

Biomedical Engineering

(Applies to Students enrolling during the Academic Year beginning in August 2026) Total Credits in Program: 129

Semester 1	Cr	Semester 2	Cr
CHE 104 General Chemistry	3	COM 101 Composition & Research	3
CHE 110L General Chemistry I Lab	1	EGR 110 Engineering Design I	1
CS 115 Intro to Object-Oriented Programming	3	MAT 131 Calculus II	4
EGR 107 Engineering Lab Safety	1	PHY 200 Physics I	4
EGR 260 Undergraduate Engineering Colloquium	0.25	PHY 200L Physics I Lab	0
MAT 130 Calculus I	4	THE 105 or PHI 105	3
SRH 101 Search Seminar or HNR 160 Honors Search	3	THR 244 Computer-Assisted Design	3
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	15.25	TOTAL CREDITS	18
Semester 3	Cr	Semester 4	Cr
EE 200 Circuit Theory I	3	BME 201 Introduction to Biomedical Engineering	3
EE 271L Circuit Theory I Lab	1	EGR 210 Engineering Design II	1
EGR 201 Engineering Statics	3	EGR 260 Undergraduate Engineering Colloquium	0.25
MAT 232 Calculus III	4	MAT 322 Differential Equations	3
PHY 201 Physics II	4	ME 201 Strength of Materials	3
PHY 201L Physics II Lab	0	ME 271L Strength of Materials Lab	0.5
THE 105 or PHI 105	3	ME 202 Dynamics	3
		Gen Ed SEARCH	3
		Complete 5 hours of Community Service	
Complete 5 hours of Community Service			
TOTAL CREDITS	18	TOTAL CREDITS	16.75
Semester 5	Cr	Semester 6	Cr
BIO 107 Human Anatomy & Physiology I	4	BIO 108 Human Anatomy & Physiology II	4
BIO 117L Human Anatomy & Physiology I Lab	0	BIO 118L Human Anatomy & Physiology II Lab	0
EGR 260 Undergraduate Engineering Colloquium	0.25	BIO 211 Kinesiology	4
MAT 345 Applied Probability & Linear Methods	4	BIO 211L Kinesiology Lab	0
ME 310 Fluid Mechanics	3	EGR 306 Measurement and Dynamic Response	3
ME 371L Fluid Mechanics Lab	0.5	EGR 371L Measurement and Dynamic Response Lab	0.5
THE 210 or PHI 206	3	PHI 208 Ethics and Technology	3
Gen Ed SEARCH	3		
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	17.75	TOTAL CREDITS	14.5
Semester 7	Cr	Semester 8	Cr
BME 4xx BME Elective	3	BME 4xx BME Elective	3
BME 4xx BME Elective	3	BME 47xL BME Elective Lab	0.5
EGR 480 Capstone Design I	2	BME 4xx BME Elective	3
EGR 260 Undergraduate Engineering Colloquium	0.25	EGR 481 Capstone Design II	2
XE 4xx Engineering Elective	3	Gen Ed SEARCH	3
Gen Ed SEARCH	3	Gen Ed SEARCH	3
Complete 5 hours of Community Service		Complete 5 hours of Community Service	
TOTAL CREDITS	14.25	TOTAL CREDITS	14.5

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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

N/A