

Academic Map: Computer Science

Department: Computer Science and Engineering **Degree:** BS
Program/Major: Computer Science
Track/Emphasis: _____
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/computer-science/>
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 |
|------|--------------|---|-----|-----------|
| CSCI | 1470 | Computer Science I | 4 | |
| MATH | 1491 1496 | Applied Calculus for Life Sciences or Calculus I | 4 | MATH2405 |
| WRTG | 1310 | Introduction to College Writing | 3 | ENGL1013 |
| | | LD UCA Core Course ² | 3 | core link |

Spring – Semester 2 (credit hours: 16)

| SUBJ | NUM | TITLE | SCH | ACTS |
|--------------|--------------|---|-----|-----------------------------------|
| CSCI | 1480 | Computer Science II | 4 | |
| MATH | 2311 | Elementary Statistics | 3 | MATH2103 |
| WRTG ENGL | 1320 1320 | Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative (LD UCA Core: Research/Writing) | 3 | ENGL1023 ENGL1023 core link |
| | | LD UCA Core Course | 3 | core link |
| | | LD UCA Core Course | 3 | core link |

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

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|------------------------------------|-----|---------------------------|
| CSCI | 2320 | Data Structures | 3 | |
| CSCI | 2335 | Networking | 3 | |
| CSCI | 2330 | Discrete Mathematics for Computing | 3 | |
| | | LD UCA Core Course | 3 | core link |
| | | Lab Science Course ³ | 4 | acts link |

Spring – Semester 4 (credit hours: 15)

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|-------------------------------------|-----|---------------------------|
| CSCI | 3360 | Database Systems [UD UCA Core: C] | 3 | |
| CSCI | 3370 | Principles of Programming Languages | 3 | |
| CSCI | 3380 | Computer Architecture | 3 | |
| | | LD UCA Core Course | 3 | core link |
| | | LD UCA Core Course | 3 | core link |

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

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|--|-----|---------------------------|
| | | Mathematics Elective ⁴ | 3 | |
| CSCI | 3330 | Algorithms | 3 | |
| CSCI | 4321 | Ethical Implications [UD UCA Core: D, R] | 3 | |
| | | Computer Science Elective ⁵ | 3 | |
| | | LD UCA Core Course | 3 | core link |

Spring – Semester 6 (credit hours: 16)

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|--|-----|---------------------------|
| | | Lab Science Course | 4 | acts link |
| CSCI | 3381 | Object-Oriented Software Development with Java | 3 | |
| CSCI | 4300 | Operating Systems | 3 | |
| MATH | 3320 | Linear Algebra [UD UCA Core: I] | 3 | |
| | | Computer Science Elective | 3 | |

Year 4**Fall – Semester 7 (Credit hours: 16)**

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|---------------------------------------|-----|------|
| CSCI | 4490 | Software Engineering (UD UCA Core: Z) | 4 | |
| CSCI | 4315 | Information Security [UD UCA Core: R] | 3 | |
| | | General Elective | 3 | |
| | | General Elective | 3 | |
| | | General Elective | 3 | |

Spring – Semester 8 (Credit hours: 12)

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|-----|---------------------------|-----|------|
| | | Computer Science Elective | 3 | |
| | | Computer Science Elective | 3 | |
| | | General Elective | 3 | |
| | | General Elective | 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*. Prior to completion of 30 semester hours, a student must complete a UCA Core course designated as a First-Year Seminar (FYS) in Critical Inquiry, Diversity, or Responsible Living (one of the LD UCA Core courses in the second semester must be designated FYS).

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 annotations in this Academic Map and consult the *Undergraduate Bulletin* and your academic advisor for courses that fulfill these upper-division requirements.

³ This degree program requires a minimum of 8 credit hours in Lab Sciences in Biology and Chemistry or Physics. Courses that satisfy the requirement include BIOL 1440 (Biology I), CHEM 1450 (College Chemistry I), PHYS 1410 (College Physics 1), and PHYS 1441 (University Physics 1).

⁴ See the [Department of Computer Science and Engineering](#) page in the *Undergraduate Bulletin* for a list of Math electives.

⁵ See the [Department of Computer Science and Engineering](#) page in the *Undergraduate Bulletin* for a list of Computer Science electives.