

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

The Secondary Mathematics Education Program is one emphasis in the College of Science B.A. or B.S. degree in Mathematics. This emphasis is intended to prepare students to be secondary school mathematics teachers. Students who complete this emphasis will be certified by The Arizona Department of Education as having fulfilled a teacher preparation degree program. The Education Emphasis 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 can 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 Emphasis.
- 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**

□ CSC 127A (4)	☐ MATH 313 (3)	□ MATH 315 (3)
or ISTA 130 (4) or approved	Introduction to Linear Algebra	Intro. to Number Theory and Modern Algebra
alternate programming course		
☐ MATH 122A&B/125 (5/3)	□ MATH 355 (3)	□ MATH 323 (3)
Calculus I	Analysis of Ordinary Diff. Equations	Formal Mathematical Reasoning and Writing
☐ MATH 129 (3)	□ MATH 330 (3)	□ MATH 404 (3)
Calculus II	Topics in Geometry	History of Mathematics
☐ MATH 223 (4)	□ MATH 361 (3)	□ MATH 407 (3)
Vector Calculus	Statistics for Teaching	Synthesis of Mathematical Concepts

# Courses in Teaching and Learning Mathematics (Pedagogy)†

☐ MATH 205 (3) – 16 hours FP <sup>†</sup>	□ EDP 301 (3)
Teaching Secondary Mathematics	Adolescent Learning in Science and Mathematics
☐ MATH 406A (4) – 30 hours FP <sup>†</sup>	□ SERP 301B (2)
Curriculum and Assessment in Secondary School Mathematics	Inclusive Ed. for Sec. Students With Diverse Abilities
☐ MATH 406B (4) – 30 hours FP <sup>†</sup>	□ TLS 416 (3)
Methods of Teaching Mathematics in Secondary Schools	Structured English Immersion Foundations
☐ MATH 494C (15) – 80 days, approx. 600 hours FP <sup>†</sup>	□ TLS 435 (3)
Student Teaching Field Practicum	Content Area Literacy in a Multicultural School

<sup>†</sup> Field Practicum (FP) requirement

## **Additional AZ Certification Requirements**

- ☐ U.S. and Arizona Constitutions (choose one option)
  - (1) POL 210, UA
  - (2) POS 210, Pima Community College
  - (3) Equivalent course from another AZ community college
  - (4) Passing scores on the two AEPA examinations (U.S. and AZ Constitutions)
- ☐ Fingerprint Clearance Card AZ Department of Public Safety (www.azdps.gov/services/fingerprint/)
- □ National Evaluation Series (NES) Passing scores on two examinations: Professional Knowledge and Mathematics Subject Knowledge (www.aepa.nesinc.com/)