

MAJOR MAP FOR BACHELOR OF ARTS IN CHEMISTRY CONCENTRATION IN BIOCHEMISTRY (CHEMBA-BIOC)  
2015-16 THROUGH 2026-27 CATALOG YEARS

Name: \_\_\_\_\_ ID Number: \_\_\_\_\_ Date: \_\_\_\_\_ Anticipated Graduation Semester: \_\_\_\_\_

CHEMBA-BIOC Degree Snapshot

Advising Notes

University or College Requirements

**Overall Academic Progress** (120 total Hrs required):

\_\_\_\_\_ Eligible Units in Progress (In Progress Unused Registrations: \_\_\_\_\_)  
\_\_\_\_\_ Units Satisfying + \_\_\_\_\_ Units Remaining = 120 Units Minimum (Does not include In Progress or Ineligible units)  
[Additional courses may be required to complete chosen major(s)/minor(s).]

\_\_\_\_\_ **Cumulative GPA-** UofA courses only, 2.0 minimum

\_\_\_\_\_ **Upper-Level Enrollment Requirement-** 30-hrs 30000+ at UofA. (Units remaining after in-progress)

\_\_\_\_\_ **Major Residency Rule-** 15 hrs CHEM courses in residence. (Units remaining after in-progress)

\_\_\_\_\_ **Fulbright College 40-hour rule-** 40-hrs 30000+ or 20000+ w/ prereq (Units remaining after in-progress)

State Minimum Core Requirements

University Core in English Composition I (0-3 hrs)

\_\_\_\_\_ ENGL 10103/101H3 Composition I or exemption \_\_\_\_\_

University Core in English Composition II (0-3 hrs)

\_\_\_\_\_ ENGL 10203/102H3 Composition II or exemption \_\_\_\_\_

University Core in Mathematics (3 hrs possible overlap with **Calculus I or Survey of Calculus**)

\_\_\_\_\_ MATH 11003 College Algebra or MATH 11103 Quantitative Reasoning (or higher MATH) \_\_\_\_\_

University Core in Science (8 hrs possible overlap with multiple requirements in the major. Requirements will be marked with \*\*)

\_\_\_\_\_ Science w/ lab \_\_\_\_\_

\_\_\_\_\_ Science w/ lab \_\_\_\_\_

University Core in US History or Government (3 hrs)

\_\_\_\_\_ US HIST/PLSC \_\_\_\_\_

University Core in Fine Arts (3 hrs)

\_\_\_\_\_ Fine Art \_\_\_\_\_

University Core in Humanities (3 hrs)

\_\_\_\_\_ Humanities \_\_\_\_\_

University Core in Social Sciences (9 hrs)

\_\_\_\_\_ Social Science \_\_\_\_\_

\_\_\_\_\_ Social Science \_\_\_\_\_

\_\_\_\_\_ Social Science \_\_\_\_\_

**Degree Requirements continued on Page 2 with Major Requirements**

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**Major Requirements**

**World Language Intermediate I Level or Higher (3-9 hrs)**

\_\_\_\_\_ Language \_\_\_\_\_ 10103 (or fluency)  
 \_\_\_\_\_ Language \_\_\_\_\_ 10203 (or fluency)  
 \_\_\_\_\_ **Language \_\_\_\_\_ 20103 (or higher required)**

**Chemistry for Majors I (4 hrs) \*\***

Choose 1:  
 \_\_\_\_\_ CHEM 12073/12071 Chemistry for Majors I  
 \_\_\_\_\_ CHEM 14103/14101 University Chemistry I

**Chemistry for Majors II (4 hrs) \*\***

Choose 1:  
 \_\_\_\_\_ CHEM 12283/12281 Chemistry for Majors II  
 \_\_\_\_\_ CHEM 14203/14201 University Chemistry II

**Analytical Chemistry (4 hrs)**

\_\_\_\_\_ CHEM 22673/22671 Analytical Chemistry

**Organic Chemistry I (4-5 hrs)**

Choose 1:  
 \_\_\_\_\_ CHEM 37073/37072 Organic Chemistry for Majors I  
 \_\_\_\_\_ CHEM 36053/36051 Organic Chemistry I

