

BS Computer Science

12 credits in the major and 9 credits in the minor must be completed at Alvernia University
When pursuing a double major, you must have 12 distinct credits between the two majors.

Semester 1	Credits	Semester 2	Credits
Diversity graduation requirement cannot be fulfilled through major courses; students should fulfill this with a Gen Ed SEARCH class			
Writing Enhanced graduation requirement cannot be fulfilled through major courses; students should fulfill this with a Gen Ed SEARCH class			
SRH 101: Search Sem-Enduring Questions or HNR 160: Honor Search-Enduring Questions THE 105 or PHI 105	3	CS 155: Object-Oriented Programming THE 105 or PHI 105 Gen Ed	3 3 3
CS 115: Intro to Programming	3	Gen Ed	3
CS 120: Intro to IT	3	MAT 230: Calculus I	4
MAT 131 Pre-calculus or Gen Ed if MAT 131 is not needed.	3		
TOTAL	15	TOTAL	16
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
Semester 3	Credits	Semester 4	Credits
CS 210: Computer Organization & Assembly Language	3	CS 220: Data Structures and Algorithms CYB/DS 210	3 3
MAT 250: Discrete Mathematics	3	MAT 231: Calculus II	4
CYB/DS 110	3	Gen Ed or	3
Gen Ed	3	Gen Ed (Foreign Language suggested)	3
Gen Ed (Foreign Language suggested)	3		
TOTAL	15	TOTAL	16
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
Semester 5	Credits	Semester 6	Credits
CYB/DS 310	3	CS 320: Algorithm Design & Analysis	3
CS 310: Operating Systems	3	CS Elective	3
MAT 209: Probability & Statistics	3	Gen Ed (MAT if MAT 131 was not needed)	3
Gen Ed (Lab Course Recommended)	4	Gen Ed	3
Gen Ed	3	Elective	3
TOTAL	15	TOTAL	15
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
Semester 7	Credits	Semester 8	Credits
CS 400: Database Systems	3	CS 425: Software Development	3
CYB/DS 410	3	CS 420: Computer Science Seminar	3
SCI 406: Research I Or SCI 480: Internship	3	SCI 407: Research II Or SCI 480: Internship	3
Gen Ed	3	Elective	3
Elective	3	Elective	3
TOTAL	15	TOTAL	15
Complete 5 hours of Community Service		Complete 5 hours of Community Service	

Academic Policy on Eligibility for Participation of May Commencement Ceremony

The academic policy, which the Registrar follows, is: A student who has 6 or less credits remaining to complete the degree may participate in the May Commencement Ceremony. The Graduation Application is available online in myAlvernia on the 'Academics' tab. Seniors must submit the Graduation Application to the Registrar's Office as follows: October 1 for May Graduation; December 1 for August graduation; and March 1 for December graduation.

If you have any questions, please call the Registrar's Office (610.796.8201)

Curriculum Sheets, EAB Navigate, and AUAdvise

The information on this page and the Curriculum Sheet is provided in AUAdvise - EAB Navigate as a static tool for discussion purposes when meeting with students to schedule courses. [Degree Audit uAchieve](#) remains the official source for each student's curriculum audit. Degree Audit uAchieve must be used together with the Curriculum Sheet to determine whether the information noted during scheduling meetings on the curriculum sheet remains accurate.

General Notes

- A minimum of 123 credits are required for graduation.
- Where appropriate, courses required for the major can be used to satisfy General Education requirements. However, the credits earned for these courses are applied to either Gen Ed requirements or the major, not both.
- Paths of Knowledge coursework may count towards major or minor requirements but may not fulfill a second Mid-Level Liberal Arts Exploration requirement.
- Students are expected to follow the catalog requirements for General Education, the major, and additional requirements.
- A minor or second major within the areas listed under Paths of Knowledge automatically fulfills that area of the Gen Ed requirements.
- Students must complete 45 of their last 60 credits at Alvernia University
- Students must complete community service hours as part of the General Education Program

Degree/Major: BS COMPUTER SCIENCE

Name: _____ Id: _____

2nd Major: _____ 3rd Major: _____ Minor: _____ 2nd Minor: _____

Matriculation Year 2023-2024 - Term: _____

GENERAL EDUCATION

GradeNotes:

