerequisites.
Most prerequisites require a grade of C- or higher.

(Shading indicates required courses)