**Organic Chemistry II (3 hrs)**

Choose 1:  
 \_\_\_\_\_ CHEM 37203/37203 Organic Chemistry for Majors II  
 \_\_\_\_\_ CHEM 36203/36203 Organic Chemistry II

**Elements of Physical Chemistry or Physical Chemistry I & II (4-10 hrs)**

Choose 1:  
 \_\_\_\_\_ CHEM 34603/34601 Elements of Physical Chemistry  
Or:  
 \_\_\_\_\_ CHEM 35004 Physical Chemistry I AND  
 \_\_\_\_\_ CHEM 35204/35102 Physical Chemistry II

**Biochemical Techniques or Independent Research (3 hrs)**

Choose 1:  
 \_\_\_\_\_ CHEM 48503 Biochemical Techniques

Or (3 semester s of independent research):

\_\_\_\_\_ CHEM 4000V/400HV  
 \_\_\_\_\_ CHEM 4000V/400HV  
 \_\_\_\_\_ CHEM 4000V/400HV

**Biochemistry Requirements for CHEMBA-Biochem (6-7 hrs)**

Choose 1 sequence:  
 \_\_\_\_\_ CHEM 38103 Elements of Biochemistry  
 \_\_\_\_\_ CHEM 42203/42101 Instrumental Analysis

Or:

\_\_\_\_\_ CHEM 38103 Elements of Biochemistry  
 \_\_\_\_\_ CHEM 41203 Advanced Inorganic Chemistry

Or:

\_\_\_\_\_ CHEM 38103 Elements of Biochemistry  
 \_\_\_\_\_ CHEM 47203 Experimental Methods in Organic Chemistry

Or:

\_\_\_\_\_ CHEM 481H3 Honors Biochemistry I  
 \_\_\_\_\_ CHEM 484H3 Honors Biochemistry II

Or:

\_\_\_\_\_ CHEM 58103 Biochemistry I  
 \_\_\_\_\_ CHEM 58403 Biochemistry II

**Physics I (4 hrs)\*\***

Choose 1:  
 \_\_\_\_\_ PHYS 20103/20101 College Physics I  
 \_\_\_\_\_ PHYS 20304 University Physics I

**Physics II (4 hrs) \*\***

Choose 1:  
 \_\_\_\_\_ PHYS 20303/20301 College Physics II  
 \_\_\_\_\_ PHYS 20404 University Physics II

**Calculus I or Survey of Calculus (3-4 hrs)**

Choose 1:  
 \_\_\_\_\_ MATH 22003 Survey of Calculus  
 \_\_\_\_\_ MATH 24004 Calculus I

**BIOL 30000+ Elective for CHEM (3 hrs)**

\_\_\_\_\_ BIOL 30000+ \_\_\_\_\_

**BIOL Electives for CHEM (3 courses, 8 hrs minimum)**

\_\_\_\_\_ BIOL \_\_\_\_\_  
 \_\_\_\_\_ BIOL \_\_\_\_\_  
 \_\_\_\_\_ BIOL \_\_\_\_\_

**General Electives (9-44 hrs.** Hours vary based on how much overlap students choose between major and core requirements. If required UNIV 10051 University Perspectives counts here.)

# MAJOR MAP FOR BACHELOR OF ARTS IN CHEMISTRY CONCENTRATION IN BIOCHEMISTRY (CHEMBA-BIOC) 2015-16 THROUGH 2026-27 CATALOG YEARS

## Graduation Plan

Use the following additional resources in addition to this major map to complete your graduation plan ([Catalog](#) and your [Academic Progress Tab](#) in Workday Student). Many students have more than one major minor or pre-professional goal that has additional required classes. This tool allows you to combine all your educational goals into one plan.

| High School credit | List all Advanced Placement International Baccalaureate Dual or Concurrent credit |        |        |                                                                 |
|--------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------|
| Year               | Fall                                                                              | Spring | Summer | Total                                                           |
| Year 1             |                                                                                   |        |        | Total 1 <sup>st</sup> year credit hours (aim for 30):           |
| Year 2             |                                                                                   |        |        | Total 2 <sup>nd</sup> year credit hours (aim for 60):           |
| Year 3             |                                                                                   |        |        | Total 3 <sup>rd</sup> year credit hours (aim for 90):           |
| Year 4             |                                                                                   |        |        | Total 4 <sup>th</sup> year credit hours (Must be at least 120): |

Please visit <https://catalog.uark.edu/undergraduatecatalog> for an extensive list of core major graduation and pre-requisite requirements. To read more about individual classes visit the [courses of instruction](#) page for course descriptions.

