

CURRICULUM GUIDE
Mathematics, B.S. (Mathematics Teaching Concentration)
2021-2022

Website: www.math.eku.edu
 Email Contact: shane.redmond@eku.edu

Department of Mathematics and Statistics
 521 Lancaster Ave.
 313 Wallace Bldg.
 Richmond, KY 40475
 859-622-5942

The schedule below is an **EXAMPLE** of how you can arrange your class schedule. You are strongly advised to meet with the Chair of the Department Mathematics & Statistics or with your academic advisor prior to registration for appropriate placement in MAT courses.

	Fall Semester	Spring Semester	Course Number	Course Name
Freshman Year	SCO 100M	1	CED 100	0
	⊛ MAT 234	4	EDF 203	3
	⊞ STA 270 (fulfills Gen. Ed. 2)	4	⊞ SED 104 (fulfills Gen. Ed. 6)	3
	⊛ Gen. Ed. 1A (ENG 101)	3	MAT 239	3
	Gen. Ed. 5B (Soc. & Behav. Sci.)	3	MAT 244	4
			⊛ Gen. Ed. 1B (ENG 102)	3
	TOTAL	15	TOTAL	16
Sophomore Year	MAT 254	4	CED 200	0
	MAT 301	3	EDF 204	2
	⊛ Gen. Ed. 1C (Oral Comm.)	3	EDF 219	3
	Gen. Ed. 4 (Nat. Sci.)	3	MAT 306 (spring only)	3
	Gen. Ed. 6 (Diversity)	3	CSC 160, 177 or 190	3
	⊛ 30 hrs complete + apply to professional education program		Gen. Ed. 3B (Humanities)	3
			Gen. Ed. 4 (Nat. Sci.)	3
TOTAL	16	TOTAL	17	
Junior Year	CED 300	0.5	EDF 413	3
	EDC 300	3	EMS 490	3
	EMS 300W	3	CED 400	0.5
	MAT 308 (fall only)	3	MAT 315 (spring only)	3
	Gen Ed. 5A (History)	3	MAT 380 (spring only)	3
	‡ Combination 1: General Combination elective or		‡ Combination 1: Free Elective or	
	Combination 2: STA Course #1	3	Combination 2: STA Course #2	3
TOTAL	15.5	TOTAL	15.5	
Senior Year	ESE/MAT 550 (fall only)	3	CED 499 (ACCT)	9
	CED 450 (fall only)	1	EMS 474	3
	MAT 334 (fall only)	3		
	MAE 475 (fall only)	3		
	Gen Ed. 3A (Arts)	3		
APPLY FOR STUDENT TEACHING				
TOTAL	13	TOTAL	12	
TOTAL HOURS TO DEGREE COMPLETION		120		

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100M	Student Success Seminar in Mathematics and Statistics (1)
CORE COURSE REQUIREMENTS (24)	
MAT 234	Calculus I (4)
MAT 239	Linear Algebra and Matrices (3)
MAT 244	Calculus II (4)
MAT 254	Calculus III (4)
MAT 301	Logic and Set Theory (3)
MAT 308	Modern Algebra I (3)
MAT 315	Introduction to Analysis (3)
MATHEMATICS TEACHING CONCENTRATION REQUIREMENTS (15-18)	
MAE 475	Math Teaching Senior Seminar (3)
MAT 306	Discrete Mathematics (3)
MAT 334	Modern College Geometry (3)
MAT 380	Mathematics in a Historical Setting (3)
‡ PLUS ONE (1) of the following combinations:	
▶ Combination 1: (general):	
▼ PLUS THREE (3) HOURS selected from the following (general combination elective):	
CSC 320	Introduction to Algorithms (3)
Any MAT course numbered 300 or above (except for 301, 303, 306, 308, 315, 334, 349, or 380) or any STA course numbered 300 or above (except for 349 and 500).	
▶ Combination 2: (statistics):	
STA 340	Applied Regression Analysis (3)
STA 470 or	Applied Probability (3)
STA 520	Mathematical Statistics I (3)
SUPPORTING COURSE REQUIREMENTS (MATHEMATICS TEACHING) (4)	
CSC 170 or	Intro to Game Programming (3)
CSC 177 or	Introduction to Visual Basic (3)
CSC 190	Object-Oriented Programming I (3)
⊞ STA 270	Applied Statistics (4)
PROFESSIONAL EDUCATION REQUIREMENTS (37)	
EDC 300	Differentiation in Inclusive Classrooms (3)
EDF 203	Philosophical & Historical Found. of Ed. (3)
EDF 204	Emerging Instructional Technologies (2)
EDF 219	Human Development and Learning (3)
EDF 413	Assessment in Education (3)
EMS 300W	Curriculum & Instructional Design (3)
EMS 474	Teaching Content Reading (3)
EMS 490	Classroom & Behavior Management in P-12 (3)
▲ ESE 550/MAT 550	Teaching Math. in the Secondary Schools (3)
⊞ SED 104	Introduction to Special Education (3)
PLUS ELEVEN (11) HOURS of Clinical Experiences to include:	
CED 100	Clinical I: Intro to the Education Prof. (0)
CED 200	Clinical II: Understanding the Learner (0)
CED 300	Clinical III: curriculum and Instruct. Des. (.5)
CED 400	Clinical IV: Diagnosis & Perception (.5)
CED 450	Clinical V: Practicing Teaching (1)
CED 499	Supervised Student Teaching P-12 (9)
FREE ELECTIVES (0-3)	

* PREREQUISITES: Consult with your advisor and/or the University catalog regarding prerequisites for upper division MAT courses.

⊛ Student must have completed 30 hours by the end of the second semester and apply for admission to Professional Education Program.

⊞ Must be completed before enrolling in CED 300 and applying to the Teacher Ed. program.

▲ ESE 550 and MAT 550 are cross listed.

Upper division courses: All students are required to have a minimum of 42 hrs. upper division (300 level or above) courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education Requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number (e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Mathematics majors with a Mathematics Teaching Concentration will fulfill ACCT with-CED 499. (Credit hours may be incorporated into program requirements.)