# B.S. IN COMPUTER SCIENCE MAJOR w/ Minors: Sample 4-Year Plan (2024-2025)

## FRESHMAN (28 hours)

Fall Semester (13 hours)	Spring Semester (15 hours)
COR 1002 Gateway Seminar	BBL 1013 Old Testament Survey
EGL 1013 English I	EGL 1023 English II
MTH 1163 Calculus I	Social Behavioral Science Elective* <sup>(3 hrs)</sup>
EN 1112 Intro to Eng/CS/CYB	CS 1513 Java Programming
CS 1233 Object-Oriented Programming	MTH 1153 Linear Algebra

## **SOPHOMORE** (34 hours)

Fall Semester (18 hours)	Spring Semester (16 hours)
BBL 1023 New Testament Survey	HST 2023 Integrated Humanities II
HST 2013 Integrated Humanities I	Natural Science Elective II* (4 hours w/lab)
Natural Science Elective I* <sup>(3 hours)</sup>	EE 2212/1 Digital Electronics & Lab
CS 2173 Computer Networking	CS 2243 Data Structures and Algorithms
CS 2823 C# & DotNet	CS 2423 Web Applications
MTH 2213 Discrete Mathematics	

## JUNIOR (30 hours)

Fall Semester (15 hours)	Spring Semester (15 hours)
BBL 2013 Evangelical Theology	BBL 2022 Christian Formation
CS 3213 CA/OS	□ Whole Person Wellness Elective* <sup>(2 hrs)</sup>
CS 3363 Database Design	Statistics Elective* <sup>(3 hrs)</sup>
Minor/Elective* <sup>(3 hours)</sup> - Adv. Web App	EN 3222 Collaborative Design Lab
Minor/Elective* <sup>(3 hours)</sup> – Artifi. Intel.	CS 3533 Software Engineering
	Minor/Elective* <sup>(3 hrs)</sup> – Machine Learning

# SENIOR (30 hours)

Fall Semester (15 hours)	Spring Semester (13 hours)
Arts & Humanities Elective* <sup>(3 hours)</sup>	Arts/Hum or Social/Bhv Elec* <sup>(3 hrs)</sup>
IC Engagement Elective* (3 hrs)	EN 4123 Capstone II
EN 4113 Capstone I	☐ Minor/Elective* <sup>(3 hours)</sup> – Adv. Comp. Conc
Minor/Elective* <sup>(3 hours)</sup> – Adv Java	☐ Minor/Elective <sup>*</sup> <sup>(3 hrs)</sup> – Software Tstg & QA
Minor/Elective* <sup>(3 hours)</sup> – BigData/Cloud	General Elective* (1-3 hours)

\*See the Academic Catalog for the list of classes that meet this criteria.

(Minors as necessary to complete the minimum of 120 hours total) - please turn over the page for Minor courses

## MINORS for BS – Computer Science (Opt for at least one of the following Minors) - 18 hours

## Artificial Intelligence

- CS 1233 OOP
- CS 2243 Data Structures
- CS 3643 Artificial Intelligence
- CS 3773 Big Data & Cloud Computing
- □ CS 4023 Advanced Computing Concepts
- CYB 7103 Cybersecurity Foundations (Online)

### Full Stack Development

- CS 1233 OOP
- CS 2423 Web Applications
- CYB 7103 Cybersecurity Foundations (Online)
- CS3683 Advance Java Programming
- CS3473 Advanced Web Applications
- CS4083 Software Testing & Quality Assurance

## Cybersecurity

CS 1113 Intro to Computing
Any ONE
BUS 2193 Business Statistics (On Campus and
Online)
MTH 1003 Introduction to Statistics (On
Campus and Online)
MTH 2103 Applied Statistics for Scientists (On
Campus)
Any FOUR
CYB 7103 Cybersecurity Foundations (Online)
CYB 7223 Network and Cloud Security (Online)
CYB 7233 Information Technology Risk
Management (Online)
CYB 7243 Web Application Security (Online)
CYB 7433 Incident Management (Online)

### Game Design Minor

- ART 1123 Computer Graphics
- □ CS 1113 Introduction to Computing
- CS 3333 Game Design 1
- CS 3343 Game Design 2
- EGL 2273 Introduction to Creative
  Writing

## Any One

- ART 2273 3D Modeling for Designers & Illustrators
- ART 2613 Digital Illustration

### Data Analytics

#### Any One

- CS 1113 Intro to Computing
- CS 1233 Object Oriented Programming

### Any One

- BUS 2193 Business Statistics
- MTH 1003 Introduction to Statistics
- MTH 2103 Applied Statistics for Scientists

## Any TWO

- DAT 3113 Basic Data Analytics
- DAT 4253 Business Decision Modeling &
  Predictive Analysis
- DAT 4313 Data Visualization

### Any TWO

- CS 2243 Data Structures and Algorithms
- CS 3363 Database Design
- CS 3643 Artificial Intelligence
- CS 3773 Big Data & Cloud Computing