# MAJOR MAP FOR BACHELOR OF ARTS IN CHEMISTRY CONCENTRATION IN BIOCHEMISTRY (CHEMBA-BIOC) 2015-16 THROUGH 2026-27 CATALOG YEARS

## Degree Requirement Breakdown by Category

The following information is designed to help you navigate your experience in your degree and answer common questions that may come up for each requirement. All requirements for graduation are documented on the [Catalog of Studies](#).

| <a href="#">University or College Requirements</a>                       |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| Academic Requirement Name                                                | Catalog Requirement                                                                                                                                                                    | Additional Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Overall Academic Progress</b>                                         | <ul style="list-style-type: none"> <li>Overall Academic Progress: 120 graduation eligible hours required</li> </ul>                                                                    | <ul style="list-style-type: none"> <li><a href="#">Overall Academic Progress</a>: Students must earn a minimum of 120 credit hours. The total number of hours required to complete specific major and minor combinations may vary beyond 120 hours.</li> <li>Graduation Eligible Hours: The following classes are not eligible for degree credit- ENGL 00001 ENGL 00101 MATH 00101 MATH 00202 MATH 01101 any duplicate credit where a course is not listed as repeatable in the catalog. These classes may show up in Workday Student as in-progress hours, but they will not post as units satisfying Overall Academic Progress when grades post.</li> </ul> |
| <b>Cumulative GPA</b>                                                    | <ul style="list-style-type: none"> <li>GPA: must be 2.0 or higher</li> </ul>                                                                                                           | <ul style="list-style-type: none"> <li><a href="#">GPA</a>: Students must maintain a 2.0 Grade Point Average (GPA) to remain in good standing and be eligible for graduation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Upper-Level Enrollment Requirement</b>                                | <ul style="list-style-type: none"> <li>Upper-Level Enrollment Requirement: minimum 30 hours 30000+ taken in residence</li> </ul>                                                       | <ul style="list-style-type: none"> <li><a href="#">Upper-Level Enrollment Requirement</a> (30-hr rule): Students are required to take at least 30 credit hours of upper-level (30000+) courses in residence. This includes UA faculty-led study abroad classes online/on-campus classes and courses offered through the Global Campus; and all other courses paid toward Fayetteville campus tuition and fees.</li> </ul>                                                                                                                                                                                                                                     |
| <b>CHEMBA Residency Rule</b>                                             | <ul style="list-style-type: none"> <li>CHEMBA Residency Rule: minimum 15 hours CHEM courses taken in residence</li> </ul>                                                              | <ul style="list-style-type: none"> <li><a href="#">Residency Rule</a>: Students must take at least 50% of their program (i.e. major or minor) requirements in residence. For programs that require classes from other departments this rule is defined only by required classes from the program's home department.</li> </ul>                                                                                                                                                                                                                                                                                                                                |
| <b>Fulbright College 40-Hour Rule</b>                                    | <ul style="list-style-type: none"> <li>Fulbright College 40-hour rule: minimum 40 hours upper-level. Includes all 30000+ courses and 20000+ if the course has prerequisite.</li> </ul> | <ul style="list-style-type: none"> <li><a href="#">Fulbright College 40-hour rule</a>: Students must take at least 40 credit hours of upper-level courses. This includes courses numbered 30000 level or above or 20000 level courses if the course has a prerequisite. It is not limited to courses taken in residence.</li> </ul>                                                                                                                                                                                                                                                                                                                           |
| <a href="#">State Minimum Core Requirements</a>                          |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <a href="#">University Core in English Composition I</a><br><br>0-3 hrs  | <ul style="list-style-type: none"> <li>ENGL 10103/101H3 Composition I or SAT/ACT exemption</li> </ul>                                                                                  | See <a href="#">Catalog</a> for information about placement and/or exemption.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <a href="#">University Core in English Composition II</a><br><br>0-3 hrs | ENGL 10203/102H3 Composition II or SAT/ACT exemption                                                                                                                                   | See <a href="#">Catalog</a> for information about placement and/or exemption.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| <p><u>University Core in Mathematics</u></p> <p><b>3 hrs</b></p> | <p>Choose 1:</p> <ul style="list-style-type: none"> <li>• MATH 11003 College Algebra</li> <li>• MATH 11103 Quantitative Reasoning</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Based on ACT/SAT or other math placement scores students may need to enroll in additional remediation related courses. See <a href="#">catalog</a> or <a href="#">math placement</a> website for additional information.</p> |
| <p><u>University Core in Science</u></p> <p><b>8 hrs</b></p>     | <p>Choose 2: (each class will have a required lecture and lab component):</p> <ul style="list-style-type: none"> <li>• ANTH 10143/ANTH 10141 Intro to Biological Anthropology (or ANTH 101H3/101H1)</li> <li>• ASTR 20003/20001 Survey of the Universe (or ASTR 200H3/200H1)</li> <li>• BIOL 10004 Biological Principles</li> <li>• BIOL 10103/10101 Principles of Biology (or BIOL 154H3/154H1)</li> <li>• BIOL 10104 Biology for Majors</li> <li>• BIOL 10303/10301 Plant Biology</li> <li>• BIOL 10503/10501 Principles of Zoology</li> <li>• BIOL 24003/24001 Human Anatomy</li> <li>• BIOL 24103/24101 Human Physiology</li> <li>• CHEM 10003/10001 Chemistry in the Modern World</li> <li>• CHEM 12103/12101 Fundamentals of Chemistry</li> <li>• CHEM 12073/12071 Chemistry for Majors I</li> <li>• CHEM 12283/12281 Chemistry for Majors II</li> <li>• CHEM 14103/14101 University Chemistry I</li> <li>• CHEM 14203/14201 University Chemistry II (or CHEM 142H3/142H1)</li> <li>• ENSC 10003/10001 Environmental Science (or ENSC 100H3/100H1)</li> <li>• ENTO 10203/10201 Insects Science and Society</li> <li>• GEOL 11103/11101 Physical Geology (or GEOL 111H3/111H1)</li> <li>• GEOL 11203/11201 Earth Science</li> <li>• GEOS 11504 Introduction to Geology for Science Majors</li> <li>• PHYS 10243/10241 Physics and Human Affairs (or PHYS 102H3/102H1)</li> <li>• PHYS 10304 Physics for Elementary Education Majors</li> <li>• PHYS 10404 Physics for Architects I</li> <li>• PHYS 10504 Physics for Architects II</li> <li>• PHYS 20103/20101 College Physics I</li> <li>• PHYS 20203/20201 College Physics II</li> </ul> | <p>Some classes will have pre-requisites</p>                                                                                                                                                                                    |

