

The Bachelor of Arts in Mathematics <u>Education Emphasis</u> 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			Spring Semester		
Freshman Year			. 0		
MATH 122A & B		5	MATH 129		3
ENGL 101 or 107 or 109H		3	CSC 110 or ISTA 130^{1}		4
GE Core		3	ENGL 102 or 108		3
GE Core		3	GE Core		3
MATH 195M ²		1	GE Core		3
UNIV 101		1			
	Total	16		Total	16
Sophomore Year					
MATH 205		3	MATH 315		3
MATH 223		4	MATH 355		3
MATH 313		3	EDP 301		3
GE Core		3	GE Core		3
Second Language		4	Second Language		4
	Total	17		Total	16
Junior Year					
MATH 330		3	MATH 361		3
MATH 323		3	MATH 406A		4
MATH 396L ³		1	SERP 400		3
LCEV 408		3	TLS 435		3
Second Language		4	Second Language		4
	Total	14		Total	17
Senior Year					
MATH 404		3	MATH 494C		15
MATH 406B		4			
MATH 407		3			
POL 210 ⁴		3			
GE Core		3			
UNIV 301		1			
	Total	17		Total	15

This degree program requires at least 120 total units, including 42 upper division units (300-400 level)

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.

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.



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† or placement	☐ EDP 301 Educational Psychology and Child and Adolescent Development	Fall, Spring, Summer			
□ MATH 129 Calculus II	Fall, Spring, Summer	MATH 122B† or MATH 125†	☐ SERP 400 Survey of Exceptional Students	Fall, Spring, Summer			
□ MATH 223 Vector Calculus	Fall, Spring, Summer	MATH 129†	☐ LCEV 408 Structured English Immersion (SEI)	Fall, Spring, Summer	Contact College of Education if unable to enroll		
□ MATH 313‡ Intro to Linear Algebra	Fall, Spring, Summer	MATH 129†	□ TLS 435 Content Area Literacy	Spring			
□ MATH 355 Analysis of Ord. Diff. Eq.	Fall, Spring	MATH 313	☐ 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 ≥ 2.5 in MATH 122A&B/125, 129, 223		
□ MATH 361 Statistics for Teaching	Spring	MATH 223; 313 recommended	☐ MATH 406B*(30 hrs FP) Methods of Teaching Mathematics in Secondary Schools	Fall	MATH 406A GPA ≥ 2.5 in MATH 122A&B/125, 129, 223		
□ MATH 330 Topics in Geometry	Fall	MATH 313	□ MATH 494C*(80 days FP) Student Teaching	Fall, Spring	All mathematics content & pedagogy courses Overall GPA \geq 2.0; Major GPA \geq 2.0; Pedagogy GPA \geq 2.5		
☐ MATH 315 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 Formal Mathematical Reasoning	Fall, Spring, Summer	MATH 313**	†Grade of C or better required in this prerequisite. ‡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 + 396L.				
☐ MATH 404 History of Mathematics	Fall	MATH 313	Choose ONE option for AZ & US Constitutions (for AZ Certification):				
□ MATH 407 Synthesis of Mathematical Concepts	Fall	MATH 330, MATH 323 and (MATH 315 or MATH 415A)	□ UA- POL 210 □ PCC- POS 210 □ Equivalent course from another institution □ AEPA Exams – (http://www.aepa.nesinc.com)				