

# Check sheet for the B.S. Degree in Mathematics

**Department of Mathematics  
University of Central Arkansas**

## UCA STEM TEACH PURE MATHEMATICS OPTION

### Core Courses (21 Hours)

COURSE NO.	COURSE	CREDIT HRS	PREREQUISITE	SEMESTER OFFERED
MATH 1496	Calculus I	4	C or better in MATH 1390 and MATH 1392; or C or better in MATH 1580; or equivalent.	Fall, Spring, & Summer
MATH 1497	Calculus II	4	C or better in MATH 1496.	Fall, Spring, & Summer
MATH 2335	Transition to Advanced Math	3	MATH 1497	Fall & Spring
MATH 2471	Calculus III	4	C or better in MATH 1497	Fall, Spring, & Summer
MATH 3320	Linear Algebra	3	MATH 1497 or 2330	Fall, Spring, & Summer
MATH 4371	Introduction to Probability Theory	3	MATH 1497	Fall

### Required Courses (24 Hours)

MATH 3331	Ordinary Differential Equations	3	MATH 1497	Fall & Spring
MATH 3360	Abstract Algebra I	3	MATH 2335	Fall
MATH 3362	Abstract Algebra II	3	MATH 3360	Spring
MATH 4313	Functions and Modeling	3		Fall
MATH 4345	College Geometry	3	MATH 1496	Spring
MATH 4362	Advanced Calculus I	3	MATH 2471	Fall
MATH 4372 <b>OR</b> MATH 3311	Introduction to Statistical Inference <b>OR</b> Statistical Methods II	3	MATH 4371 MATH 2311 or equivalent	Spring On Demand
MATH X3XX	Upper Division Math Elective	3		

### AND UCA STEM TEACH MINOR

EDUC 1100	Inquiry Approaches to Teaching	1		Fall/Spring
EDUC 1101	Inquiry Based Lesson Design	1	EDUC 1100	Fall/Spring
EDUC 1301	Knowing and Learning	3	EDUC 1100	Fall/Spring
EDUC 2301	Classroom Interactions	3	EDUC 1301 OR or consent of instructor	Fall/Spring
EDUC 3300	Project-Based Instruction	3	Consent of instructor and admission to teacher ed program	Fall/Spring
STEM 3305	Perspectives on Mathematics & Science	3	EDUC 1301 or consent of instructor	Fall/Spring
STEM 3310	Research Methods in Mathematics & Science	3	EDUC 1301 or consent of instructor	Fall/Spring
STEM 4305	Apprentice Teaching Seminar	3	Completion of all other courses Co-requisite: 4600 Apprentice Teaching	Fall/Spring
<sup>4</sup> STEM 4600	Apprentice Teaching	6	Completion of all other courses Co-requisite: 4305 Apprentice Teaching Seminar	Fall/Spring

### OTHER REQUIREMENTS

- Must complete 120 semester hours including 38 hours of General Education.
- GPA of 2.5 or better in each of the major and minor fields
- Must have 40 hours of upper level (3000 or 4000) courses.
- Praxis II content exams must be passed before enrolling in STEM 4600.
- At least 15 hours of the major must be earned in residence.