




2024 - 2025 Major Map

Biochemistry, BA



School/College: [The College of Liberal Arts and Sciences](#)
LABCHBA



In order to complete the requirements of this program, some laboratory courses will be completed in-person at the Tempe Campus.


These laboratory courses will be offered during summer. This may impact your financial aid. Financial aid is available to those who apply and qualify, and students may receive funds to help cover costs for each semester of enrollment. The amount of financial aid that a student is eligible for varies depending on prior education experience and other individual factors. [Learn](#) more about summer financial aid and additional ways to cover summer costs.


Term 1 - A 0 - 7 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 ENG 101 or ENG 102: First-Year Composition OR  ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	<ul style="list-style-type: none"> ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students. Select your Career Interest Areas and play me3@ASU.
ASU 101-LA: The ASU Experience	1		
Social and Behavioral Sciences (SOBE)	3		
Term hours subtotal:	7		

Term 1 - B 7 - 13 Credit Hours	Hours	Minimum Grade	Notes
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	<ul style="list-style-type: none"> View ASU Online first-year student registration information here.
MAT 251: Calculus for Life Sciences (MATH OR MA)	3	C	
Term hours subtotal:	6		




Term 2 - A 13 - 21 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 113: General Chemistry I (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> ASU Language Placement: Only true beginners are eligible for 101-level courses. All other students are required to take a placement exam, regardless of prior credit earned. Research the timeline for health careers and professional program admissions preparation.
Second Language: Requirement satisfied through the following:			
* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
Term hours subtotal:	8		




Term 2 - B 21 - 29 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 116: General Chemistry II (SCIT OR SQ)	4	C	
Second Language: Requirement satisfied through the following:			
* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	8		




Term 3 - A 29 - 37 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
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 PHY 101: Introduction to Physics (SCIT OR SQ)	4	C
Second Language: Requirement satisfied through the following:		
* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C
Term hours subtotal:	8	



- Research **admission requirements** for health-related professional schools.
- Students who are interested in graduate degrees in natural sciences or health-related professional degrees should take PHY 111 and PHY 113 instead of PHY 101 in this term. Then, complete PHY 112 and PHY 114 in the next term.

Term 3 - B 37 - 44 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
Second Language: Requirement satisfied through the following:			
* Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV.	4	C	
Quantitative Reasoning (QTRS)	3		
 Complete First-Year Composition requirement.			
 Complete Mathematics (MATH) requirement.			
Term hours subtotal:	7		

Term 4 - A 44 - 51 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 181: General Biology I (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> • Connect with a career advisor by registering for a Handshake account. • Create a first draft resume.
 CHM 233: General Organic Chemistry I	3	C	
Term hours subtotal:	7		

Term 4 - B 51 - 58 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 234: General Organic Chemistry II	3	C	
BIO 182: General Biology II (SCIT OR SG)	4	C	
 Complete PHY 101 OR PHY 112 AND PHY 114 course(s).			
Term hours subtotal:	7		

Summer 4 58 - 60 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 237: General Organic Chemistry Laboratory I	1	C	<ul style="list-style-type: none"> • ASU Online students will complete all experiments for the Organic Chemistry labs at the ASU Tempe campus during a one-week session in summer. Lab reports will be completed in subsequent weeks during the same summer term.
CHM 238: General Organic Chemistry Laboratory II	1	C	
Term hours subtotal:	2		

Term 5 - A 60 - 66 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 BCH 341: Physical Chemistry with a Biological Focus	3	C	<ul style="list-style-type: none"> • Consider applying for a Pre-Health Internship to gain hands-on clinical experience. For other types of internship opportunities, students can go to Handshake or connect with an academic advisor to discuss options.
Humanities, Arts and Design (HUAD)	3		
Term hours subtotal:	6		

Term 5 - B 66 - 72 Credit Hours	Hours	Minimum Grade	Notes
American Institutions (AMIT)	3		
Upper Division Elective OR BCH 484: Internship	3		
Term hours subtotal:	6		

Term 6 - A 72 - 78 Credit Hours	Hours	Minimum Grade	Notes
BIO 312: Bioethics (HUAD OR HU) OR BIO 316: History of Biology: Conflicts and Controversies (HUAD OR H) OR BIO 317: History of Science II (HUAD OR HU & H) OR BIO 318: History of Medicine (HUAD OR HU & H)	3-4	C	
Sustainability (SUST)	3		
Term hours subtotal:	6-7		
Term 6 - B 78 - 84 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ CHM 325: Analytical Chemistry	3	C	<ul style="list-style-type: none"> CHM 325 is only offered in the Spring semester.
Upper Division Elective	3		
Term hours subtotal:	6		
Term 7 - A 84 - 93 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ BCH OR CHM Upper Division Elective	3	C	<ul style="list-style-type: none"> Consider taking BCH 463 as the BCH OR CHM Upper Division Elective in this term. Upper Division BCH or CHM Elective cannot be met with BCH 361, BCH 367, BCH 371, BCH 372, BCH 373, CHM 341, CHM 460, or CHM 480. Talk with your academic advisor for options.
Complete 2 courses:	6		
Upper Division Elective			
Term hours subtotal:	9		
Term 7 - B 93 - 102 Credit Hours	Hours	Minimum Grade	Notes
Global Communities, Societies and Individuals (GCSI)	3		
Governance and Civic Engagement (CIVI)	3		
Upper Division Elective	3		
Term hours subtotal:	9		
Term 8 - A 102 - 108 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ BCH OR CHM Upper Division Elective	3	C	<ul style="list-style-type: none"> Upper Division BCH or CHM Elective cannot be met with BCH 361, BCH 367, BCH 371, BCH 372, BCH 373, CHM 341, CHM 460, or CHM 480. Talk with your academic advisor for options.
BCH 461: General Biochemistry	3	C	
Term hours subtotal:	6		
Term 8 - B 108 - 114 Credit Hours	Hours	Minimum Grade	Notes
BCH 462: General Biochemistry	3	C	<ul style="list-style-type: none"> Apply for full-time career opportunities
Upper Division Elective	3		
Term hours subtotal:	6		
Summer 8 114 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ BCH 467: Analytical Biochemistry Laboratory (L)	3	C	<ul style="list-style-type: none"> ASU Online students will complete all experiments for the Analytical Biochemistry lab at the ASU Tempe campus during a one-week session in summer. Lab reports will be completed in subsequent weeks during the same summer term.
Upper Division Elective	3		
Term hours subtotal:	6		

Hide Course List(s)/Track Group(s)

- **Total Hours:** 120
- **Upper Division Hours:** 45 minimum
- **University Undergraduate Graduation Requirements**

Notes:

Mathematics Placement Assessment score determines placement in first mathematics course.

Please keep in mind that the applicability of a specific transfer course toward an ASU degree program depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Transfer agreements that guarantee the completion of university level requirements do not necessarily meet college and major requirements. Please consult with an advisor for more information.

General Studies designations listed next to courses on the major map were valid for the 2024 - 2025 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.