

Academic Map: Chemistry, ACS Certified: Biochemistry

Department: Chemistry and Biochemistry **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* 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 |
| MATH | 1496 | Calculus I | 4 | MATH2405 |
| | | LD UCA Core Course ² | 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) ² | 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 ² | 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 ² | 3 | core link |
| | | LD UCA Core Course ² | 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 ² | 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 ² | 3 | core link |
| | | LD UCA Core Course ² | 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 ³ | 1 | |
| | | Inorganic Chemistry ⁴ 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 ³ | 1 | |
| | | Inorganic Chemistry ⁴ 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 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 courses to fulfill the UD UCA Core requirements. The capstone requirement is fulfilled by successful completion of CHEM 4112.

³ Students must take at least two hours of research.

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