Academic Map: Mathematics, STEM Teach Pure Mathematics Track

Department:	Mathematics	**Degree:**	BS
Program/Major:	Mathematics		
Track/Emphasis:	STEM Teach Pure Mathematics Track		
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: 14)

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
EDUC	1100	Inquiry Approaches to Teaching (UCA STEM Teach Minor Course)[2]	1	

Spring – Semester 2 (credit hours: 15)

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
EDUC	1101	Inquiry Based Lesson Design (UCA STEM Teach Minor Course)[2]	1	

Year 2

Fall – Semester 3 (credit hours: 14)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	2335	Transition to Advanced Mathematics	3	
MATH	2471	Calculus III	4	
EDUC	1301	Knowing and Learning (UCA STEM Teach Minor Course)[2]	3	
		UCA Lower Division Core (Natural Sciences)[1]	4	core link

Spring – Semester 4 (credit hours: 15)

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
		UCA Lower Division Core[1]	3	core link

Year 3

Fall – Semester 5 (credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3360	Introduction to Rings and Fields	3	
MATH	4371	Introduction to Probability [UCA Upper Core: R]	3	
MATH	4313	Functions and Modeling	3	
MATH	3354	Concepts of Discrete Math (or MATH 2330)	3	
		UCA Lower Division Core[1]	3	core link

Spring – Semester 6 (credit hours: 15 or 16)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3362	Introduction to Group Theory	3	
MATH	4372	Introduction to Statistical Inference (or MATH 3311)	3	
		General Elective[3]	3 or 4	
MATH	4345	College Geometry	3	
EDUC	2301	Classrooms Interactions (UCA STEM Teach Minor Course)[2]	3	

Year 4

Fall – Semester 7 (Credit hours: 16)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	4362	Advanced Calculus I [UCA Upper Core: Z]	3	
MATH		Math Major Elective	3	
		General Elective[3]	4	
EDUC	3300	Project Based Instruction (UCA STEM Teach Minor Course)[2]	3	
STEM	3310	Research Method and Mathematics and Science (UCA STEM Teach Minor Course)[2]	3	

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

SUBJ	NUM	TITLE	SCH	ACTS
		General Elective[3]	3	
STEM	3305	Perspectives on Mathematics and Science (UCA STEM Teach Minor Course)	3	
STEM	4305	Apprentice Teaching Seminar (UCA STEM Teach Minor Course)	3	
STEM	4600	Apprentice Teaching (UCA STEM Teach Minor Course)	6	

_____   _____
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** __X__ **Yes**
If "yes," specify: __UCA STEM TEACH [2]_____

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 Plan includes 24 credit hours UCA STEM TEACH minor.

[3] Students will need to adjust the number of general elective credit hours depending on the sequence chose to meet the program requirements.