# MATHEMATICS UASCIENCE



# B.A. / B.S. in Mathematics, Education Option

The **Secondary Mathematics Education Program** is one option in the College of Science BA or BS degree in Mathematics. This option is intended to prepare students to be secondary school mathematics teachers. Students who complete this option will be certified by The Arizona Department of Education as having fulfilled a teacher preparation degree program. The Education Option has two components, a set of **courses in Mathematics** and a set of **courses in Teaching and Learning Mathematics**. The **courses in Teaching and Learning Mathematics** replace the requirement for the minor, although students are encouraged to pursue another area as a minor.

# Admission/Enrollment

⇒Students interested in enrollment need to contact the Math Center at <u>mcenter@math.arizona.edu</u> or (520) 626-9837 ⇒To be admitted to this program, you must declare Mathematics as your major and select the Education Option.

- ⇒The Mathematics Education Faculty will monitor students' progress throughout the program and decide, on the basis of each student's performance in the mathematics major and minor courses, if the student will be admitted to the last phases of the program.
- ⇒The minimum number of credits for this degree is 120 (42 upper-division credits required)

# **Courses in Mathematics**

<b>CSC 127A</b> (4)	□ <b>MATH 215</b> (3)	□ <b>MATH 323</b> (3)
or <b>ISTA 130</b> (4)	Introduction to Linear Algebra	Formal Mathematical Reasoning and Writing
<b>MATH 122A&amp;B/125</b> (5/3)	□ <b>MATH 355</b> (3)	□ MATH 404 (3)
Calculus I	Analysis of Ordinary Diff. Equations	History of Mathematics
<b>MATH 129</b> (3)	<b>MATH 361</b> (3)	□ MATH 315 (3)
Calculus II	Statistics for Teaching	Intro. to Number Theory and Modern Algebra
<b>MATH 223</b> (4)	□ <b>MATH 330</b> (3)	□ <b>MATH 407</b> (3)
Vector Calculus	Topics in Geometry	Synthesis of Mathematical Concepts

## Courses in Teaching and Learning Mathematics (pedagogy)<sup>†</sup>

□ <b>MATH 205</b> (3) – 16 hours FE <sup>+</sup>	□ <b>STCH 310</b> (3) – 16 hours FE <sup>†</sup>		
Teaching Secondary Mathematics	Adolescent Learning in Science and Mathematics		
	$\Box$ LCEV 416 (3) <sup>*</sup>		
Methods of Teaching English to English Language Learners	Structured English Immersion Methods		
□ SERP 301B (2)	□ LRC 435 (3)		
Inclusive Ed. for Sec. Students With Diverse Abilities	Content Area Literacy in a Multicultural School		
□ <b>MATH 406A</b> (4) – 30 hours FE <sup>†</sup>	□ <b>MATH 406B</b> (4) – 30 hours FE <sup>+</sup>		
Curriculum and Assessment in Secondary School	Methods of Teaching Mathematics in Secondary		
Mathematics	Schools		
□ MATH 494C (15) – 85 days, approx 600 hours FE <sup>+</sup>			

Student Teaching

<sup>†</sup>Several of the pedagogy classes involve a field experience (FE) requirement; the time required is indicated above. <sup>\*</sup>Online course offered through UASouth. Main campus students register through UAccess.

## Additional Certification Requirements

## U.S. and Arizona Constitutions (choose one of four options):

- (1) UA Coursework: **POL 210** (US & AZ Constitution) **or POL 201** (U.S.) <u>and</u> **POL 230** (AZ)
- (2) Passing scores on the two AEPA AZ State examinations (U.S. and Arizona Constitutions)
- (3) Pima C.C. course: POS 210 (U.S. & AZ Constitutions) or POS 214 (AZ) and POS 231 (U.S.)
- (4) Other approved in-state transfer coursework
- □ Fingerprint Clearance Card obtain a Fingerprint Clearance Card during Math 205

□ Arizona Educator Proficiency Assessments (AEPA) - Pass the Professional Knowledge and Subject Knowledge (Mathematics) portions: www.aepa.nesinc.com