Enduring Questions (12 cr)

SEARCH Sem. Enduring Questions (3) _____
 THE 105 Foundations of Theology (3) _____
 PHI 105 Introduction to Philosophy (3) _____
 COM 101 Composition & Research (3) _____
 (C grade or better)

Exploring the Natural World (6-8)

MAT _____ (3-4) _____
 (not MAT 100, 209, 230, or 250)
 _____ (3-4) _____
 (Science with Lab)

Culture & Language (9 cr)

COM _____ (3) _____
 (not COM 100 or 101)
 World Language – 2 courses in sequence
 _____ (3) _____
 _____ (3) _____

Individuals & Communities (6 cr)

HIS or POS _____ (3) _____
 _____ (3) _____
 (PSY, HIS, POS, SOC, SSC, or ECON)

Creative Expressions (6 cr)

LIT _____ (3) _____
 _____ (3) _____
 (Art, Music, or Theatre)

Ethical Leaders & Followers (6 cr)

THE/PHI _____ (3) _____
 (200-400 level)
 THE/PHI _____ (3) _____
 (ethics/morality @ 200 level)

Paths of Knowledge (9 cr @ 200-400 level in ONE path)

Path 1: Interdisciplinary Study; at least two from Liberal Arts

Path 2: Multidisciplinary Study; at least two from Liberal Arts

Path 3: In-depth Disciplinary Study-MATH

Met in Related Area with MAT 209 (x) _____
 Met in Related Area with MAT 230 (x) _____
 Met in Related Area with MAT 250 (x) _____

Human Diversity: _____
 Senior Capstone: *Met with SCI 406/407 or 480*
 Writing Enhanced Course: _____
 Community Service Hours: Required: _____ Met: _____
 Overall GPA >= 2.00
 GPA in Major >= 2.00

Residency Requirements:

45 of last 60 credits
 Min 12 Alvernia credits in major
 Min 9 Alvernia credits in minor (if applicable)
 Min 123 non-remedial credits earned

COMPUTER SCIENCE (65 cr)

GradeNotes:

Major (36 cr)

CS 115 Intro to Programming (3) _____
 CS 120 Intro to IT (3) _____
 CS 155 Intro Object-Oriented Prog (3) _____
 CS 210 Comp Org/Assembly Lang (3) _____
 CS 220 Data Structures & Algorithms (3) _____
 CS 310 Operating Systems (3) _____
 CS 320 Algorithm Design & Analysis (3) _____
 CS 400 Database Systems (3) _____
 CS 420 Computer Science Seminar (3) _____
 CS 425 Software Development (3) _____

Select:

SCI 480 Internship () _____
 SCI 480 Internship () _____
 (must complete a total of 6 credits)

OR

SCI 406 Research I (3) _____
 SCI 407 Research II (3) _____

Choose One Track (15 cr) Cyber

Security Track

CYB 110 Intro to CyberSecurity (3) _____
 CYB 210 Modern CS Design (3) _____
 CYB 310 Computer Network & CS (3) _____
 CYB 410 Computer Forensics (3) _____
 CS/CYB/MAT at 300+ _____ (3) _____

OR

Data Science Track

DS 110 Data Analytics (3) _____
 DS 210 Data Visualization/Methods (3) _____
 DS 310 Data Mining/Machine Learn (3) _____
 DS 410 Advanced Methods (3) _____
 CS/DS/MAT at 300+ _____ (3) _____

Math Related Requirements (14 cr)

MAT 209 Probability & Statistics (3) _____
 MAT 230 Calculus I (4) _____
 MAT 231 Calculus II (4) _____
 MAT 250 Discrete Mathematics (3) _____

Recommended (3 cr):

MAT 131 Pre-Calculus (3) _____

MINOR (optional) (17-21 cr)

_____ () _____
 _____ () _____
 _____ () _____
 _____ () _____
 _____ () _____
 _____ () _____
 _____ () _____

ELECTIVES (as needed)

_____ () _____
 _____ () _____
 _____ () _____
 _____ () _____
 _____ () _____