Academic Map: Mathematics, Pure Mathematics

Department:	Mathematics	**Degree:**	BS
Program/Major:	Mathematics		
Track/Emphasis:	Pure Mathematics		
Does this program require a minor? (Yes/No)	Yes		

Important program information in the online *Undergraduate Bulletin*:

UCA Lower Division Core Requirements:	http://uca.edu/ubulletin2015/general-policies-information/uca-core/
LD Core Check Sheet:	http://uca.edu/ubulletin/ldcore/
Degree Requirements:	http://uca.edu/ubulletin2015/general-policies-information/degree-requirements/
Program Description:	http://uca.edu/ubulletin2015/colleges-departments-programs/college-of-natural-sciences-and-mathematics/department-of-mathematics/
Course Descriptions:	http://uca.edu/ubulletin2015/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/ubulletin/ldcore/) takes the user to the *Undergraduate Bulletin*'s UCA Lower-Division Core check sheet, where UCA Lower Division 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/ubulletin/arkansas-course-transfer-system/) for additional information and a UCA-ACTS crosswalk.

Year 1

Fall – Semester 1 (credit hours: 16)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	1496	Calculus I	4	MATH2405
WRTG	1310	Introduction to College Writing or Approved alternative	3	ENGL1013 core link
		UCA Lower Division Core[1]	3	core link
		UCA Lower Division Core[1]	3	core link
		UCA Lower Division Core[1]	3	core link

Spring – Semester 2 (credit hours: 14)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	1497	Calculus II	4	MATH2505
WRTG ENGL	1320 1320	Academic Writing and Research or Interdisciplinary Writing and Research or Other approved alternative	3	ENGL1023 ENGL1023 core link
		UCA Lower Division Core[1]	3	core link
		UCA Lower Division Core (Natural Sciences)[1]	4	core link

Year 2

Fall – Semester 3 (credit hours: <u>14</u>)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	2335	Transition to Advanced Mathematics	3	
MATH	2471	Calculus III	4	MATH2603
		UCA Lower Division Core[1]	3	core link
		UCA Lower Division Core (Natural Sciences)[1]	4	core link

Spring – Semester 4 (credit hours: <u>15</u>)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3320	Linear Algebra [UCA Upper Core: I]	3	
MATH	3331	Differential Equations [UCA Upper Core: C]	3	
		UCA Lower Division Core[1]	3	core link
		UCA Lower Division Core[1]	3	core link
		Minor Field Course[2, 3]	3	

Year 3

Fall – Semester 5 (credit hours: <u>15</u>)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3360	Introduction to Rings and Fields	3	
MATH	4371	Introduction to Probability [UCA Upper Core: R]	3	
MATH		MATH Major Elective	3	
		General Elective[3]	3	
		Minor Field[2,3]	3	

Spring – Semester 6 (credit hours: <u>15</u>)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3362	Introduction to Group Theory	3	
MATH		MATH Major Elective	3	
		General Elective[3]	3	
		Minor Field[2, 3]	3	
		Minor Field[2, 3]	3	

Year 4

Fall – Semester 7 (Credit hours: <u>16</u>)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	4362	Advanced Calculus I [UCA Upper Core: Z]	3	
		General Elective[3]	3	
		General Elective[3]	4	
		Minor Field[2, 3]	3	
		Minor Field[2, 3]	3	

Spring – Semester 8 (Credit hours: <u>15</u>)

SUBJ	NUM	TITLE	SCH	ACTS
		General Elective[3]	3	
		General Elective[3]	3	
		General Elective[3]	3	
		Minor Field[2, 3]	3	
		Minor Field[2, 3]	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 appropriate choices, alternatives, or substitutions under "UCA Lower Division Core" in the *Undergraduate Bulletin*. Prior to completion of 30 semester hours, a student must complete a UCA Lower Division 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 Lower Division Core.

[2] This Academic Map includes 24 credit hours in the Minor field of study. Minor requirements range from 15 to 27 credit hours, so the student will need to adapt the number of general elective and minor elective credit hours in this plan as needed, depending upon the chosen minor field. Given a student's choice of minor and special degree requirements, the total number of credit-hours taken may exceed the total number of credit hours required to complete the program.

[3] The pure mathematics major requires 24 hours of upper division courses. The additional 16 upper division credit hours needed to complete the degree may be met by minor field courses and additional math or general electives.