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|                                                                                        | <ul style="list-style-type: none"> <li>• PHYS 20304 University Physics I (or PHYS 203H4)</li> <li>• PHYS 20404 University Physics II (or PHYS 204H4)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                            |
| <a href="#"><u>University Core in US History or Government</u></a><br><br><b>3 hrs</b> | Choose 1: * <ul style="list-style-type: none"> <li>• HIST 20003 History of the American People to 1877</li> <li>• HIST 20103 History of the American People 1877 to Present</li> <li>• PLSC 20003 American National Government (or PLSC 200H3)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | *Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories. |
| <a href="#"><u>University Core in Fine Arts</u></a><br><br><b>3 hrs</b>                | Choose 1: * <ul style="list-style-type: none"> <li>• ARCH 10003 Architecture Lecture (or ARCH 100H3)</li> <li>• ARHS 10003 Art Lecture (or ARHS 100H3)</li> <li>• COMM 10003 Film Lecture (or COMM 100H3)</li> <li>• DANC 10003 Dance Appreciation</li> <li>• ENGL 20103 Creative Writing 1</li> <li>• HUMN 211H4 Honors Birth of Modern Culture 1600-1900 (honors only)</li> <li>• LARC 10003 The American Landscape (or LARC 100H3)</li> <li>• MUSC 10003 Experiencing Music (or MUSC 100H3)</li> <li>• MLIT 10103 Music and Society (music majors only. Or MLIT 101H3)</li> <li>• MLIT 13303 Popular Music</li> <li>• THTR 10003 Theatre Appreciation (or THTR 100H3)</li> <li>• THTR 10103 Musical Theatre Appreciation (or THTR 101H3)</li> <li>• THTR 16803 Acting I</li> <li>• THTR 18803 Acting 1 for Theatre majors</li> </ul> | *Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories. |
| <a href="#"><u>University Core in Humanities</u></a><br><br><b>3 hrs</b>               | Choose 1: * <ul style="list-style-type: none"> <li>• AAST 20203 The African American Experience</li> <li>• ANTH 10303 Introduction to Archeology</li> <li>• ARCH 10103 Diversity and Design (or ARCH 101H3)</li> <li>• CLST 10003 Introduction to Classical Studies: Greece (or CLST 100H3)</li> <li>• CLST 10103 Introduction to Classical Studies: Rome (or CLST 101H3)</li> <li>• COMM 12303 Media Community and Citizenship (or COMM 123H3)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                              | *Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories. |

