Recommended Computer Science Core Curriculum (BS) for

Information Assurance and Cyber Security Career Focus

**Required Core Courses (58 Units):**

- Discrete Structures (CS 130)
- Intro to Computer Science (CS 140)
- Intro to Programming and Problem-Solving (CS 141)
- Computer Logic (CS 210)
- Data Structures and Algorithms I (CS 240)
- Data Structures and Algorithms II (CS 241)
- C++ Programming (CS 256)
- Computer Organization and Assembly Programming (CS 264)
- Language Translation and Automata (CS 311)
- Design and Analysis of Algorithms (CS 331)
- Computer Architecture (CS 365)
- Programming Languages (CS 408)
- Operating Systems (CS 431)
- Undergraduate Seminar (CS 463)
- Software Engineering (CS 480)

**Elective Core Courses (28 Units):**

*All courses from the following list are required for the career focus*

- Unix and Scripting (CS 260)
- Computer Networks (CS 380)
- Secure Communication (CS 460)
- Wireless Security (CS 499/Chen)
- Senior Project in Cyber Security (CS 461 & 462)

*Two courses from the following list are required for the career focus*

- Parallel Processing (CS 370)
- Artificial Intelligence (CS 420)
- Database Systems (CS 435)
- Mobile Computing (CS 499/Sun)
- Big Data and Cloud Computing (CS 499/Yang)
- Machine Learning (CS 499/Manna)

Note: These courses are in addition to the required support courses and GE requirements as described in the Degree Curriculum Sheet.