



## 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**

| □ CSC 127A (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 124/125</b> (5/3) | ☐ <b>MATH 355</b> (3)                | ☐ <b>MATH 404</b> (3)                      |
| Calculus I                  | Analysis of Ordinary Diff. Equations | History of Mathematics                     |
| ☐ <b>MATH 129</b> (3)       | □ <b>MATH 362</b> (3)                | ☐ <b>MATH 315</b> (3)                      |
| Calculus II                 | Introduction to Probability Theory   | 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**

| ☐ <b>MATH 205</b> (3)                                 | □ LRC 435 (3)  |
|---|--|
| Teaching Mathematics                                  | Content Area Literacy in a Multicultural School      |
| □ STCH 310 (3)  | ☐ <b>MATH 406A</b> (4)                               |
| Adolescent Development and Learning                   | Curriculum and Assessment in Secondary School        |
| □ LCEV 408 (3)  | Mathematics  |
| Structured English Immersion Foundations (UAS online) |  |
| □ LCEV 416 (3)  | ☐ <b>MATH 406B</b> (4)                               |
| Structured English Immersion Methods (UAS online)     | Methods of Teaching Mathematics in Secondary Schools |
| □ SERP 301B (2)                                       | ☐ <b>MATH 494C</b> (12)                              |
| Mainstreaming – Secondary (Special Education)         | Student Teaching                                     |

#### **Additional Certification Requirements**

- ☐ Six units of SEI coursework May 2011
- $\square$  U.S. and Arizona Constitutions (choose one of three options):
  - (1) UA Coursework: POL 210 (US & AZ Constitution) or POL 201 (U.S.) and 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.)
- □ **Fingerprint Clearance Card** obtain fingerprint clearance background check <u>before taking MATH 406A</u> from the AZ Dept. of Public Safety: www.azdps.gov/reports/fingerprint/faq/default.asp
- □ **Arizona Educator Proficiency Assessments (AEPA) -** Pass the Professional Knowledge **and** Subject Knowledge (Mathematics) portions: *www.aepa.nesinc.com*