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|                                                                 | <ul style="list-style-type: none"> <li>• DANC 10003 Dance Appreciation</li> <li>• DASC 21303 Data Privacy &amp; Ethics</li> <li>• ENGL 11103 World Literature: Beginnings to 1650 CE (or ENGL 111H3)</li> <li>• ENGL 11203 World Literature: 1650 CE to Present (or ENGL 112H3)</li> <li>• ENGL 12103 Introduction to Literature (or ENGL 121H3)</li> <li>• ENGL 20103 Creative Writing I</li> <li>• GNST 20003 Introduction to Gender Studies (or GNST 200H3)</li> <li>• HUMN 112H4 Honors Equilibrium of Cultures 500-1600 (Honors only)</li> <li>• HUMN 22103 Introduction to World Religions</li> <li>• LALS 20103 Introduction to Latin American and Latino Studies</li> <li>• MRST 20103 Introduction to Medieval and Renaissance Studies</li> <li>• MUSY 20003 Music in World Cultures (or MUSY 200H3)</li> <li>• PHIL 20003 Introduction to Philosophy (or PHIL 200H3)</li> <li>• PHIL 21003 Introduction to Ethics</li> <li>• PHIL 22003 Logic</li> <li>• PHIL 23003 Human Nature and the Meaning of Life</li> <li>• PHIL 31003 Ethics and the Professions</li> <li>• THTR 10003 Theatre Appreciation (or THTR 100H3)</li> <li>• THTR 10103 Musical Theatre Appreciation (or THTR 101H3)</li> <li>• Any Intermediate level world language numbered at the 20000 level</li> </ul> |                                                                                                                                                                                                                             |
| <a href="#">University Core in Social Sciences</a><br><br>9 hrs | Choose 3: * <ul style="list-style-type: none"> <li>• AGECE 11003 Principles of Agriculture Microeconomics (or AGECE 110H3)</li> <li>• AGECE 21003 Principles of Agriculture Macroeconomics (or AGECE 210H3)</li> <li>• ANTH 10203 Intro to Cultural Anthropology (or ANTH 102H3)</li> <li>• COMM 10203 Communication in a Diverse World (or ANTH 102H3)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Students must take classes from at least two departments.<br><br>*Some courses may appear as options in multiple areas of the State Minimum Core. You can only count each course one time in State Minimum Core categories. |

