Program Completion Plan (Eight Semester Plan)

Department: Physics and Astronomy **Degree:** BS

Program/Major: Physics

Track/Emphasis: Chemical Physics

Does this program require a minor? (Yes/No) No

Important program information in the online *Undergraduate Bulletin*:

UCA Core Requirements: http://uca.edu/ubulletin2014/general-policies-information/uca-core/

Degree Requirements: http://uca.edu/ubulletin2014/general-policies-information/degree-requirements/

Program Description: http://uca.edu/ubulletin2014/colleges-departments-programs/college-of-natural-sciences-and-mathematics/department-of-physics-and-astronomy/

Course Descriptions: http://uca.edu/ubulletin2014/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/go/ubulletin2014-ldcore/) takes the user to the *Undergraduate Bulletin*'s UCA Core page, 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 (http://uca.edu/go/acts) for additional information and a full UCA-ACTS crosswalk.

Year 1

Fall – Semester 1 (credit hours: 15)[1]

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	1441	University Physics 1	4	PHYS2034
MATH	1496	Calculus I	4	MATH2405
CHEM	1450	College Chemistry I	4	CHEM1414
WRTG	1310	Introduction to College Writing	3	ENGL1013

Spring – Semester 2 (credit hours: 15)[1]

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	1442	University Physics 2	4	PHYS2044
MATH	1497	Calculus II	4	MATH2505
CHEM	1451	College Chemistry II	4	CHEM1424
WRTG ENGL	1320 1320	Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative	3	ENGL1023 ENGL1023

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	2401	Organic Chemistry I	4	
		Lower Division UCA Core Course[2]	3	core link

Spring – Semester 4 (credit hours: 17)

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	3341	Mathematical Methods in Physics	3	
MATH	3331	Ordinary Differential Equations	3	
CHEM	3520	Quantitative Analysis	5	
		Lower Division UCA Core Course[2]	3	core link
		Lower Division 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	
PHYS	3342	Mechanics	3	
PHYS	3360	Electromagnetism 1	3	
BIOL	1400	Biology for General Education	4	BIOL1004
WRTG	3310	Technical Writing	3	

Spring – Semester 6 (credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	3220	Experiments in Physics 2	2	
PHYS	3361	Electromagnetism 2	3	
CHEM		Chemistry Elective[3]	4	
		Lower Division UCA Core Course[2]	3	core link
		Lower Division UCA Core Course[2]	3	core link

Year 4

Fall – Semester 7 (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	4111	Senior Capstone 1	1	
PHYS	3353	Quantum Mechanics 1	3	
CHEM		Chemistry Elective[3]	4	
		Lower Division UCA Core Course[2]	3	core link
		Lower Division UCA Core Course[2]	3	core link
		General Elective Course	1	

Spring – Semester 8 (Credit hours: 13)

SUBJ	NUM	TITLE	SCH	ACTS
PHYS	4211	Senior Capstone 2	2	
CHEM		Chemistry Elective[3]	4	
		General Elective Course	1	
		General Elective Course	3	
		General Elective Course	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] 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.

[2] See appropriate choices, alternatives, or substitutions under "UCA Core" in the *Undergraduate Bulletin*. 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.

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