

MAJOR MAP FOR BACHELOR OF ARTS IN CHEMISTRY CONCENTRATION IN CHEMISTRY (CHEMBA-CHEM) 2015-16 THROUGH 2024-25 CATALOG YEARS

Name: _____ ID Number: _____ Date: _____ Anticipated Graduation Semester: _____
CHEMBA-CHEM Degree Snapshot

University Perspectives (0-1 hr)

_____ UNIV 10051, University Perspectives or exemption

State Core English Composition (0-6 hrs)

_____ ENGL 10103, Composition 1 or exemption

_____ ENGL 10203, Composition 2 or exemption

State Core US History or Government (3 hrs)

_____ US HIST/PLSC _____

State Core Mathematics (0 hrs)

Requirement met with courses in major.

State Core Natural Sciences w/ labs (0 hrs)

Requirement met with courses in major.

State Core Social Sciences (9 hrs)

_____ Social Science _____

_____ Social Science _____

_____ Social Science _____

State Core Fine Arts (3 hrs)

_____ Fine Art _____

State Core Humanities (3 hrs)

_____ Humanities _____

Major World Language to 20103 level (3-9 hrs)

_____ Language _____ 10103 (or fluency)

_____ Language _____ 10203 (or fluency)

_____ Language _____ 20103 (or higher required)

Mathematics (3-11 hrs)

_____ MATH 11003, College Algebra (or [math placement](#) directly in to next math)

_____ MATH 13004, Precalculus or MATH 12003, Plane Trigonometry (only required if taking MATH 2554)

_____ MATH 24004, Calculus I OR MATH 22003, Survey of Calculus (Required)

Physics (8 hrs)

_____ PHYS 20103/20101, College Physics I OR PHYS 20304, University Physics I

_____ PHYS 20203/20201, College Physics II OR PHYS 20404, University Physics II

General Chemistry (8 hrs)

_____ CHEM 12073/12071, Chemistry for Majors I OR CHEM 14103/14101, University Chemistry I

_____ CHEM 12283/12281, Chemistry for Majors II OR CHEM 14203/14201, University Chemistry II

Analytical Chemistry (4 hrs)

_____ CHEM 22673/22671, Analytical Chemistry

Organic Chemistry (8-10 hrs)

_____ CHEM 3703/3702L, Organic Chemistry for Majors I OR CHEM 3603/3601L, Organic Chemistry I

_____ CHEM 3713/3712L, Organic Chemistry for Majors II OR CHEM 3613/3611L, Organic Chemistry II

Physical Chemistry (4-10 hrs)

_____ CHEM 34603/34601, Elements of Physical Chemistry

Or:

_____ CHEM 35004, Physical Chemistry I AND

_____ CHEM 35204/35102, Physical Chemistry II

Chemistry Electives (6 hrs)

_____ CHEM 30000+ _____

_____ CHEM 30000+ _____

General Electives (29-58 hrs)

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Advising Notes

Graduation Plan

Use the following additional resources, in addition to this major map, to complete your graduation plan ([Catalog](#), and your [Degree Audit](#) in UAconnect). 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 in to one plan.

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

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Graduation Checklist (does your plan include the following):

- 2.0 minimum overall UofA GPA (Courses taken at other colleges or universities are not factored into this GPA)
- All state minimum core requirements
- All Major(s)/Minor(s) requirements
- [Writing requirement](#) complete
- At least 50% of each major/minor taken from UofA
- 24 hours of 30000+ classes exclusively from Fulbright College of Arts and Sciences classes
- 30 hours of 30000+ classes exclusively from the University of Arkansas. This can include courses taken for the 24-hour rule.
- 40 hours of upper-level classes. (30000+ or 20000+ with a pre-requisite. Can include transfer credit.) This can include courses taken for the 24-hour and 30-hour rules.
- 120 total eligible credit hours (see below for a list of ineligible classes)

Program Information:

Note about course sequencing: The Chemistry majors are pre-requisite heavy programs that are highly sequenced. Some essential classes are offered only once per year. It's highly recommended that students work with advisors to create a multi-semester graduation plan early in their degree.

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.

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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.