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- ECON 21003 Principles of Macroeconomics (or ECON 210H3)
- ECON 22003 Principles of Microeconomics (or ECON 220H3)
- ECON 21403 Basic Economics: Theory and Practice (or ECON 214H3)
- GEOG 11103 Human Geography (or GEOG 111H3)
- GEOG 21003 World Regional Geography (or GEOG 210H3)
- HDFS 14003 Life Span Development (HDFS 140H3)
- HDFS 24103 Family Relations (or HDFS 241H3)
- HDFS 26003 Rural Families & Communities (HDFS 260H3)
- HIST 11193 Institutions and Ideas of World Civilizations I (or HIST 111H3)
- HIST 11293 Institutions and Ideas of World Civilizations II (or HIST 112H3)
- HIST 20003 History of the American People to 1877
- HIST 20103 History of the American People 1877 to Present
- HIST 20903 Animals in World History
- HUMN 111H4 Honors Roots of Culture to 500 C.E. (Honors only)
- HUMN 211H4 Honors Birth of Modern Culture 1600-1900 (honors only)
- INST 20103 Introduction to International and Global Studies
- INST 211H4 Honors Pathways to Global and Social Change
- JOUR 10203 Media and Society
- PLSC 20003 American National Government (or PLSC 200H3)
- PLSC 20103 Intro to Comparative Politics
- PLSC 21003 State and Local Government
- PLSC 28103 Intro to International Relations (or PLSC 281H3)
- PSYC 20003 General Psychology (or PSYC 200H3)
- RESM 28503 Leisure and Society (or RESM 285H3)



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|                                                                | <ul style="list-style-type: none"> <li>• SOCI 10103 General Sociology (or SOCI 201H3)</li> <li>• SOCI 20103 Social Problems</li> <li>• STEM 20003 The Art of STEM Communication</li> </ul>                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                          |
| <b>Major Requirements</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                          |
| <b><u>MAJOR LANGUAGE REQUIREMENT</u></b><br><br><b>3-9 hrs</b> | <b>Get to the Intermediate I (20103) level or higher of a world language:</b><br><br>This may be completed by taking only the 20103 level, <u>if the student has previous fluency</u> , but is most commonly completed by taking three classes (ARAB and CHIN both also offer intensive formats for accelerated study): <ul style="list-style-type: none"> <li>• Elementary I (10103)</li> <li>• Elementary II (10203)</li> <li>• Intermediate I (20103)</li> </ul> | <b>Language Options:</b> See the <a href="#">catalog</a> for complete list<br><br><b>Language Placement:</b> See the WLLC website for a list of available <a href="#">placement exams</a> for certain languages as well as information about <a href="#">credit by exam</a> for Spanish. |
| <b><u>Chemistry for Majors I</u></b><br><br><b>4 hrs</b>       | <b>Choose 1:</b> <ul style="list-style-type: none"> <li>• CHEM 12073/12071 Chemistry for Majors I (Fall only. Pre-req: MATH 11003 or higher or math placement)</li> <li>• CHEM 14103/14101 University Chemistry I (Pre-req: MATH 11003 or math placement)</li> </ul>                                                                                                                                                                                                | <b>Prerequisites for CHEM courses may vary based on math placement. See <a href="#">catalog</a> for more information.</b><br><br>Students cannot receive degree credit for both CHEM 12073 and 14103.<br><br>While University Chemistry is accepted, Chemistry for Majors is Preferred   |
| <b><u>Chemistry for Majors II</u></b><br><br><b>4 hrs</b>      | <b>Choose 1:</b> <ul style="list-style-type: none"> <li>• CHEM 12283/12281 Chemistry for Majors II (Spring only. Pre- or Co-req: MATH 13004 or higher. Pre-req: CHEM 12073/12071 or CHEM 14103/14101)</li> <li>• CHEM 14203/14201 University Chemistry II (pre-req: CHEM 14103/14101)</li> </ul>                                                                                                                                                                    | Students cannot receive degree credit for both CHEM 12283 and CHEM 14203.<br><br>While University Chemistry is accepted, Chemistry for Majors is Preferred                                                                                                                               |
| <b><u>Analytical Chemistry</u></b><br><br><b>4 hrs</b>         | CHEM 22673/22671 Analytical Chemistry (Pre-req: CHEM 14203/14201 or CHEM 12283/12281. MATH 11003 or higher or math placement see <a href="#">course</a> description.                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                          |
| <b><u>Organic Chemistry I</u></b><br><br><b>4-5 hrs</b>        | <b>Choose 1:</b> <ul style="list-style-type: none"> <li>• CHEM 37073/37072 Organic Chemistry for Majors I (Fall only. Pre-req: CHEM 14203/14201 or CHEM 12883/12283)</li> </ul>                                                                                                                                                                                                                                                                                     | CHEM 360H3/360H2 also counts here                                                                                                                                                                                                                                                        |

