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:	http://uca.edu/ubulletin/general-policies-information/uca-core/
LD Core Check Sheet:	http://uca.edu/academicbulletins/ld-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/department-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/) 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 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	CHEM1414
MATH	1496	Calculus I	4	MATH2405
		LD UCA Core Course[1]	3	core link
WRTG	1310	Introduction to College Writing	3	ENGL1013

Spring – Semester 2 (credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1451	College Chemistry II	4	CHEM1424
MATH	1497	Calculus II	4	MATH2505
BIOL	1440	Principles of Biology I	4	BIOL1014
WRTG ENGL	1320 1320	Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative (LD UCA Core: Research/Writing)[1]	3	ENGL1023 ENGL1023 core link

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	MATH2603
		LD UCA Core Course[1]	3	core link

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	PHYS2034
		LD UCA Core Course[1]	3	core link
		LD UCA Core Course[1]	3	core link

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	PHYS2044
		LD UCA Core Course[1]	3	core link

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[1]	3	core link
		LD UCA Core Course[1]	3	core link
		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[2]	1	
		Inorganic Chemistry[3] 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[2]	1	
		Inorganic Chemistry[3] 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

[1] 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 courses to fulfill the UD UCA Core requirements. The capstone requirement is fulfilled by successful completion of CHEM 4112.

[2] Students must take at least two hours of research.

[3] Students must take either CHEM 3360 (Intermediate Inorganic Chemistry) or CHEM 4380 (Advanced Inorganic Chemistry).