

Academic Map: Mathematics, STEMteach Pure Mathematics Track

Department: Mathematics Degree: BS
 Program/Major: Mathematics
 Track/Emphasis: STEMteach Pure Mathematics Track
 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 Core Check Sheet: <http://uca.edu/academicbulletins/ld-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/departments-of-mathematics/>
 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 LD UCA Core options and ACTS course numbers are listed in full; an [acts link](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: 14)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	1496	Calculus I	4	MATH2405
WRTG	1310	Introduction to College Writing or Approved alternative (LD UCA Core: Writing Foundation) ¹	3	ENGL1013 core link
		LD UCA Core ¹	3	core link
		LD UCA Core ¹	3	core link
EDUC	1100	Inquiry Approaches to Teaching (UCA STEMteach) 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 ¹	3	ENGL1023 ENGL1023 core link
		LD UCA Core ¹	3	core link
		LD UCA Core (Natural Sciences) ¹	4	core link
EDUC	1101	Inquiry Based Lesson Design (UCA STEMteach) 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	MATH2603
EDUC	1301	Knowing and Learning (UCA STEMteach) ²	3	
		LD UCA Core (Natural Sciences) ¹	4	core link

Spring – Semester 4 (credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3320	Linear Algebra (UD UCA Core: I)	3	
MATH	3331	Differential Equations (UD UCA Core: C)	3	
		LD UCA Core ¹	3	core link
		LD UCA Core ¹	3	core link
		LD UCA 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 (UD UCA Core: R)	3	
MATH	4313	Functions and Modeling	3	
MATH	3354 2330	Concepts of Discrete Mathematics or Discrete Structures I	3	
		LD UCA Core ¹	3	core link

Spring – Semester 6 (credit hours: 16)

SUBJ	NUM	TITLE	SCH	ACTS
MATH	3362	Introduction to Group Theory	3	
MATH	4372 3311	Introduction to Statistical Inference or Statistical Methods II	3	
MATH	4345	College Geometry	3	
EDUC	2301	Classroom Interactions (UCA STEMteach) ²	3	
		General Elective	4	

Year 4**Fall – Semester 7 (Credit hours: 16)**

SUBJ	NUM	TITLE	SCH	ACTS
MATH	4362	Advanced Calculus I (UD UCA Core: Z)	3	
MATH		Math Major Elective	3	
		General Elective	4	
EDUC	3300	Project-Based Instruction (UCA STEMteach) ²	3	
STEM	3310	Research Method in Mathematics and Science (UCA STEMteach) ²	3	

Spring – Semester 8 (Credit hours: 15)

SUBJ	NUM	TITLE	SCH	ACTS
		General Elective	3	
STEM	3305	Perspectives on Mathematics and Science (UCA STEMteach) ²	3	
STEM	4305	Apprentice Teaching Seminar (UCA STEMteach) ²	3	
STEM	4600	Apprentice Teaching (UCA STEMteach) ²	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 STEMteach

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 Core. See annotations in this Academic Map for courses in the major that fulfill UD UCA Core requirements; for others, consult the *Undergraduate Bulletin* and your academic Advisor.

² This Academic Plan includes the 26 credit hours of the UCA STEMteach minor.