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|                                                                                                        | <ul style="list-style-type: none"> <li>CHEM 36053/36051 Organic Chemistry I (Fall and Summer only. Pre-req: CHEM 14203/14201 or CHEM 12883/12283)</li> </ul>                                                                                                                                                                                        |                                                                                                 |
| <a href="#">Organic Chemistry II</a><br><br><b>4-5 hrs</b>                                             | <u>Choose 1:</u> <ul style="list-style-type: none"> <li>CHEM 37203/37203 Organic Chemistry for Majors II (Spring only. Pre-req: CHEM 37073/37072 and CHEM major or minor)</li> <li>CHEM 36203/36203 Organic Chemistry II (Spring and Summer only. Pre-req: CHEM 36053/36051 or CHEM 37073/37072)</li> </ul>                                         | CHEM 362H3/362H2 also counts here                                                               |
| <a href="#">Elements of Physical Chemistry or Physical Chemistry I &amp; II</a><br><br><b>4-10 hrs</b> | <u>Choose 1:</u><br>CHEM 34603/34601 Elements of Physical Chemistry (Fall only. Pre-req: CHEM 22673. PHYS 20203 or 20404. MATH 24004 or 22003.)<br><br><u>Or:</u><br>CHEM 35004 Physical Chemistry I (Fall only. Pre-req: CHEM 22673 and PHYS 20404)<br><br><b>AND</b><br>CHEM 35204/35102 Physical Chemistry II (Spring only. Pre-req: CHEM 35004) |                                                                                                 |
| <a href="#">Biochemical Techniques or Independent Research</a><br><br><b>3 hrs</b>                     | <u>Choose 1:</u> <ul style="list-style-type: none"> <li>CHEM 48503 Biochemical Techniques (Spring only. Pre-req: CHEM 38103 or 484H3)</li> <li>Completion of a senior thesis based on independent research wherein at least 1 hour of CHEM 4000V (or CHEM 400HV) is earned during three different semesters.</li> </ul>                             |                                                                                                 |
| <a href="#">Biochemistry for CHEMBS</a><br><br><b>6 hrs</b>                                            | <u>Choose 1 sequence:</u> <ul style="list-style-type: none"> <li>CHEM 38103 Elements of Biochemistry (Pre-req: CHEM 36203/36201 or CHEM 37203/37202 or CHEM 26103/26101)</li> <li>CHEM 42203/42101 Instrumental Analysis (Pre-req: CHEM 22673/22671. CHEM 36203/36201 or 37203/37202)</li> </ul><br><u>Or:</u>                                      | Students cannot receive credit for both Elements of Biochemistry and Honors Biochemistry I & II |

# MAJOR MAP FOR BACHELOR OF ARTS IN CHEMISTRY CONCENTRATION IN BIOCHEMISTRY (CHEMBA-BIOC) 2015-16 THROUGH 2026-27 CATALOG YEARS

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                        |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
|                                                  | <ul style="list-style-type: none"> <li>• CHEM 38103 Elements of Biochemistry<br/>(Pre-req: CHEM 36203/36201 or CHEM 37203/37202 or CHEM 26103/26101)</li> <li>• CHEM 41203 Advanced Inorganic Chemistry<br/>(Fall only. Pre-req: CHEM 34603 or 35204)</li> </ul> <p><b>Or:</b></p> <ul style="list-style-type: none"> <li>• CHEM 38103 Elements of Biochemistry<br/>(Pre-req: CHEM 36203/36201 or CHEM 37203/37202 or CHEM 26103/26101)</li> <li>• CHEM 47203 Experimental Methods in Organic Chemistry<br/>(Fall only. Pre-req: CHEM 36203/36201 or CHEM 37203/37202)</li> </ul> <p><b>Or:</b></p> <ul style="list-style-type: none"> <li>• CHEM 481H3 Honors Biochemistry<br/>(Fall only. Pre-req: Honors and CHEM 36203/36201 or CHEM 37203/37202)</li> <li>• CHEM 484H3 Honors Biochemistry II<br/>(Spring only. Pre-req: Honors and CHEM 481H3)</li> </ul> <p><b>Or:</b></p> <ul style="list-style-type: none"> <li>• CHEM 58103 Biochemistry I<br/>(Fall only. Pre-req: instructor consent through out of career form)</li> <li>• CHEM 58403 Biochemistry II<br/>(Spring only. Pre-req: instructor consent through out of career form)</li> </ul> |                                                        |
| <a href="#">Physics I</a><br><br>4 hrs           | <u>Choose 1:</u> <ul style="list-style-type: none"> <li>• PHYS 20103/20101 College Physics I<br/>(Pre-req: PHYS 20103/20101)</li> <li>• PHYS 20304 University Physics I<br/>(Pre-req: MATH 24004)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                        |
| <a href="#">Physics II</a><br><br>4 hrs          | <u>Choose 1:</u> <ul style="list-style-type: none"> <li>• PHYS 20203/20201 College Physics II<br/>(Pre-req: PHYS 20103/20101)</li> <li>• PHYS 20404 University Physics II<br/>(Pre-req: PHYS 20304 and MATH 25004)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                        |
| <a href="#">Calculus I or Survey of Calculus</a> | <u>Choose 1:</u> <ul style="list-style-type: none"> <li>• MATH 22003 Survey of Calculus</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MATH 24005 Calculus I with Review may also count here. |

