

Academic Map: Cybersecurity, Cyberphysical Security

Department: _____ Computer Science and Engineering _____ **Degree:** _____ BS _____
Program/Major: _____ Cybersecurity _____
Track/Emphasis: _____ Cyberphysical Security _____
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/programs-by-program/interdisciplinary/cybersecurity/>
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 the Life Sciences or Calculus I (LD UCA Core [Quantitative]) | 4 | MATH2405 |
| WRTG | 1310 | Introduction to College Writing (LD UCA Core [Writing Foundation]) | 3 | ENGL1013 |
| PSCI | 1330 | US Government and Politics (LD UCA Core [American Hist/Gov]) | 3 | PLSC2003 |

Spring – Semester 2 (Credit hours: 17)

| SUBJ | NUM | TITLE | SCH | ACTS |
|----------------------|----------------------|--|-----|--|
| CSCI | 1480 | Computer Science II | 4 | |
| MATH QMTM PSCI | 2311 2330 2312 | Elementary Statistics or Business Statistics or Statistical Methods for Political Analysis | 3 | MATH2103 BUSI2103 |
| WRTG ENGL | 1320 1320 | Academic Writing and Research or Interdisciplinary Writing and Research (LD UCA Core [Res/Writing]) | 3 | ENGL1023 ENGL1023 |
| | | LD UCA Core requirement (Physical Science) ² | 4 | core link |

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|--|-----|------|
| PSCI | 2300 | International Relations (LD UCA Core [SS]) | 3 | |

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

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|--|-----|---------------------------|
| CSCI | 2320 | Data Structures | 3 | |
| CSCI | 2330 | Discrete Math | 3 | |
| CSEC | 2300 | Introduction to Cybersecurity | 3 | |
| | | LD UCA Core requirement (Life Science) | 4 | core link |
| | | LD UCA Core requirement (Fine Arts/Humanities) | 3 | core link |

Spring – Semester 4 (Credit hours: 15)

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|---|-----|---------------------------|
| CSEC | 3300 | Introduction to Number Theory and Cryptography | 3 | |
| CSCI | 2335 | Networking | 3 | |
| CSCI | 4305 | Linux/UNIX Systems | 3 | |
| | | LD UCA Core requirement (Diversity in Creative Works) | 3 | core link |
| | | LD UCA Core requirement (Responsible Living) | 3 | core link |

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

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|---|-----|---------------------------|
| CSCI | 3330 | Algorithms | 3 | |
| CSCI | 3360 | Database Systems [UD UCA Core: C] ³ | 3 | |
| CSCI | 4321 | Ethical Implications [UD UCA Core: D, R] | 3 | |
| CSEC | 3320 | Computer Forensics | 3 | |
| | | LD UCA Core requirement (Diversity in World Cultures) | 3 | core link |

Spring – Semester 6 (Credit hours: 15)

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|--|-----|------|
| CSCI | 4315 | Information Security [UD UCA Core: R] | 3 | |
| MIS | 4361 | Cybersecurity Governance and Policy | 3 | |
| CSCI | 4300 | Operating Systems | 3 | |
| CSEC | 4335 | Network Security [Concentration Requirement] | 3 | |
| | | General Elective | 3 | |

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

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|--|-----|------|
| MIS | 4355 | Project Management | 3 | |
| PSCI | 3316 | Cyber Security Law and Policy | 3 | |
| MGMT | 2301 | Business Communications (LD UCA Core [Oral Communication]) | 3 | |

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|---|-----|------|
| CSEC | 4320 | Ethical Hacking [Concentration Requirement] | 3 | |
| | | UD UCA Core [Inquiry] | 3 | |

Spring – Semester 8 (Credit hours: 13)

| SUBJ | NUM | TITLE | SCH | ACTS |
|------|------|---|-----|------|
| CSEC | 4490 | Cybersecurity Capstone [UD UCA Core: Z] | 4 | |
| CSEC | 4345 | Cyberphysical Security [Concentration Requirement] | 3 | |
| CSCI | 3V75 | Internship or Approved alternative [Concentration Requirement] | 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* and the lower-division UCA Core (LD UCA Core) Check Sheet ([core link](#)). 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. Specific LD UCA Core courses required by this program are explicitly listed in the AMAP.

³ 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 (UD UCA Core). See annotations in this AMAP for requirements in this program that fulfill UD UCA Core requirements; courses in the student’s selected Cybersecurity Concentration may also fulfill UD UCA Core requirements. See <http://uca.edu/academicbulletins/ud-uca-core/> for a complete list of courses approved for the UD UCA Core and capstone requirements.