

## Academic Map: Chemistry, ACS Certified: Biochemistry

**Department:** \_\_\_\_\_ Chemistry \_\_\_\_\_ **Degree:** \_\_\_\_\_ BS \_\_\_\_\_  
**Program/Major:** \_\_\_\_\_ Chemistry \_\_\_\_\_  
**Track/Emphasis:** \_\_\_\_\_ ACS Certified: Biochemistry \_\_\_\_\_  
**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* UCA Lower-Division 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 <sup>1</sup>.

### Year 1

#### Fall – Semester 1 (credit hours: 14)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1450	College Chemistry I	4	<a href="#">CHEM1414</a>
MATH	1496	Calculus I	4	<a href="#">MATH2405</a>
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>
WRTG	1310	Introduction to College Writing	3	<a href="#">ENGL1013</a>

#### Spring – Semester 2 (credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1451	College Chemistry II	4	<a href="#">CHEM1424</a>
MATH	1497	Calculus II	4	<a href="#">MATH2505</a>
BIOL	1440	Principles of Biology I	4	<a href="#">BIOL1014</a>
WRTG ENGL	1320 1320	Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative (LD UCA Core: Research/Writing) <sup>2</sup>	3	<a href="#">ENGL1023</a> <a href="#">ENGL1023</a> <a href="#">core link</a>

**Year 2****Fall – Semester 3 (credit hours: 15)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	2401	Organic Chemistry I	4	
BIOL	1441	Principles of Biology II	4	
MATH	2471	Calculus III	4	<a href="#">MATH2603</a>
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>

**Spring – Semester 4 (credit hours: 16)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	3411	Organic Chemistry II	4	
CHEM	3211	Organic Spectroscopy	2	
PHYS	1441	University Physics 1	4	<a href="#">PHYS2034</a>
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>

**Year 3****Fall – Semester 5 (credit hours: 15)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	3520	Quantitative Analysis	5	
CHEM	4320	Biochemistry I	3	
PHYS	1442	University Physics 2	4	<a href="#">PHYS2044</a>
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>

**Spring – Semester 6 (credit hours: 17)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	4335	Biochemistry II	3	
BIOL	2490	Genetics	4	
CHEM	4121	Biochemistry Lab	1	
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>
		LD UCA Core Course <sup>2</sup>	3	<a href="#">core link</a>
		General Elective	3	

**Year 4****Fall – Semester 7 (Credit hours: 15)**

SUBJ	NUM	TITLE	SCH	ACTS
BIOL	3420	General Microbiology	4	
CHEM	4450	Physical Chemistry I	4	
		UD UCA Core Course	3	
CHEM		Research <sup>3</sup>	1	
		Inorganic Chemistry <sup>4</sup> or UD UCA Core Course	3	

**Spring – Semester 8 (Credit hours: 13)**

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	4112	Seminar: Capstone (UD UCA Core: Z)	1	
		General Elective	1	
CHEM		Research <sup>3</sup>	1	
		Inorganic Chemistry <sup>4</sup> or UD UCA Core Course	3	
CHEM	4460	Physical Chemistry II	4	
		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

<sup>1</sup> 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/>.

<sup>2</sup> 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 courses to fulfill the UD UCA Core requirements. The capstone requirement is fulfilled by successful completion of CHEM 4112.

<sup>3</sup> Students must take at least two hours of research.

<sup>4</sup> Students must take either CHEM 3360 (Intermediate Inorganic Chemistry) or CHEM 4380 (Advanced Inorganic Chemistry).