CURRICULUM GUIDE
Mathematics, B.S. (General Mathematics Concentration)
2023-2024
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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 100M	1	MAT 239	3
	CSC 170, 174, 189 *or* 190	3	MAT 244	4
	MAT 234	4	Gen. Ed. 1B (*ENG 102*)	3
	ᴳ STA 270 (*fulfills Gen. Ed. 2*)	4	Gen Ed. 3A (*Arts*)	3
	Gen. Ed. 1A (*ENG 101*)	3	Gen Ed. 4 (*Nat. Sci.*)	3
	TOTAL	**15**	**TOTAL**	**16**
Sophomore Year	MAT 254	4	MAT 315 (*spring only*)	3
	MAT 301	3	Gen. Ed. 3B (*Humanities*)	3
	Gen. Ed. 1C (*Oral Comm*)	3	Gen. Ed. 5B (*Soc. & Behav. Sci.*)	3
	Gen. Ed. 4 (*Nat. Sci.*)	3	Gen. Ed. 6 (*Diversity*)	3
	Gen. Ed. 6 (*Diversity*)	3	Free Elective	3
	TOTAL	**16**	**TOTAL**	**15**
Junior Year	MAT 308 (*fall only*)	3	◈ ✪ MAT 408 (*spring only*) (*or* MAT 505 or higher (*restricted elective*)	3
	◈✪ MAT 415 (*fall only*) (*or* MAT 505 or higher (*restricted elective*)	3	‡ CSC 320, MAT, *or* STA 300+ level concentration elective	3
	Gen Ed. 5A (*History*)	3	Free Elective (*upper division*)	3
	Free Elective (*upper division*)	3	Free Elective (*upper division*)	3
	Free Elective	3	Free Elective	3
	TOTAL	**15**	**TOTAL**	**15**
Senior Year	‡ CSC 320, MAT, *or* STA 300+ level concentration elective		MAT 498 *or* STA 498	1-3
	Free Elective (*upper division*)	3	‡ CSC 320, MAT, *or* STA 300+ level concentration elective	
	Free Elective	3	Free Elective (*upper division*)	3
	Free Elective	3	Free Elective	3
	Free Elective	3	Free Elective	3
		3		1-3
		3		
	TOTAL	**15**	**TOTAL**	**13**
			TOTAL HOURS TO DEGREE COMPLETION	**120**

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

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. If 300-level classes are taken for Gen. Ed., they can be used to fulfill the 42 hours instead of upper division free electives.*

Refer to the University Catalog at http://www.catalogs.eku.edu/ regarding University and General Education Requirements.

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) (fall only)*
MAT 315	**Introduction to Analysis** *(3) (Spring only)*
GENERAL MATHEMATICS CONCENTRATION REQUIREMENTS (*16-18***)**	
MAT 408 *or*	**Modern Algebra II** *(3)*
MAT 415	**Analysis** *(3)*
MAT 498 *or*	**Mathematics Capstone** *(1)*
STA 498	**Statistics Capstone** *(3)*
✪ **PLUS ONE (1) COURSE selected from (***restricted elective***):**	
◈ **MAT 408**	**Modern Algebra II** *(3)*
◈ **MAT 415**	**Analysis** *(3)*
OR any course numbered 505 or above (*507 only with Departmental approval***).**	
‡ **PLUS NINE (9) HOURS selected from (***concentration elective***):**	
CSC 320	**Introduction to Algorithms** *(3)*
Any MAT course numbered 300 or above (*except for 301, 303, 308, 315, and 349***) or any STA course numbered 300 or above (***except for 349***). (***No more than* SIX (6) HOURS** *of STA courses may be used to fulfill this requirement.***)**	
SUPPORTING COURSE REQUIREMENTS *(4)*	
CSC 170 *or*	**Intro to Game Programming** *(3)*
CSC 174 *or*	**Introduction to Programming for Science & Engineering** *(3)*
CSC 189 *or*	**Computing Concepts & Programming** *(3)*
CSC 190	**Object-Oriented Programming I** *(3)*
ᴳ **STA 270**	**Applied Statistics** *(4)*
FREE ELECTIVES *(37-39)*	

◈ *MAT 408* **or** *415 can be counted as either a concentration requirement or a restricted elective, but not both.*

ᴳ *Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.*

- No course may be used to satisfy more than one lettered category above.
- At least five upper-division courses which satisfy the major requirements (including core and concentration must be completed at EKU.
- Only courses completed with a grade of at least "C" will count toward the major requirements (including core and concentration)