

Computer Science with Cyber Security Course Plan

Catalog Year 2021-2022

Legend

*** Major Requirement**

Must be taken to fulfill major requirements.

† Major Elective

Must be taken to fulfill major requirements, or replaced with an equivalent course.

‡ Gen-Ed Requirement

Must be taken to fulfill general education requirements.

§ Elective

Can be chosen from a selection of courses.

See *MyGFU* for detailed academic requirements.

First Year

Fall Semester

| | |
|---|-------------------|
| Introduction to Computer Science I (CSIS 201) * | 3 credits |
| Calculus I (MATH 201) * | 4 credits |
| Communication in Society (COMM 111) ‡ | 3 credits |
| Caring for Words (WRIT 111) ‡ | 3 credits |
| The Bible (THEO 101) ‡ | 3 credits |
| Semester Total | 16 credits |
| Cumulative Total | 16 credits |

Spring Semester

| | |
|--|-------------------|
| Introduction to Computer Science II (CSIS 202) * | 3 credits |
| Why Math Matters (MATH 170) ‡ | 3 credits |
| Personhood (PSYC 100) ‡ | 3 credits |
| The Modern and Postmodern World ‡ | 3 credits |
| Christianity (THEO 102) ‡ | 3 credits |
| Semester Total | 15 credits |
| Cumulative Total | 31 credits |

Second Year

Fall Semester

| | |
|--|-------------------|
| Data Structures (CSIS 310) * | 3 credits |
| Software Engineering (CSIS 321) * | 3 credits |
| Digital Logic (ENGE 220) * | 4 credits |
| Discrete Mathematics (MATH 260) * | 3 credits |
| Art and Global Culture (ARTP/V 120) ‡ | 3 credits |
| Internships: Finding & Landing (optional/recommended) (CPAS 216) § | 1 credits |
| Semester Total | 17 credits |
| Cumulative Total | 48 credits |

Spring Semester

| | |
|--|-------------------|
| Analysis of Algorithms (CSIS 430) * | 3 credits |
| Object-Oriented Analysis/Design (CSIS 370) * | 3 credits |
| Computer Security Digital Forensics (CSIS 312) * | 3 credits |
| Faith and Story (LITR 111) ‡ | 3 credits |
| Science and Faith (GSCI 170) ‡ | 3 credits |
| Semester Total | 15 credits |
| Cumulative Total | 63 credits |

Third Year

Fall Semester

| | |
|--|-------------------|
| Database Systems (CSIS 340) * | 3 credits |
| Data Communications & Networking (CSIS 350) * | 3 credits |
| Computer Architecture/Assembly Language (CSIS 360) * | 3 credits |
| Emerging Mobile Technologies (CSIS 390) * | 3 credits |
| Servant Engineering I (ENGR 381) * | 2 credits |
| Justice (SSCI 100) ‡ | 3 credits |
| Semester Total | 17 credits |
| Cumulative Total | 80 credits |

Spring Semester

| | |
|-------------------------------------|-------------------|
| Secure Software (CSIS 473) * | 3 credits |
| Network Administration (CSIS 450) * | 3 credits |
| Operating Systems (CSIS 460) * | 3 credits |
| Servant Engineering II (CSIS 382) * | 2 credits |
| Elective or Juniors Abroad § | 3 credits |
| Semester Total | 14 credits |
| Cumulative Total | 94 credits |

Fourth Year

Fall Semester

| | |
|---|--------------------|
| Parallel & Distributed Computing (CSIS 434) * | 3 credits |
| Advanced Cyber Security (CSIS 413) * | 3 credits |
| Programming Languages (CSIS 420) * | 3 credits |
| Senior Design I (ENGR 481) * | 1 credits |
| Ethics (THEO 380) ‡ | 3 credits |
| Semester Total | 13 credits |
| Cumulative Total | 107 credits |

Spring Semester

| | |
|-------------------------------|--------------------|
| Cyber Defense (CSIS 451) * | 4 credits |
| Senior Design II (ENGR 482) * | 3 credits |
| Elective Credits § | 6 credits |
| Semester Total | 13 credits |
| Cumulative Total | 120 credits |