| Subject | Course Number | Course Title | Prerequisites designated with a + might be taken concurrently. Courses designated with a * must be completed with a C or better | Co-requisites | Restrictions | | | | Semester | | | Major | Cross List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FR | SO | JR | SR | Fall | Spring | Summer | | |
| CS | 1110* | Intro to Problem Solving | none | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | CS or LDCS | |
| CS | 1120* | Computational Thinking | CS 1301* **AND** CS 1101* **OR** CS 1401* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 1190* | Special Topics in Computing | MATH 1508* **OR** MATH 1310* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 1191* | Special Topics in Computing | MATH 1508* | none | | | | | | | | | |
| CS | 1290* | Special Topics in Computing | MATH 1508* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | CS 1190 |
| CS | 1291* | Special Topics in Computing | MATH 1508* | none | ✓ | ✓ | ✓ | ✓ | | ✓ | | | |
| CS | 1310[a] | Introduction to Computer Programming | none | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 1320[b] | Computer Programming for Scientists and Engineers | MATH 1508* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 1301 | Introduction to Computer Science | MATH 1508* | CS 1101 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 1101 | Introduction to Computer Science Lab | MATH 1508* | CS 1301 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 2101* | Discrete Structures I | MATH 1508* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 2202* | Discrete Structures II | MATH 1411* **AND** CS 2101* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 2210* | Algorithmic Thinking in Problem Solving | MATH 2300* **AND** CS 2302* **OR** CS 2202* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 2302 | Data Structures | CS 2401* **AND** MATH 2300* **OR** CS 2201* **AND** CS 2201* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 2401 | Elementary Data Structures and Algorithms | CS 1401* **OR** CS 1101* **AND** CS 1301* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 3195 | Junior Professional Orientation | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | X | X | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 3320 | Computer Architecture II: Advanced Comp Design and Implementation | CS 3432* **AND** EE 2369* | Offered irregularly | | | | | | | | | |
| CS | 3331 | Advanced Object-Oriented Programming | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 3350 | Automata, Computability, and Formal Languages | (CS 2302* **AND** MATH 2300*) **OR** (CS 2401* **AND** MATH 2300*) **OR** (CS 2202* **AND** CS 2302*) **OR** (CS 2202 **AND** CS 2401) | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 3360 | Design and Implementation of Programming Languages | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 3370 | Computer Graphics | MATH 2300* **OR** CS 2202* **AND** CS 2302* **AND** MATH 3323* | none | | | | | | | | | |
| CS | 3432 | Computer Architecture I: Computer Organization and Design | CS 2302* **AND** EE 2369* **AND** EE 2169* **AND** MATH 2300* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 4173 | Computer Science Internship | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 4175 | Parallel Computing | CS 3331* **AND** CS 3432* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4177 | Software Vulnerabilities | CS 3432* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4181 | Undergraduate Seminar | CS 3331* | none | | | | | | | | | |
| CS | 4273 | Computer Science Internship | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 4310 | Software Engineering: Requirements Engineering | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4311 | Software Engineering: Design and Implementation | CS 4310* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4316 | Computer Networks | CS 2302* **AND** CS 3432* | none | ✓ | ✓ | ✓ | ✓ | | ✓ | | | CS 5313 |
| CS | 4317 | Human-Computer Interaction | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | | | | | | | | | |
| CS | 4318 | Wireless Networks | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | | ✓ | | | CS 5390 |
| CS | 4320 | Artificial Intelligence | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | | | | | | | | | |
| CS | 4330 | Mobile Application Development | CS 3331* | none | | | | | | | | | |
| CS | 4339 | Secure Web-Based Systems | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | | | | CS 5339 |
| CS | 4342 | Database Management | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | CS | CS 5342 |
| CS | 4351 | Computer Security | CS 3432* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4352 | Compilers and Interpreters | CS 3350* **OR** CS 3333* | none | | | | | | | | | |
| CS | 4361 | Machine Learning | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4362 | Data Mining | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | CS 5362 |
| CS | 4363 | Computer Vision | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | | | | | | | | | |
| CS | 4364 | Topics in Data Science | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | CS 5364 |
| CS | 4365 | Topics in Soft Computing | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | CS 5351 |
| CS | 4371 | Computer Science Problems | none | none | X | X | X | ✓ | ✓ | ✓ | ✓ | CS | |
| CS | 4373 | Computer Science Internship | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| CS | 4374 | Software Construction | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | ✓ | | | | CS 5374 |
| CS | 4375 | Theory of Operating Systems | CS 3432* | none | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CS | 4376 | Comp Dcsn-Mkng & Risk Analysis | MATH 2300* **OR** CS 2202* **AND** CS 2302* | none | ✓ | ✓ | ✓ | ✓ | ✓ | | | | CS 5376 |
| CS | 4377 | Cyber-Sec for Critical Op Tech | CS 3331* | none | | | | | | | | | |
| CS | 4379 | Software Reverse Engineering | CS 3432* | none | ✓ | ✓ | ✓ | ✓ | ✓ | | | | CS 5375 |
| CS | 4381 | Topics Software Engineering | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| CS | 4387 | Software Integration and V&V | CS 3331* | none | ✓ | ✓ | ✓ | ✓ | | ✓ | | | |
| CS | 4390 | Special Topics in Computer Science | none | none | X | X | X | ✓ | ✓ | ✓ | | CS | CS 5390 |
| CS | 4392 | Research Methods in Computer Science | none | none | | | | | | | | | |
| CS | 4393 | Senior Project | none | none | | | | | | | | | |