Category	Degree Requirements	Curriculum Notes
UNIVERSITY PERSPECTIVES 0-1 hr	<ul style="list-style-type: none"> UNIV 10051, University Perspectives (or UNIV 100H1) 	Or equivalent from another University of Arkansas college. (AFLS 102H3, ARSC 12001, GNEG 11101, GNEG 111H1, HIST 1003(H), HIST 10001, HIST 100H1, PLSC 10003, PLSC 100H3, BUSI/WCOB 11101, WCOB/BUSI 111H1) Note: students who transfer to the University of Arkansas with at least 24 credit hours will have this requirement waived.
STATE CORE COMPOSITION 0-6 hrs	<ul style="list-style-type: none"> ENGL 10103, Composition 1 or SAT/ACT exemption (or ENGL 101H3) ENGL 10203, Composition 2 or SAT/ACT exemption (or ENGL 102H3) 	See Catalog for information about placement and/or exemption.
STATE CORE US HISTORY or GOVERNMENT 3 hrs	Choose 1: * <ul style="list-style-type: none"> HIST 20003, History of the American People to 1877 HIST 20103, History of the American People 1877 to Present PLSC 20003, American National Government (or PLSC 200H3) 	*Some courses may appear as options in multiple areas of the State Core. You can only count each course 1 time in the State Core and will need unique courses in each of the content areas below.
STATE CORE MATHEMATICS 0 hrs	Met with requirements in major.	Based on ACT/SAT or other math placement scores, students may need to enroll in additional remediation related courses. See catalog or math placement website for additional information.
STATE CORE NATURAL SCIENCES CORE 0 hrs	Met with requirements in major.	
STATE CORE SOCIAL SCIENCES 9 hrs	Choose 3: * <ul style="list-style-type: none"> AGEC 11003, Principles of Agriculture Microeconomics (or AGECE 110H3) AGEC 21003, Principles of Agriculture Macroeconomics (or AGECE 210H3) ANTH 10203, Intro to Cultural Anthropology (or ANTH 102H3) COMM 10203, Communication in a Diverse World (or ANTH 102H3) 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) EDST 20003, Introduction to Educational Studies 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) 	Students must take classes from at least two departments in the Social Sciences category. *Some courses may appear as options in multiple areas of the State Core. You can only count each course 1 time in the State Core and will need unique courses in each of the content areas below.

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	<ul style="list-style-type: none"> • 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/PLSC 28103, Intro to International Relations & Global Studies (or INST/PLSC 281H3) • 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 • PSYC 20003, General Psychology (or PSYC 200H3) • RESM 28503, Leisure and Society (or RESM 285H3) • SOCI 10103, General Sociology (or SOCI 201H3) • SOCI 20103, Social Problems • STEM 20003, The Art of STEM Communication 	
<p>STATE CORE FINE ARTS</p> <p>3 hrs</p>	<p>Choose 1: *</p> <ul style="list-style-type: none"> • ARCH 10003, Architecture Lecture (or ARCH 100H3) • ARHS 10003, Art Lecture (or ARHS 100H3) • COMM 10003, Film Lecture (or COMM 100H3) • DANC 10003, Movement and Dance • ENGL 20103, Creative Writing 1 • HUMN 211H4, Honors Birth of Modern Culture 1600-1900 (honors only) • LARC 10003, The American Landscape (or LARC 100H3) • MLIT 10003, Experiencing Music (or MLIT 100H3) • MLIT 10103, Music and Society (music majors only. Or MLIT 101H3) • MLIT 13303, Popular Music • THTR 10003, Theatre Appreciation (or THTR 100H3) • THTR 10103, Musical Theatre Appreciation (or THTR 101H3) • THTR 16803, Acting I • THTR 18803, Acting 1 for Theatre majors 	<p>*Some courses may appear as options in multiple areas of the State Core. You can only count each course 1 time in the State Core and will need unique courses in each of the content areas below.</p>
<p>STATE CORE HUMANITIES</p> <p>3 hrs</p>	<p>Choose 1: *</p> <ul style="list-style-type: none"> • AAST 20203, The African American Experience • ANTH 10303, Introduction to Archeology • ARCH 10103, Diversity and Design (or ARCH 101H3) • CLST 10003, Introduction to Classical Studies: Greece (or CLST 100H3) • CLST 10103, Introduction to Classical Studies: Rome (or CLST 101H3) 	<p>*Some courses may appear as options in multiple areas of the State Core. You can only count each course 1 time in the State Core and will need unique courses in each of the content areas below.</p>

