

Academic Map: Cybersecurity, Cyberphysical Security

Department: _____ Computer Science _____ **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* UCA Lower-Division 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 2300	US Government and Politics (LD UCA Core [American Hist/Gov]) or International Relations (LD UCA Core [SS]) ²	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

SUBJ	NUM	TITLE	SCH	
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) ³	4	core link
		LD UCA Core requirement (Social Science) ²	3	core link

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

SUBJ	NUM	TITLE	SCH	
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	
CSEC	3300	Introduction to Number Theory and Cryptography	3	
CSCI	2335	Networking	3	
CSCI	3380	Computer Architecture	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	
CSCI	3330	Algorithms	3	
CSCI	3360	Database Systems [UD UCA Core: C] ⁴	3	
CSCI	4300	Operating Systems	3	
CSCI	4315	Information Security [UD UCA Core: R]	3	
		LD UCA Core requirement (Diversity in World Cultures)	3	core link

Spring – Semester 6 (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	
CSEC	3320	Computer Forensics	3	
MIS	4361	Cybersecurity Governance and Policy	3	
PHIL	3320 3325 4320	Ethics [UD UCA Core: I, R] or Political Philosophy [UD UCA Core: I, R] or Applied Ethics [UD UCA Core: D, R] ⁵	3	
CSEC	4335	Network Security [Concentration Requirement]	3	
		General Elective	3	

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

SUBJ	NUM	TITLE	SCH	
MIS	4355	Project Management	3	
PSCI	3316	Cyber Security Law and Policy	3	
MGMT	2301	Business Communications (LD UCA Core [Oral Communication])	3	
CSEC	4320	Ethical Hacking [Concentration Requirement]	3	
		General Elective	3	

Spring – Semester 8 (Credit hours: 13)

SUBJ	NUM	TITLE	SCH	
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 All Cybersecurity majors must take either PSCI 1330 or PSCI 2300, and those in the Cybersecurity Strategic Policy concentration must take both. Both courses are, however, prerequisites for PSCI 3316, a requirement in all three concentrations, so all majors will ultimately need to complete both. Because each of these courses meets a different requirement of the lower-division UCA Core, we therefore recommend completing both during the first year, thus simultaneously meeting prerequisite requirements for PSCI 3316 and two requirements of the LD UCA Core. In this AMAP, then, the choice in semester 2 should be guided by which course was taken in semester 1.

³ 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.

⁴ 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

Notes – *continued*

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.

⁵ A student who has taken or plans to take PHIL 4320 in the Cybersecurity core will need to select in the General Electives category a course with the [UD UCA Core: I] designation; a student who has taken or plans to take PHIL 3320 or 3325 in the Cybersecurity core will need to select in the General Electives category a course with the [UD UCA Core: D] designation.