

Academic Map: Physics, Physical Science

Department: _____ Physics and Astronomy _____ **Degree:** _____ BS _____
Program/Major: _____ Physics _____
Track/Emphasis: _____ Physical Science _____
Does this program require a minor? (Yes/No) _____ Yes _____

Important program information in the online *Undergraduate Bulletin*:

UCA Core Requirements: <http://uca.edu/ubulletin/general-policies-information/uca-core/>
LD UCA Core Check Sheet: <http://uca.edu/academicbulletins/ld-uca-core/>
UD UCA Core Course List: <http://uca.edu/academicbulletins/ud-uca-core/>
Degree Requirements: <http://uca.edu/ubulletin/general-policies-information/degree-requirements/>
Program Description: <http://uca.edu/ubulletin/colleges-departments-programs/college-of-natural-sciences-and-mathematics/department-of-physics-and-astronomy/>
Course Descriptions: <http://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](http://uca.edu/academicbulletins/ld-uca-core/) (<http://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](http://uca.edu/academicbulletins/acts/) (<http://uca.edu/academicbulletins/acts/>) takes the user to the *Undergraduate Bulletin's* ACTS page (<http://uca.edu/academicbulletins/acts/>) for additional information and a UCA-ACTS crosswalk.

Year 1

Fall – Semester 1 (credit hours: 15)¹

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	1441	University Physics 1 or	4	PHYS2034 PHYS2014
PHYS	1410	College Physics 1		
MATH	1496	Calculus I	4	MATH2405
WR TG	1310	Introduction to College Writing	3	ENGL1013
BIOL	1400	Exploring Concepts in Biology or Approved alternative (LD UCA Core: Life Science) ²	4	BIOL1004 core link

Spring – Semester 2 (credit hours: 15)¹

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	1442	University Physics 2 or	4	PHYS2044 PHYS2024
PHYS	1420	College Physics 2		
MATH	1497	Calculus II	4	MATH2505
WR TG	1320	Academic Writing and Research or	3	ENGL1023 ENGL1023 core link
ENGL	1320	Interdisciplinary Writing and Research or Other approved alternative (LD UCA Core: Research/Writing) ²		
		LD UCA Core ²	3	core link
		General Elective	1	

Year 2**Fall – Semester 3 (credit hours: 15)**

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	2443	University Physics 3	4	
MATH	2471	Calculus III	4	MATH2603
CHEM	1450	College Chemistry I	4	CHEM1414
		LD UCA Core Course ²	3	core link

Spring – Semester 4 (credit hours: 16)

SUBJ	NUM	TITLE	SCH	ACTS
CHEM	1451	College Chemistry II	4	CHEM1424
		LD UCA Core Course ²	3	core link
		LD UCA Core Course ²	3	core link
		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
PHYS	3210	Experiments in Physics 1	2	
CHEM	2401	Organic Chemistry I	4	
PHYS		Physics Elective ^{3, 4}	3	
		Minor Elective ^{4, 5}	3	
WRTG	3310	Technical Writing (UD UCA Core: C)	3	

Spring – Semester 6 (credit hours: 17)

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	3220	Experiments in Physics 2	2	
PHYS		Physics Elective ^{3, 4}	3	
CHEM		Chemistry Elective ^{3, 4}	3	
		LD UCA Core Course ²	3	core link
		Minor Elective ^{4, 5}	3	
		Minor Elective ^{4, 5}	3	

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

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	4111	Senior Capstone	1	
PHYS		Physics Elective ^{3, 4}	3	
		Minor Elective ^{4, 5}	3	
		Minor Elective ^{4, 5}	3	
		General Elective Course ⁴ (UD UCA Core: D)	3	
		General Elective Course ⁴	2	

Spring – Semester 8 (Credit hours: 12)

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	4211	Senior Capstone (UD UCA Core: Z)	2	
		Minor Elective ^{4,5}	3	
		Minor Elective ^{4,5}	3	
PHIL PHIL	3320 3325	Ethics (UD UCA Core: I, R) Political Philosophy (UD UCA Core: I, R) or Other UD UCA Core fulfilling these requirements	3	
		General Elective Course ⁴	1	

 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 Prior to completion of 30 semester hours, a student must complete a LD UCA Core course designated as a First-Year Seminar (FYS) in Critical Inquiry, Diversity, or Responsible Living.

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.

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 for courses that fulfill these requirements. Consult the *Undergraduate Bulletin* and your academic advisor for other available courses.

³ PHYS and CHEM elective courses must be approved by the Chair of the Department of Physics and Astronomy.

⁴ Major Elective, Minor Elective, and General Elective courses must be selected so that a minimum of 40 hours of credit is earned at the 3000 level or above.

⁵ This Academic Map includes 21 credit hours in the Minor field of study. Minor requirements range from 15 to 27 credit hours. Depending on the minor selected, the student will need to adjust the number of general elective and minor elective credit hours in this AMAP.