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	<ul style="list-style-type: none"> • COMM 12303, Media, Community and Citizenship (or COMM 123H3) • DANC 10003, Dance Appreciation • DASC 21303, Data Privacy & Ethics • ENGL 11103, World Literature: Beginnings to 1650 CE (or ENGL 111H3) • ENGL 11203, World Literature: 1650 CE to Present (or ENGL 112H3) • ENGL 12103, Introduction to Literature (or ENGL 121H3) • ENGL 20103, Creative Writing I • GNST 20003, Introduction to Gender Studies (or GNST 200H3) • 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 • HUMN 112H4, Honors Equilibrium of Cultures 500-1600 (Honors only) • HUMN 22103, Introduction to World Religions • LALS 20103, Introduction to Latin American and Latino Studies • MRST 20103, Introduction to Medieval and Renaissance Studies • MUSY 20003, Music in World Cultures (or MUSY 200H3) • PHIL 20003, Introduction to Philosophy (or PHIL 200H3) • PHIL 21003, Introduction to Ethics • PHIL 22003, Logic • PHIL 23003, Human Nature and the Meaning of Life • PHIL 31003, Ethics and the Professions • THTR 10003, Theatre Appreciation (or THTR 100H3) • THTR 10103, Musical Theatre Appreciation (or THTR 101H3) • Any Intermediate level foreign language numbered at the 20000 level 	
<p style="text-align: center;"><u>MAJOR LANGUAGE REQUIREMENT</u></p> <p style="text-align: center;">3-9 hrs</p>	<p>Get to the Intermediate I (20103) level or higher of a world language:</p> <p>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):</p> <ul style="list-style-type: none"> • Elementary I (10103) • Elementary II (10203) • Intermediate I (20103) 	<p>Language Options: See the catalog for complete list</p> <p>Language Placement: See the WLLC website for a list of available placement exams for certain languages as well as information about credit by exam for Spanish.</p>
<p style="text-align: center;"><u>MATHEMATICS</u></p> <p style="text-align: center;">3-11 hrs</p>	<ul style="list-style-type: none"> • MATH 11003, College Algebra (or math placement directly in to next math) • MATH 13004, Precalculus or MATH 12003, Plane Trigonometry (only required if taking MATH 24004) • MATH 24004, Calculus I (pre-req: MATH 13004, 12003, or math placement)* OR MATH 22003, Survey of Calculus 	<p>Students need to earn a C or higher in MATH classes to use them as pre-requisites for other classes.</p> <p>*MATH 24005, Calculus I with Review, may also count here.</p>

