

Data Science

(Applies to Students enrolling during the Academic Year beginning in August 2026) Total Credits in Program: 125

Semester 1	Cr	Semester 2	Cr
SRH 101 Search Sem-Enduring Questions or HNR 160 Honor Search-Enduring Questions	3	CS 155 Object-Oriented Programming	3
THE 105 or PHI 105	3	CS 162 Database Systems	3
CS 115 Intro to Programming	3	MAT 230 Calculus I	4
CS 120 Intro to IT	3	THE 105 or PHI 105	3
MAT 131 Pre-calculus or Gen Ed if MAT 131 is not needed.	3	Gen Ed	3
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	15	TOTAL CREDITS	16
Semester 3	Cr	Semester 4	Cr
DS 110 Introduction to Data Science	3	DS 210 Data Visualization & Methods of Data Science	3
CS 140 Introduction to Networking	3	CS 220 Data Structures and Algorithms	3
CS 212 Project Management	3	MAT 209 Probability & Statistics	3
MAT 250 Discrete Mathematics	3	Gen Ed	3
Gen Ed (Foreign Language suggested)	3	Gen Ed (Foreign Language suggested)	3
		Elective	3
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	15	TOTAL CREDITS	18
Semester 5	Cr	Semester 6	Cr
DS 310 Data Mining & Machine Learning	3	DS 410 Advanced Methods of Data Science	3
CS 320 Algorithm Design and Analysis	3	MAT 240 Linear Algebra	3
DS Elective or Gen Ed	3	Gen Ed or DS Elective	3
Gen Ed (Lab Course Suggested)	4	Gen Ed (MAT if MAT 131 was not needed)	3
Gen Ed	3	Gen Ed	3
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	16	TOTAL CREDITS	15
Semester 7	Cr	Semester 8	Cr
CS 417 Governance, Risk, and Compliance	3	DS Elective	3
DS Elective	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	Gen Ed	3
Gen Ed	3	Elective	3
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	15	TOTAL CREDITS	15

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Student Notes

- Students must enroll in courses required for second majors and minors when available, as shown in the Academic Completion Plans. Academic Completion Plans may not be accurate for declared second majors, depending upon the semester you declare. Completion of such additional major(s) could increase time to degree completion.
- You must meet with your minor advisor and consult the published Course Rotation Schedules to determine when the necessary classes are offered for your minor. You may not add additional time to degree completion beyond the completion of your major courses to complete the minor. Graduation may not be delayed after major requirements are met to complete a minor. Students making the decision to complete a minor or additional major may incur additional costs, financial aid adjustments, and elongated time to graduation (when such elongation is not prohibited by financial aid considerations).
- The Alvernia 15.4460 Graduation Policy published on Alvernia's policy webpage and the current Alvernia Course Catalog detail graduation requirements, honors at graduation, and eligibility to participate in the Commencement Ceremony.
- The Graduation Application is available on-line in myAlvernia in the 'Student Resources' tab under 'Registrar's Office'. Seniors must submit the online Graduation Application form by the following applicable date: October 1 for May Graduation; December 1 for August graduation; and March 1 for December graduation.

Advising Notes for Students, Faculty, Navigators and GAE Student Success Advisors

Course Catalogs (published on Alvernia's webpage)

Students must refer to the Course Catalog for the year they enrolled (matriculated) at Alvernia for program requirements. Students may elect to move to a later year with permission from the Department Chair and Dean by completing and submitting the published online form to the Registrar. General academic policies in the Course Catalog may be revised by Alvernia during a student's student's matriculation based on continuously improved practices or federal and state laws and regulations. All such changes will apply to students regardless of matriculation year.

Academic Completion Plans & Course Rotation Schedules (published on myAlvernia)

Academic Completion Plans (formerly 8-semester plans) provide the course timing by semester for each program. Course Rotation Schedules provide multi-year information listing specific course offerings by term. Courses will be scheduled based on the Academic Completion Plans and students must enroll in the specific courses listed during the semester indicated.

AUAdvise (available on myAlvernia logins)

Degree Audit uAchieve remains the official source for each student's curriculum audit and provides the opportunity to use the "what if" function to run scenarios for major changes or additions of minors.

EAB Navigate (available on myAlvernia for faculty and advisors, on app for students)

EAB Navigate is the official tool that faculty, advisors, navigators, GAE Student Success Advisors and administrators use for alerts as well as student meetings and advising session discussion notes. This tool, together with the student's degree audit from uAchieve comprise the student file that follows the student throughout their matriculation and is accessible by advisors, navigators, and other administrators for official purposes.

Additional Program Requirements and Progression Notes

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.