# The Bachelor of Arts in Mathematics <br> <br> Education Emphasis <br> <br> Education Emphasis <br> Four-Year Plan for Catalog Year 2022 

## THIS IS A SAMPLE PROGRAM. EACH STUDENT SHOULD CONSULT A DEPARTMENT ADVISOR TO PREPARE A PROGRAM THAT FITS THEIR INDIVIDUAL BACKGROUND AND ACADEMIC NEEDS.

| Fall Semester |  |
| :--- | ---: |
| Freshman Year |  |
|  |  |
| MATH 122A \& B | 5 |
| ENGL 101 or 107 or 109H | 3 |
| GE Core | 3 |
| GE Core | 3 |
| MATH 195M ${ }^{2}$ | 1 |
| UNIV 101 |  |
|  | Total |
|  |  |

MATH 1293
CSC 110 or ISTA $130^{1} 4$
ENGL 102 or 1083
GE Core 3
GE Core 3
Total 16

MATH 315 3
MATH 3553
EDP 3013
GE Core 3
Second Language $\quad$ Total $\frac{4}{16}$

MATH 3613
MATH 406A 4
SERP 4003
TLS 435 3
Second Language $\quad$ Total $\frac{4}{17}$

## Senior Year

| MATH 404 | 3 | MATH 494C |
| :--- | :---: | :---: |
| MATH 406B | 4 |  |
| MATH 407 | 3 |  |
| POL 2104 | 3 |  |
| GE Core | 3 |  |
| UNIV 301 | Total $\frac{1}{\mathbf{1 7}}$ | Total $\mathbf{1 5}$ |

This degree program requires at least 120 total units, including 42 upper division units ( $\mathbf{3 0 0} \mathbf{- 4 0 0}$ level)
${ }^{1}$ CSC 110, ISTA 130, ECE 175, or CHEE 205 are recommended for most math majors. Other courses that can be used are: CSC 120, MIS 301, NSCS 311, and PHYS 305. These latter courses may have additional eligibility criteria.
${ }^{2}$ MATH 195M is an optional one-unit colloquium for new majors. Other programs, including Honors, ASEMS, and more, may require 1 unit colloquia in certain semesters.
${ }^{3}$ MATH 396L is a 1 -unit supplement to 323 and is required for students earning a $C$ or lower in 313 . Students who earn a D in 313 must take another proof-based course before 323.
${ }^{4}$ The Constitution Requirement for certification is fulfilled by completing one of: (1) POL 210 at UA; (2) POS 210 at Pima Community College; (3) Equivalent course from another AZ community college; (4) Attaining a passing score on the AEPA AZ and US Constitution exams. Notify the Math Center if POL 210 fills up before your priority registration opens for your final semester before student teaching.
NOTES: Fourth semester proficiency in a second language is required for the BA degree.
See an academic advisor if you have questions regarding the Mid-Career Writing Assessment requirement.
B.A. / B.S. in Mathematics - Mathematics Education Emphasis - Courses \& Prerequisites

| MATHEMATICS COURSES | SEM. OFFERED | PREREQUISITES | MATHEMATICS TEACHING AND LEARNING COURSES | SEM. OFFERED | PREREQUISITES |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ISTA 130 or CSC 110 Intro. to Computer Science | Fall, Spring | MATH 112: required for CSC, recommended for ISTA | MATH 205* (16 hrs FP) Teaching Mathematics | Fall | MATH 122B or 125; MATH 129 or consent of instructor; Sophomore standing |
| MATH 122A\&B or 125 Calculus I | Fall, Spring, Summer | MATH 120R $\dagger$ or placement | $\square$ EDP 301 <br> Educational Psychology and Child and Adolescent Development | Fall, Spring, Summer |  |
| $\begin{aligned} & \hline \square \text { MATH } 129 \\ & \text { Calculus II } \\ & \hline \end{aligned}$ | Fall, Spring, Summer | MATH 122B $\dagger$ or MATH $125{ }^{\dagger}$ | $\square$ SERP 400 <br> Survey of Exceptional Students | Fall, Spring, Summer |  |
| - MATH 223 <br> Vector Calculus | Fall, Spring, Summer | MATH 129† | $\square$ LCEV 408 <br> Structured English Immersion (SEI) | Fall, Spring, Summer | Contact College of Education if unable to enroll |
| MATH 313† <br> Intro to Linear Algebra | Fall, Spring, Summer | MATH 129† | TLS 435 <br> Content Area Literacy | Spring |  |
| $\square$ MATH 355 <br> Analysis of Ord. Diff. Eq. | Fall, Spring | MATH 313 | $\square$ MATH 406A*(30 hrs FP) Curriculum and Assessment in Secondary School Mathematics | Spring | MATH 205, EDP 301, MATH 330. MATH 315 \& MATH 361 may be taken concurrently. GPA $\geq 2.5$ in MATH $122 \mathrm{~A} \& \mathrm{~B} / 125,129,223$ |
| $\square$ MATH 361 <br> Statistics for Teaching | Spring | MATH 223; 313 recommended | MATH 406B*(30 hrs FP) Methods of Teaching Mathematics in Secondary Schools | Fall | MATH 406A <br> GPA $\geq 2.5$ in MATH 122 A\&B/125, 129, 223 |
| $\square$ MATH 330 <br> Topics in Geometry | Fall | MATH 313 | MATH 494C* (80 days FP) <br> Student Teaching | Fall, Spring | All mathematics content \& pedagogy courses Overall GPA $\geq 2.0$; <br> Major GPA $\geq 2.0$; Pedagogy GPA $\geq 2.5$ |
| $\square$ MATH 315 <br> Intro. to Number Theory and Modern Algebra | Spring | MATH 313 | *Course has a Field Practicum (FP) and a Fingerprint Clearance Card (FCC) requirement from the AZ Dept. of Public Safety |  |  |
| MATH 323 <br> Formal Mathematical Reasoning | Fall, Spring, Summer | MATH 313** | $\dagger$ Grade of C or better required in this prerequisite. $\ddagger$ MATH 313 has replaced 215; students with credit for 215 will satisfy this requirement and qualify for courses requiring 313 as prerequisite. ${ }^{* *}$ Students who earn a C in 313 must enroll in MATH 396L with 323. Students who earn a D in 313 need to take 315 prior to $323+396 \mathrm{~L}$. |  |  |
| $\square$ MATH 404 <br> History of Mathematics | Fall | MATH 313 | Choose ONE option for AZ \& US Constitutions (for AZ Certification): |  |  |
| MATH 407 <br> Synthesis of Mathematical Concepts | Fall | MATH 330, MATH 323 and (MATH 315 or MATH 415A) | ```\squareUA- POL 210 \square PCC- POS 210 \square Equivalent course from another institution \square AEPA Exams - (http://www.aepa.nesinc.com)``` |  |  |

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