

CURRICULUM GUIDE

Statistics, B.S.

2018-2019

Website: www.math.eku.edu

Email Contact: daniel.mundfrom@eku.edu

Department of Mathematics and Statistics

521 Lancaster Ave.

312 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	
Freshman Year	SCO 100T	1	STA 340	3
	STA 270 (<i>STA 270L recommended</i>)	4 (1)	MAT 239	3
	⁶ MAT 234 (<i>fulfills Gen. Ed. 2</i>)	4	MAT 244 <i>or</i> 244H	4
	Gen. Ed. 1A (<i>ENG 101</i>)	3	Gen. Ed. 1B (<i>ENG 102</i>)	3
	Gen. Ed. 5B (<i>Soc. & Behav. Sci.</i>)	3	Gen. Ed. 3A (<i>Arts</i>)	3
	TOTAL	15 (16)	TOTAL	16
Sophomore Year	† STA Restricted Elective	3	CSC 160, 177, <i>or</i> 190	3
	MAT 254	4	Gen. Ed. 3B (<i>Humanities</i>)	3
	Gen. Ed. 1C (<i>Oral Comm.</i>)	3	Gen. Ed. 4 (<i>Nat. Sci.</i>)	3
	Gen. Ed. 4 (<i>Nat. Sci.</i>)	3	Gen. Ed. 5A (<i>History</i>)	3
	Gen. Ed. 6 (<i>Diversity</i>)	3	Gen. Ed. 6 (<i>Diversity</i>)	3
	TOTAL	16	TOTAL	15
Junior Year	STA 585	3	‡ CSC/MAT/STA Elective (<i>upper division</i>)	3
	Free Elective (<i>upper division</i>)	3	† ⁶ STA Restricted Elective	3
	Free Elective	3	Free Elective (<i>Writing Intensive Course recommended</i>)	3
	Free Elective	3	Free Elective (<i>upper division</i>)	3
	Free Elective	3	Free Elective (<i>upper division</i>)	3
	TOTAL	15	TOTAL	15
Senior Year	ACCT (Tutoring)	0	STA 521 (<i>spring only</i>)	3
	STA 520 (<i>fall only</i>)	3	STA 498 (<i>spring only</i>)	1
	‡ CSC/MAT/STA Elective (<i>upper division</i>)	3	Free Elective (<i>ACCT</i>) (<i>upper division</i>)	3
	Free Elective (<i>upper division</i>)	3	Free Elective (<i>upper division</i>)	3
	Free Elective (<i>upper division</i>)	3	Free Elective	3
	Free Elective	3		
TOTAL	15	TOTAL	13	
TOTAL HOURS TO DEGREE COMPLETION		120		

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100T	Student Success Seminar in Mathematics and Statistics (1)
CORE COURSE REQUIREMENTS (40)	
MAT 239	Linear Algebra and Matrices (3)
MAT 244	Calculus II (4)
MAT 254	Calculus III (4)
STA 270	Applied Statistics I (4)
STA 340	Applied Regression Analysis (3)
STA 498	Statistics Capstone (1)
STA 520	Mathematical Statistics I (3)
STA 521	Mathematical Statistics II (3)
STA 585	Experimental Design (3)
†PLUS SIX (6) HOURS selected from (STA Restricted Elective) (‡At least 3 hours must come from either STA 575 or 580):	
STA 470	Applied Probability (3)
STA 375	Sampling Methods (3)
STA 380	Nonparametric Statistics (3)
STA 570	Quality Control and Reliability (3)
STA 575	Statistical Methods Using SAS (3)
STA 580	R and Introductory Data Mining (3)
Must achieve a cumulative GPA of 2.0 in these STA courses.	
‡ PLUS SIX (6) HOURS of CSC/MAT/STA courses numbered 300 or above (excluding any 349 course, CSC 305, 306, MAT 303, 475, 501, 502, STA 500 and 503).	
SUPPORTING COURSE REQUIREMENTS (4)	
CSC 160 <i>or</i>	Introduction to Programming (3)
CSC 177 <i>or</i>	Introduction to Visual Basic (3)
CSC 190	Object-Oriented Programming I (3)
⁶ MAT 234	Calculus I (4)
FREE ELECTIVES (39)	

⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement if a lower level MAT class is not taken prior to MAT 234.

* **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. 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: Statistics majors will fulfill ACCT with any of the following: a 349 Co-op experience in any subject area, a program-approved service-learning course, a program-approved undergraduate scholarly or creative activity, HON 420 with a program approved thesis topic, a program-approved leadership experience, or a program-approved study abroad experience. (Credit hours are incorporated into program requirements).