

CURRICULUM GUIDE
Mathematics/Teaching, B.S. (Mathematics Teaching Concentration)
2017-2018

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

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 majors will fulfill ACCT with CED 499. (Credit hours may be incorporated into program requirements.)

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100T	Student Success Seminar in Mathematics and Statistics (1)
CORE COURSE REQUIREMENTS (29)	
MAT 234 <i>or</i> MAT 234H	Calculus I (4)
MAT 239	Honors Calculus I (4)
MAT 244 <i>or</i> MAT 244H	Linear Algebra and Matrices (3)
MAT 301	Calculus II (4)
MAT 306	Honors Calculus II (4)
MAT 308	Logic and Set Theory (3)
MAT 334	Discrete Mathematics (3)
MAT 380	Modern Algebra I (3)
MAE 475	Modern College Geometry (3)
	Mathematics in a Historical Setting (3)
	Math Teaching Senior Seminar (3)
MATHEMATICS TEACHING CONCENTRATION REQUIREMENTS (10-13)	
MAT 254 <i>or</i> MAT 254H	Calculus III (4)
	Honors Calculus III (4)
‡ PLUS ONE (1) of the following combinations:	
▶ Combination 1: (general):	
MAT 315	Introduction to Analysis (3)
♥ PLUS THREE (3) HOURS selected from the following (core 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, 500, 503).	
▶ Combination 2: (statistics):	
STA 340	Applied Regression Analysis (3)
STA 375 <i>or</i> STA 585	Sampling Methods (3)
STA 470 <i>or</i> STA 520	Experimental Design (3)
	Applied Probability (3)
	Mathematical Statistics I (3)
SUPPORTING COURSE REQUIREMENTS (MATHEMATICS TEACHING) (4)	
CSC 160 <i>or</i> CSC 177 <i>or</i> 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.	