

## Academic Map: Chemistry, ACS Certified: Standard

**Department:** \_\_\_\_\_ Chemistry \_\_\_\_\_      **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:** <http://uca.edu/ubulletin/general-policies-information/uca-core/>  
**LD UCA Core Check Sheet:** <http://uca.edu/academicbulletins/ld-uca-core/>  
**UD UCA Core Course List:** <http://uca.edu/academicbulletins/ud-uca-core/>  
**Degree Requirements:** <http://uca.edu/ubulletin/general-policies-information/degree-requirements/>  
**Program Description:** <http://uca.edu/ubulletin/colleges-departments-programs/college-of-natural-sciences-and-mathematics/departments-of-chemistry/>  
**Course Descriptions:** <http://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](http://uca.edu/academicbulletins/ld-uca-core/) (http://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](http://uca.edu/academicbulletins/acts/) (http://uca.edu/academicbulletins/acts/) takes the user to the *Undergraduate Bulletin*'s ACTS page (http://uca.edu/academicbulletins/acts/) for additional information and a UCA-ACTS crosswalk.

### Year 1

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

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1450	College Chemistry I	4	<a href="#">CHEM1414</a>
WRTG	1310	Introduction to College Writing	3	<a href="#">ENGL1013</a>
MATH	1496	Calculus I	4	<a href="#">MATH2405</a>
		LD UCA Core Course <sup>1</sup>	3	<a href="#">core link</a>

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

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1451	College Chemistry II	4	<a href="#">CHEM1424</a>
WRTG ENGL	1320 1320	Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative <sup>1</sup>	3	<a href="#">ENGL1023</a> <a href="#">ENGL1023</a> <a href="#">core link</a>
MATH	1497	Calculus II	4	<a href="#">MATH2505</a>
		LD UCA Core Course <sup>1</sup>	3	<a href="#">core link</a>
		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	<a href="#">PHYS2034</a>
MATH	2471	Calculus III	4	<a href="#">MATH2603</a>
		LD UCA Core Course <sup>1</sup>	3	<a href="#">core link</a>
		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	<a href="#">PHYS2044</a>
CHEM	3211	Organic Spectroscopy	2	
MATH	3331	Differential Equations	3	
		LD UCA Core Course <sup>1</sup>	3	<a href="#">core link</a>

**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	<a href="#">BIOL1014</a>
		LD UCA Core Course <sup>1</sup>	3	<a href="#">core link</a>

**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 <sup>1</sup>	3	<a href="#">core link</a>
		LD UCA Core Course <sup>1</sup>	3	<a href="#">core link</a>
CHEM	4451	Advanced Analytical Chemistry <sup>2</sup>	4	

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

SUBJ	NUM	TITLE	SCH	ACTS
		Major Elective, upper-division <sup>3</sup>	3	
		UD UCA Core Course	3	
CHEM		Research <sup>4</sup>	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 <sup>4</sup>	1	
		UD UCA Core Course	3	

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 SIGNED – DEPARTMENT CHAIR

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 DATE

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 SIGNED – COLLEGE DEAN

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 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 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. Students are encouraged to choose a course in economics to fulfill either Lower Division Core social science category (ECON 2320 or 2321) or their responsible living category (ECON 1310) requirements.

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.

<sup>2</sup> Must be taken in the semester offered.

<sup>3</sup> Must be one of the following courses: CHEM 3360, CHEM 4335, CHEM 4351, or CHEM 4385.

<sup>4</sup> Students must take at least two hours of research.