CS 101

CS 149

B-

(satisfied by MATH 245)

CS 227 ← corequisite ---- CS 159

JMU Department of Computer Science

Open to all

Guaranteed admission for >= 3.0 average in CS 149 and 159

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 374: Database Systems
- CS 447: Interaction Design

CS 327: Discrete Structures II

CS 430: Programming Languages

CS 361: Computer Systems II

Robotics/AI electives:

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

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

Advanced algorithms (must take one):

- CS 412: Applied Algorithms (*)
- CS 452: Design and Analysis of Algorithms (*)

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)

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

By permission only:

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

Miscellaneous electives:

- CS 349: Developing Interactive Media (req. CS 240)
- 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 488: Computer Graphics Applications (req. CS 240 and 261)

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

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

(line borders indicate required courses)