# MAJOR MAP FOR BACHELOR OF ARTS IN CHEMISTRY CONCENTRATION IN BIOCHEMISTRY (CHEMBA-BIOC) 2015-16 THROUGH 2026-27 CATALOG YEARS

|                                                                           |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3-4 hrs</b>                                                            | <p>(Possible pre-req: MATH 11003 or math Placement)</p> <ul style="list-style-type: none"> <li>MATH 24004 Calculus I<br/>(Possible Pre-req: MATH 11003 with a C or higher and MATH 12003 or 13004 with a C or higher or Math placement)</li> </ul>                                                                                        | Prerequisites for MATH and STAT courses may vary based on math placement. See <a href="#">catalog</a> and <a href="#">placement chart</a> for more information.                                                                                                                                                                                                                                                                                                                                                                                |
| <b><a href="#">BIOL 30000+ Elective for CHEM</a></b><br><b>3 hrs</b>      | Take 3 credit hours of BIOL courses numbered 30000 level or higher                                                                                                                                                                                                                                                                        | <b><a href="#">BIOL</a> prerequisites vary by class choice.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b><a href="#">BIOL Electives for CHEM</a></b><br><b>3 courses, 8 hrs</b> | Take 3 additional BIOL courses. Hours for individual courses may vary but must be at least 8 credit hours                                                                                                                                                                                                                                 | <b><a href="#">BIOL</a> prerequisites vary by class choice.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b><a href="#">General Electives</a></b><br><b>9-44 hrs</b>               | Hours will vary depending on concentration choice, possible overlap in major, and whether a student is exempt from ENGL 10103, ENGL 10203, and UNIV 10051.*                                                                                                                                                                               | <p>Some general electives may need to be upper-level to meet college and university residency requirements.</p> <p>* UNIV 10051 (or an equivalent course) is required for all incoming freshmen. Some students may have taken one of the following courses instead: AFLS 102H3, BUSI/WCOB 11101, BUSI/WCOB 111H1, GNEG 11101, GNEG 111H1, HIST 1003(H), HIST 10001, HIST 100H1, PLSC 10003, PLSC 100H3, STEM 12001. Students who transfer to the University of Arkansas with at least 24 credit hours are not required to take UNIV 10051.</p> |
| <b><a href="#">Honors</a></b>                                             | <p><b><u>Minimum Requirements for Honors:</u></b></p> <ul style="list-style-type: none"> <li>Maintain cumulative grade point average of 3.5.</li> <li>Complete Honors <a href="#">Capstone Project</a></li> <li>Complete all required Honors Courses</li> </ul> <p>See <a href="#">Catalog</a> for full description of requirements.*</p> | <p><b>Honors Capstone Project Timeline:</b> Honors students should consistently work with their academic advisor and thesis advisor to ensure they stay on track with their honors requirements, but can consult the <a href="#">Fulbright Honors</a> SharePoint for important dates.</p> <p>* Students following honors requirements from a catalog earlier than 2025-26 should consult with their academic advisor to confirm requirements.</p>                                                                                              |