

Computer Science with Cyber Security Course Plan

Catalog Year 2022-2023

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