


















## 2024 - 2025 Major Map



### Chemistry (Environmental Chemistry), BS



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




Term 1 0 - 15 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 117: General Chemistry for Majors I (SCIT OR SQ) AND  CHM 111: General Chemistry Laboratory for Majors I (SCIT OR SQ) OR CHM 113: General Chemistry I (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> <li>ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students.</li> <li>Select your <b>Career Interest Areas</b> and play <b>me3@ASU</b>.</li> <li>CHM 117 and CHM 111 are introductory courses created specifically for students in the Biochemistry or Chemistry majors. Students are strongly encouraged to select these course options.</li> </ul>
 MAT 270: Calculus with Analytic Geometry I (MATH OR MA) OR MAT 265: Calculus for Engineers I (MATH OR MA)	4-3	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	
LIA 101: Student Success in The College of Liberal Arts and Sciences	1		
Social and Behavioral Sciences (SOBE)	3		
Term hours subtotal:	15-14		
Term 2 15 - 30 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 118: General Chemistry for Majors II (SCIT OR SQ) AND  CHM 112: General Chemistry Laboratory for Majors II (SCIT OR SQ) OR CHM 116: General Chemistry II (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> <li>Connect with a career advisor by registering for a <b>Handshake</b> account.</li> <li>CHM 118 and CHM 112 are introductory courses created specifically for students in the Biochemistry or Chemistry majors. Students are strongly encouraged to select these course options.</li> </ul>
 MAT 271: Calculus with Analytic Geometry II (MATH OR MA) OR MAT 266: Calculus for Engineers II (MATH OR MA)	4-3	C	
 PHY 121: University Physics I: Mechanics (SCIT OR SQ)	3	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	
PHY 122: University Physics Laboratory I (SCIT OR SQ)	1	C	
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	15-14		
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"> <li>Create a first draft <b>resume</b>.</li> </ul>
 CHM 237: General Organic Chemistry Laboratory I	1	C	
 PHY 131: University Physics II: Electricity and Magnetism (SCIT OR SQ)	3	C	
MAT 272: Calculus with Analytic Geometry III (MATH OR MA) OR MAT 267: Calculus for Engineers III (MATH OR MA)	4-3	C	
PHY 132: University Physics Laboratory II (SCIT OR SQ)	1	C	
Humanities, Arts and Design (HUAD)	3		
 Complete First-Year Composition requirement.			
Complete Mathematics (MATH) requirement.			



Term hours subtotal: 15-14

Term 4 45 - 60 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 CHM 240: Mathematical Methods in Chemistry (QTRS OR CS)	3	C	<ul style="list-style-type: none"> <li>CHM 240 is only offered in the Spring semester.</li> <li>Transfer students who cannot take a CHM 240 equivalent course should take MAT 274 or MAT 275 (Differential Equations) and MAT 242 (Linear Algebra) in place of the five credit hours of electives in Term 4. These courses will allow the student to meet Term 4 critical tracking and the prerequisites for CHM 345 in Term 5. If these math courses are taken in place of CHM 240, students will need to take an additional UD BCH/CHM Elective to substitute the CHM 240 major requirement; discuss options with a major advisor.</li> </ul>
CHM 234: General Organic Chemistry II	3	C	
CHM 238: General Organic Chemistry Laboratory II	1	C	
Governance and Civic Engagement (CIVI)	3		
Complete 2 courses:	5		
Elective			
Term hours subtotal:	15		

Term 5 60 - 76 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 CHM 302: Environmental Chemistry	3	C	<ul style="list-style-type: none"> <li>CHM 302, CHM 345, and CHM 348 are only offered in the Fall semester.</li> </ul>
CHM 345: Physical Chemistry I	3	C	
CHM 348: Physical Chemistry Laboratory I (L)	1	C	
Science and Society Elective	3	C	
Humanities, Arts and Design (HUAD)	3		
Upper Division Elective	3		
Term hours subtotal:	16		

Term 6 76 - 91 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 BCH 361: Advanced Principles of Biochemistry	3	C	<ul style="list-style-type: none"> <li>CHM 303 is only offered in the Spring semester.</li> <li>Explore <a href="#">internship</a> opportunities.</li> </ul>
BCH 367: Elementary Biochemistry Laboratory	1	C	
CHM 303: Environmental Chemistry Laboratory (L)	2	C	
American Institutions (AMIT)	3		
Complete 2 courses:	6		
Upper Division Elective			
Term hours subtotal:	15		

Term 7 91 - 107 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 CHM 325: Analytical Chemistry	3	C	<ul style="list-style-type: none"> <li>CHM 326 is only offered in the Fall semester and must be taken on the Tempe campus.</li> <li>GLG 321 is only offered in the Fall semester.</li> <li>Apply for <a href="#">full-time career opportunities</a>.</li> </ul>
 GLG 321: Mineralogy	3	C	
CHM 326: Advanced Analytical Chemistry Laboratory	1	C	
Global Communities, Societies and Individuals (GCSI)	3		
Sustainability (SUST)	3		
Upper Division Elective OR CHM 484: Internship	3		
Term hours subtotal:	16		

Term 8 107 - 120 Credit Hours <b>Necessary course signified by</b> 	Hours	Minimum Grade	Notes
 CHM 481: Geochemistry	3	C	
Upper Division Science and Society Elective	3	C	
Complete 2 courses:	7		
Upper Division Elective			

- All students pursuing a BS or BSP degree in The College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at <https://thecollege.asu.edu/resources/science-society>. At least one of the two courses must be upper-division and students must earn a C or better in the courses. Both Science and Society courses (i.e., all six credits) may count towards any major, minor, related fields, and ASU General Studies requirements.

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.