

CURRICULUM GUIDE
Mathematics, B.S. (Mathematics Teaching Concentration)
2018-2019

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

* **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.

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100T	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) (spring only)
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 300	Introduction to Numerical Methods (3)
CSC 320	Introduction to Algorithms (3)
Any MAT course numbered 300 or above (except for 303, 349, 475, 501, 502) 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 STA 520	Applied Probability (3) Mathematical Statistics I (3)
SUPPORTING COURSE REQUIREMENTS (MATHEMATICS TEACHING) (4)	
CSC 160 or CSC 177 or CSC 190	Introduction to Programming (3) Introduction to Visual Basic (3) 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)	

▲ 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: Math Teaching Mathematics majors with a Mathematics Teaching Concentration will fulfill ACCT with CED 499. (Credit hours may be incorporated into program requirements.)