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	(Pre-req: MATH 11003, 12003, 13004, or MATH 20503 or math placement)	<p>Students should start on their math sequence as early as possible, since many of these classes will be pre-requisites for future CHEM classes.</p> <p>Choice here will impact which CHEM options will be available later.</p> <p>Based on ACT/SAT or other math placement scores, students may need to enroll in additional remediation related courses. See catalog or math placement website for additional information.</p>
<p>PHYSICS</p> <p>8 hrs</p>	<p>Choose 1 sequence:</p> <ul style="list-style-type: none"> • PHYS 20103/20101, College Physics I (Fall and summer only. pre-req MATH 11003 and 12003 or MATH 13004 or MATH 22003 or MATH 24004 or see course description for math placement) • PHYS 20203/20201, College Physics II (Spring and summer only. pre-req: PHYS 20103 or 20304) <p>• OR</p> <ul style="list-style-type: none"> • PHYS 20304, University Physics I (pre-req: MATH 24004) • PHYS 20404, University Physics II (pre-req: PHYS 20304 and MATH 25004) 	<p>These Physics II will be a pre-requisite to some future CHEM courses.</p> <p>Choice here will impact which CHEM options will be available later.</p>
<p>GENERAL CHEMISTRY</p> <p>8 hrs</p>	<p>Choose 1 sequence:</p> <ul style="list-style-type: none"> • CHEM 12073/12071, Chemistry for Majors I (Fall only. pre-req: MATH 11003 or higher or see course description for math placement) • CHEM 12283/12281, Chemistry for Majors II (Spring only. Co- or pre-req: MATH 13004 or higher. Pre-req: CHEM 12073/12071 or CHEM 14103/14101) <p>• Or</p> <ul style="list-style-type: none"> • CHEM 14103/14101, University Chemistry I (pre-req: MATH 11003 or see course description for math placement) • CHEM 14203/14201, University Chemistry II (pre-req: CHEM 14103 and MATH 11003 or see course description for math placement) 	<p>Students cannot receive degree credit for both CHEM 12073 and 14103 or CHEM 12283 and CHEM 14203.</p> <p>If a student changes to this major after having taken CHEM 1113, Chemistry for Engineers I and CHEM 1133/1131L, Chemistry for Engineers II, they can count those courses in this category, with substitution, if they also take CHEM 1101L or CHEM 1121L. (CHEM 1113, 1133, and 1131L are no longer taught, but the above policy applies to students who may have taken them previously)</p>
<p>ANALYTICAL CHEMISTRY</p> <p>4 hrs</p>	<ul style="list-style-type: none"> • CHEM 22673/22671, Analytical Chemistry (pre-req: CHEM 14203 or 12283 and MATH 11003 or see course description for math placement) 	<p>While not a required co-requisite in the course descriptions, chemistry majors should take the lecture and the lab in the same semester.</p> <p>This class will be a pre-requisite to future physical chemistry classes.</p>
<p>ORGANIC CHEMISTRY</p> <p>8-10 hrs</p>	<p>Choose 1 sequence:</p> <ul style="list-style-type: none"> • CHEM 37073/37072, Organic Chemistry for Majors I (Fall only. Pre-req: CHEM 14203 or 12283) • CHEM 37203/37202, Organic Chemistry for Majors II (Spring only. Pre-req: CHEM 37073) <p>Or:</p> <ul style="list-style-type: none"> • CHEM 36053/36051, Organic Chemistry I (Pre-req: CHEM 1123 or 1223) <p>CHEM 36203/36202, Organic Chemistry II (Pre-req: CHEM 3603 or 3703)</p>	<p>Honors students may also automatically count CHEM 360H3/360H2 and CHEM 362H3/362H2.</p>

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<p>PHYSICAL CHEMISTRY</p> <p>4-10 hrs</p>	<p>Choose 1 option:</p> <ul style="list-style-type: none"> • CHEM 34603/34601, Elements of Physical Chemistry (Fall only. Pre-req: CHEM 22673 and PHYS 20203 or 20404 and MATH 24004) • Or • CHEM 35004, Physical Chemistry I (Fall only. Co- or pre-req: MATH 2564c. Pre-req: CHEM 22673 and PHYS 20404) • CHEM 35204/35102, Physical Chemistry II (Spring only. Pre-req: CHEM 35004) 	<p>Students cannot receive credit for both Elements of Physical Chemistry and Physical Chemistry I & 2.</p>
<p>CHEMISTRY ELECTIVES</p> <p>6 hrs</p>	<p>Take two additional Lecture courses numbered 3000 level or higher.</p>	<p>CHEM 399T and 499T transfer courses can count here. as long as students still meet the 50% rule. Not all 99T classes pull into the degree audit automatically, so students may need to request classes be moved into the minor by their academic advisor</p>
<p>GENERAL ELECTIVES</p> <p>29-58 hrs</p>	<p>Hours will vary depending on math placement, language placement, choice within chemistry major, and whether a student is exempt from ENGL 10103 and 10203.</p>	<p>Some general electives may need to be upper level to meet college and university residency requirements. See Graduation Checklist on page 3 for more information.</p>
<p>WRITING REQUIREMENT</p>	<p>The college writing requirement may be satisfied in one of two ways:</p> <ul style="list-style-type: none"> • Completion of CHEM 34601 or CHEM 35102 • Successful honors thesis defense 	
<p>HONORS</p>	<p>Minimum Requirements for Honors:</p> <ul style="list-style-type: none"> • Maintain cumulative grade point average of 3.5 in all coursework. • Complete a minimum of 12 hours of honors courses from the UofA (which includes CHEM 401H1 taken once in Junior year and once in Senior year) • Complete and defend Honors Thesis <p>See Catalog for full description of requirements.</p>	<p>Honors Thesis Timeline: Honors students should consistently check the honors thesis timeline to stay on track to complete your honors thesis.</p> <p>College Honors: Students who also are following the College Honors Plan need to complete additional requirements. Those can be found on the advising website (consult with an academic advisor if you have questions about your catalog year): Academic Planning Resources</p>