Academic Map: Computer Engineering

Department: Computer Science and Engineering   **Degree:**   BS

Program/Major: Computer Engineering

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 <u>123</u> 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/) 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 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: <u>17</u>)

SUBJ	NUM	TITLE	SCH	ACTS
CSCI	1470	Computer Science I	4	
MATH	1496	Calculus I (LD UCA Core, Quantitative)	4	MATH2405
ENGR	1301	Introduction to Engineering	3	
WRTG	1310	Introduction to College Writing (LD UCA Core, Writing Foundation)	3	ENGL1013
		LD UCA Core: First Year Seminar[2]	3	core link

Spring – Semester 2 (Credit hours: <u>15</u>)

SUBJ	NUM	TITLE	SCH	ACTS
CSCI	1480	Computer Science II	4	
PHYS	1441	University Physics 1 (LD UCA Core, Physical Science)	4	PHYS2034
WRTG ENGL	1320 1320	Academic Writing & Research or Interdisciplinary Writing & Research or Other approved alternative (LD UCA Core, Research & Writing)	3	ENGL1023 ENGL1023 core link
MATH	1497	Calculus II	4	MATH2505

Year 2

Fall – Semester 3 (Credit hours: <u>16</u>)

SUBJ	NUM	TITLE	SCH	ACTS
CSCI	2320	Data Structures	3	
CSCI	2340	Assembly Language Programming	3	
CSCI	2330	Discrete Mathematics for Computing	3	
PHYS	1442	University Physics 2	4	PHYS2044
		LD UCA Core Requirement	3	core link

Spring – Semester 4 (Credit hours: <u>17</u>)

SUBJ	NUM	TITLE	SCH	ACTS
ENGR	3415	An Introduction to Digital Logic	4	
ENGR	2447	Electronics	4	
MATH	3320	Linear Algebra [UD UCA Core: I]	3	
MATH	3331	Ordinary Differential Equations [UD UCA Core: C][3]	3	
		LD UCA Core Requirement	3	core link

Year 3

Fall – Semester 5 (Credit hours: <u>16</u>)

SUBJ	NUM	TITLE	SCH	ACTS
CSCI	3380	Computer Architecture	3	
ENGR	3301	Signals and Systems	3	
CSCI	3381	Object-Oriented Software Development with Java	3	
MATH	2311	Elementary Statistics	3	MATH2103
BIOL	1400 1440	Exploring Concepts in Biology or Principles of Biology I or Approved alternative (LD UCA Core, Lab Science)	4	BIOL1004 BIOL1014 core link

Spring – Semester 6 (Credit hours: <u>16</u>)

SUBJ	NUM	TITLE	SCH	ACTS
ENGR	3416	Microprocessor Systems	4	
ENGR		Computer Engineering Elective[4]	3	
CSCI	4321	Ethical Implications [UD UCA Core: D, R]	3	
		LD UCA Core Requirement	3	core link
		LD UCA Core Requirement	3	core link

Year 4

Fall – Semester 7 (Credit hours: <u>14</u>)

SUBJ	NUM	TITLE	SCH	ACTS
ENGR	4311	Senior Design I	3	
CSCI	4490	Software Engineering [UD UCA Core: Z]	4	
ENGR	4450	Embedded Systems	4	
ENGR		Computer Engineering Elective	3	

Spring – Semester 8 (Credit hours: 12)

SUBJ	NUM	TITLE	SCH	ACTS
ENGR	4312	Senior Design II [UD UCA Core: Z]	3	
ENGR		Computer Engineering Elective	3	
		LD UCA Core Requirement	3	core link
		LD UCA Core Requirement	3	core link

_____   _____
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] Follow the core link in this AMAP for the available LD UCA Core options.

[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.

[4] For a list of choices, see the Computer Engineering program description in the *Undergraduate Bulletin*.