

MATHEMATICS MAJOR

Statistics Emphasis (BA/BS) (39 units)

Effective beginning Fall 2019
 An approved minor is required for this major

For students interested in a career as a statistician, demographer, specialist in marketing, quality control, or economics.

COURSES			OFFERED*	PRE-REQUISITE
<i>Major Requirements:</i>				
MATH 200	1 unit	Mathematics: Form and Function	E	CoReq: Math 253
MATH 253	5 units	Calculus and Analytic Geometry I (GM)	E	Math 152 or (Math 150 and 151) each with C or better
MATH 254	4 units	Calculus and Analytic Geometry II	E	Math 253 or (Math 250 and 151) or (Math 250 and 152) each with C or better
MATH 255	4 units	Calculus and Analytic Geometry III	E	Math 254 with C or better
MATH 263	1 unit	Introduction to R	E	CoReq: Math 250 or Math 253
MATH 280	3 units	Discrete Mathematics	E	Math 250 with B or better or Math 253 with C or better
MATH 342	3 units	Applied Statistics	E	Math 250 or 253 with C or better and Math 263, CS172, or CS174
MATH 343	3 units	Applied Probability: Theory and Practice	F	Math 250 or 253 with C or better and Math 263, CS172, or CS174
MATH 355	3 units	Matrices and Linear Algebra	E	Math 250 with B or better or Math 253 with C or better
MATH 420	3 units	Applied Regression Analysis	F	Math 342 or consent of instructor
<i>Select three courses from the following list:</i>				
MATH 301	3 units	Introduction to Analysis	E	Math 254 with C or better and Math 280
MATH 362	3 units	Applied Nonparametric Statistics	SOY	Math 342 with C or better or Math 343 with C or better
MATH 423	3 units	Experimental Design and Analysis of Variance	SEY	Math 342 with C or better
MATH 430	3 units	Sampling, Design, and Analysis of Survey Data	SOY	Math 342 with C or better
MATH 442	4 units	Mathematical Statistics	S	Math 255 with C or better and Math 343 with C or better
ECON 446	3 units	Advanced Econometrics		
PSYCH 416 -or-	3 units	Advanced & Multivariate Data Analysis - Life Sciences		
BIO 416	3 units	Advanced & Multivariate Data Analysis - Life Sciences		
<i>Unique Computer Science Requirement (3 units) – select one of the following:</i>				
COMPSCI 170	3 units	Introduction to Python Programming		
COMPSCI 171	3 units	Introduction to Visual Basic Programming		
COMPSCI 172	3 units	Introduction to JAVA (GM)		
COMPSCI 174	3 units	Introduction to C++ (GM)		
COMPSCI 220	3 units	Intermediate JAVA		
COMPSCI 222	3 units	Intermediate C++		
COMPSCI 347	3 units	Scientific Computing		
<i>Unique Writing Requirement (3 units) – select one of the following:</i>				
ENG 370	3 units	Advanced Composition		
ENG 372	3 units	Technical and Scientific Writing		

MILESTONES

Math Exit Interview
 GPA Requirement of 2.0

* E = Every Semester
 S = Every Spring
 F = Every Fall
 SOY = Every Odd Spring
 SEY = Every Even Spring
 FOY = Every Odd Fall
 FEY = Every Even Fall