

Academic Map: Chemistry, ACS Certified: Standard

Department: Chemistry and Biochemistry **Degree:** BS
Program/Major: Chemistry
Track/Emphasis: ACS Certified: Standard
Does this program require a minor? (Yes/No) No

Important program information in the online *Undergraduate Bulletin*:

UCA Core Requirements: <https://uca.edu/ubulletin/general-policies-information/uca-core/>
LD UCA Core Check Sheet: <https://uca.edu/academicbulletins/ld-uca-core/>
UD UCA Core Course List: <https://uca.edu/academicbulletins/ud-uca-core/>
Degree Requirements: <https://uca.edu/ubulletin/general-policies-information/degree-requirements/>
Program Description: <https://uca.edu/ubulletin/colleges-departments/cn/chemistry/>
Course Descriptions: <https://uca.edu/ubulletin/courses/>

This degree program requires a total of 120 semester credit hours, including at least 40 upper-division credit hours.

Comparable courses in the Arkansas Course Transfer System (ACTS) are cross-referenced in the ACTS column of each semester block below; a [core link](https://uca.edu/academicbulletins/ld-uca-core/) (https://uca.edu/academicbulletins/ld-uca-core/) takes the user to the *Undergraduate Bulletin's* Lower-Division (LD) UCA Core check sheet, where UCA Core options and ACTS course numbers are listed in full; an [acts link](https://uca.edu/academicbulletins/acts/) takes the user to the *Undergraduate Bulletin's* ACTS page (https://uca.edu/academicbulletins/acts/) for additional information and a UCA-ACTS crosswalk.

Scholarship recipients: Please be aware of eligibility criteria for your scholarship(s). In particular, pay attention to (1) the enrollment requirements each semester for disbursement of your scholarship(s) and (2) the number of hours and GPA required each semester and/or year for renewal of your scholarship(s). Some Academic Maps may suggest enrollment in fewer hours than required for disbursement of your scholarship(s). In such cases, work with your academic advisor to adjust your schedule to meet requirements most efficiently. Contact the Office of Student Financial Aid at (501) 450-3140 with any questions regarding enrollment/renewal requirements of your scholarship(s). For online information resources, see endnote 1.

Year 1

Fall – Semester 1 (credit hours: 14)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1450	College Chemistry I	4	CHEM1414
WRTG	1310	Introduction to College Writing	3	ENGL1013
MATH	1496	Calculus I	4	MATH2405
		LD UCA Core Course (First Year Seminar recommended) ²	3	core link

Spring – Semester 2 (credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1451	College Chemistry II	4	CHEM1424
WRTG ENGL	1320 1320	Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative	3	ENGL1023 ENGL1023 core link
MATH	1497	Calculus II	4	MATH2505
		LD UCA Core Course (First Year Seminar if not taken semester 1)	3	core link
		General Elective	1	

Year 2**Fall – Semester 3 (credit hours: 16)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	2401	Organic Chemistry I	4	
PHYS	1441	University Physics 1	4	PHYS2034
MATH	2471	Calculus III	4	MATH2603
		LD UCA Core Course	3	core link
		General Elective	1	

Spring – Semester 4 (credit hours: 16)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	3411	Organic Chemistry II	4	
PHYS	1442	University Physics 2	4	PHYS2044
CHEM	3211	Organic Spectroscopy	2	
MATH	3331	Differential Equations	3	
		LD UCA Core Course	3	core link

Year 3**Fall – Semester 5 (credit hours: 16)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	3520	Quantitative Analysis	5	
CHEM	4450	Physical Chemistry I	4	
BIOL	1440	Principles of Biology I	4	BIOL1014
		LD UCA Core Course	3	core link

Spring – Semester 6 (credit hours: 17)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	4460	Physical Chemistry II	4	
CHEM	4320	Biochemistry I	3	
		LD UCA Core Course	3	core link
		LD UCA Core Course	3	core link
CHEM	4451	Advanced Analytical Chemistry ³	4	

Year 4**Fall – Semester 7 (Credit hours: 14)**

SUBJ	NUM	TITLE	SCH	ACTS
		Major Elective, upper-division ⁴	3	
		UD UCA Core Course	3	
CHEM		Research ⁵	1	
		UD UCA Core Course	3	
		UD UCA Core Course or General Elective	3	
		General Elective	1	

Spring – Semester 8 (Credit hours: 12)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	4112	Seminar: Capstone (UD UCA Core: Z)	1	
CHEM	4380	Advanced Inorganic Chemistry	3	
CHEM	3150	Inorganic Laboratory	1	
		General Elective	3	
CHEM		Research ⁵	1	
		UD UCA Core Course	3	

SIGNED – DEPARTMENT CHAIR

DATE

SIGNED – COLLEGE DEAN

DATE

To be completed by the advisor when an Eight-Semester Plan is accepted by the student:

If applicable, has student selected a minor? Type “x” as appropriate. No Yes

If “yes,” specify: _____

Notes

¹ See online information resources for UCA scholarships at <https://uca.edu/scholarships/> and for state scholarships at <https://scholarships.adhe.edu/scholarships-and-programs/a-z/>.

² See appropriate choices, alternatives, or substitutions under “UCA Core” in the Undergraduate Bulletin. During the first year, a student must complete a UCA Core course designated as a First-Year Seminar (FYS) in Critical Inquiry, Diversity, or Responsible Living. An approved UCA Core lab science and an approved UCA Core math course should be taken in the first two years if possible.

The student will also need to complete major, minor, or general elective courses designated as fulfilling the upper-division and capstone requirements of the UCA Core. See the *Undergraduate Bulletin* and consult with your academic advisor to select appropriate courses to fulfill upper-division requirements. The capstone requirement is fulfilled by successful completion of CHEM 4112.

³ Must be taken in the semester offered.

⁴ Must be one of the following courses: CHEM 3360, CHEM 4335, CHEM 4351, or CHEM 4385.

⁵ Students must take at least two hours of research.