













2017 - 2018 Major Map

Biochemistry (Medicinal Chemistry), BS


School/College: The College of Liberal Arts and Sciences
LABCHMBS

Term 1 0 - 15 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 117: General Chemistry for Majors I (SQ) AND CHM 111: General Chemistry Laboratory for Majors I (SQ) OR CHM 113: General Chemistry I (SQ)	4	C	<ul style="list-style-type: none"> SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses ASU Mathematics Placement Test score determines placement in mathematics course ASU 101 or college-specific equivalent First-Year Seminar required of all freshman students.
 MAT 270: Calculus with Analytic Geometry I (MA)	4	C	
CHM 191: Chemistry Topics OR LIA 101: Student Success in the College of Liberal Arts and Sciences	1		
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	
Social-Behavioral Sciences (SB) AND Global Awareness (G)	3		
Term hours subtotal:	15		
Term 2 15 - 30 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 181: General Biology I (SQ)	4	C	<ul style="list-style-type: none"> Research timeline for health careers and professional program admissions preparation.
 CHM 118: General Chemistry for Majors II (SQ) AND CHM 112: General Chemistry Laboratory for Majors II (SQ) OR CHM 116: General Chemistry II (SQ)	4	C	
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	
MAT 271: Calculus with Analytic Geometry II (MA)	4	C	
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	15		
Term 3 30 - 45 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 233: General Organic Chemistry I	3	C	<ul style="list-style-type: none"> Research admission requirements for health-related professional schools. Create a first draft resume.
 CHM 237: General Organic Chemistry Laboratory I	1	C	
 PHY 111: General Physics (SQ)	3	C	
 PHY 113: General Physics Laboratory (SQ)	1	C	
BIO 182: General Biology II (SG)	4		

Complete First-Year Composition requirement.

Complete Mathematics (MA) requirement.

Term hours subtotal: 15

Term 4 45 - 60 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
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PHY 112: General Physics (SQ)

3

C



PHY 114: General Physics Laboratory (SQ)

1

C

CHM 234: General Organic Chemistry II

3

C

CHM 238: General Organic Chemistry Laboratory II

1

C

Social-Behavioral Sciences (SB) AND Historical Awareness (H)


3

Complete 2 courses:
Elective

4

Term hours subtotal: 15

- Due to lower division pre-requisites, pre-health students are encouraged to choose upper division General Studies (HU or SB) and CLAS Science and Society courses.
- Explore internship opportunities within **industry** and **health fields**.

Term 5 60 - 75 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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BCH 341: Physical Chemistry with a Biological Focus

3

C



CHM 343: Elementary Physical Chemistry Laboratory

1

C

BCH 461: General Biochemistry

3

C

BIO 353: Cell Biology

3

C


Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)

3

Upper Division Elective

2

Term hours subtotal: 15

Term 6 75 - 90 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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BCH 462: General Biochemistry

3

C

BCH 463: Biophysical Chemistry

3

C

CLAS Science and Society Elective

3

C

Literacy and Critical Inquiry (L)

3

Elective

3

Complete Cultural Diversity in the U.S. (C) course(s).

Complete Global Awareness (G) course(s).

- Research **employment opportunities**

Term hours subtotal: 15

Term 7 90 - 105 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ CHM 433: Advanced Organic Chemistry I	3	C	<ul style="list-style-type: none"> Apply for full-time career opportunities.
BCH 467: Analytical Biochemistry Laboratory (L)	3	C	
Upper Division CLAS Science and Society Elective	3	C	
Humanities, Arts and Design (HU)	3		
Upper Division Elective OR BCH 484: Internship	3		
Term hours subtotal:		15	

Term 8 105 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ CHM 435: Medicinal Chemistry	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, CHM 460, and CHM 480.
BCH OR CHM Upper Division Elective	3	C	
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
<i>Complete 2 courses:</i> Upper Division Elective	6		
Term hours subtotal:		15	

- All students pursuing a B.S. or B.S.P. degree in the College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at <https://clas.asu.edu/advising-and-academic-services/science-and-society>. At least one of the two courses must be upper division. Students must earn a C or better in the courses, and no more than one of the two can also be used to simultaneously fill a requirement of the major, minor or related area. Science and Society courses cannot also be used to fill the general studies HU, SB, SQ or SG requirements.

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

Notes:

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.

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

Total College Residency Hrs: 12 minimum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2017 - 2018 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.