CEDARVILLE UNIVERSITY™

COMPUTER SCIENCE (CS)

Curriculum and Prerequisites for the B.S. Degree

FRESHMAN

FALL

- General Physics I — 4 — PHYS 2110
- Calculus I — 5 — MATH 1710
- Intro to Cybersecurity — 3 — CY 1000
- C++ Programing — 2 — CS 1210
- Digital Logic Design — 3 — EGCP 1010

SPRING

- Calculus II — 5 — MATH 1720
- Obj Oriented Design C++ — 3 — CS 1220

SOPHOMORE

FALL

- General Physics II or Intro to Biology — 4 — PHYS 2120 BIO 1110
- Cyber Defense — 3 — CY 3420
- Programming Lang Survey — 3 — CS 3210
- Data Structures or Operating Systems — 3 — CS2210/3310

SPRING

- Discrete Math & Prob Principles — 3 — MATH 2520
- Operating Systems or Data Structures — 3 — CS2210/3310
- Computer Architecture — 3 — EGCP 3210

JUNIOR

FALL

- Computer Networks — 3 — EGCP 4310
- Computer Science — 3 — Elective
- Algorithms — 3 — CS 3410

SPRING

- Computer Science — 3 — Elective
- Web Applications — 3 — CS 3220
- Database — 3 — CS 3610

SENIOR

FALL

- Computer Science — 3 — Elective
- Software Engineer I — 3 — CS 4810
- Senior Seminar — 0 — EGGN 4010

SPRING

- Compiler Theory — 3 — CS 3510
- Software Engineer II — 4 — CS 4820
- Professional Ethics — 3 — EGGN 3110

Prerequisite

Corequesite

Credit 3 hours

Cyber Operations Courses

Math and Science Courses

EGCP Electives

3010 Adv Digital Logic Design
4210 Adv Comp Architecture

CS Electives

3320 Linux Sys Programming
4310 Cyber Operations
4320 Software Security
4410 Parallel Computing
4430 Machine Learning
4710 Computer Graphics
4730 VR Applications

Bible Courses

- The Bible and the Gospel — 3 — BTGE 1725
- Old Testament Literature — 3 — BTGE 2730
- New Testament Literature — 3 — BTGE 2740
- Theology I — 3 — BTGE 3755
- Theology II — 3 — BTGE 3765

} 15hrs

General Education Courses

- Physical Activity and Healthy Living — 2 — PEF 1990
- Composition — 3 — ENG 1400
- Fund of Speech — 3 — COM 1100
- Politics and American Culture — 3 — GSS 1100
- Intro to Humanities — 3 — HUM 1400
- Biology — 3.5 — Elective
- History — 3 — Elective
- Social Science — 3 — Elective
- Literature — 3 — Elective

} 26.5hrs

Fall 2024