MATHEMATICS MAJOR REQUIREMENTS

The Department of Mathematics offers the mathematics major with five emphases: Applied, Pure, Statistics, Actuarial, and Secondary Education. *The Computer Mathematics major was phased out Spring 2014.* Following is a list of the required courses for the majors, their number of units, prerequisites and semester offered. **An approved minor is required with each major.**

Statistics Emphasis (38 units)

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

<u>For students who declare Fall 2016 or later:</u>

Courses			**Offered**	**Prerequisite**
M253	5 units	Calculus and Analytic Geometry I	E	M152 with C or better
M254	5 units	Calculus and Analytic Geometry II	E	M250 with B or M253 with C or better
M255	3 units	Calculus and Analytic Geometry III	E	M254 with C or better
M280	3 units	Discrete Mathematics	E	M250 with B or M253 with C or better
M301	3 units	Introduction to Analysis	E	M255 and M280
M342	3 units	Applied Statistics	F	M250 or M253 or instructor consent
M355	3 units	Matrices and Linear Algebra	E	M253 with C or better or M250 with B or better
M420	3 units	Applied Regression Analysis	SEY	M342 or instructor consent
M441	3 units	Probability Theory	F	M255 with C or better

Select two courses (at least one course must be MATH) from the following list:

M442	4 units	Mathematical Statistics	SEY	M441 with C or better
M464	3 units	Advanced Calculus	SEY	M301
ECON446	3 units	Advanced Econometrics		
BIO416	3 units	Advanced and Multivariate Data Analysis for the Life Sciences		
PSYCH416	3 units	Advanced and Multivariate Data Analysis for the Life Sciences		

Unique Requirements:
Three units of Computer Science numbered COMPSCI 170 or above, *except* COMPSCI 181
Three units of English 370 Advanced Composition *Or* English 372 Technical Writing

<u>For students who declared before Fall 2016, the emphasis courses are:</u>

Courses			**Offered**	**Prerequisite**
M253	5 units	Calculus and Analytic Geometry I	E	M152 with C or better
M254	5 units	Calculus and Analytic Geometry II	E	M250 with B or M253 with C or better
M255	3 units	Calculus and Analytic Geometry III	E	M254 with C or better
M280	3 units	Discrete Mathematics	E	M250 with B or M253 with C or better
M301	3 units	Introduction to Analysis	E	M255 and M280
M342	3 units	Applied Statistics	F	M250 or M253 or instructor consent
M346	3 units	Theory of Interest	S	M254 with C or better
M355	3 units	Matrices and Linear Algebra	E	M253 with C or better or M250 with B or better
M441	3 units	Probability Theory	F	M255 with C or better
M442	4 units	Mathematical Statistics	SEY	M441 with C or better
M452	3 units	Introduction to Abstract Algebra	E	M280 or instructor consent

Unique Requirements:
Three units of Computer Science numbered COMPSCI 170 or above, *except* COMPSCI 181
Three units of English 370 Advanced Composition *Or* English 372 Technical Writing

Milestones: Major Field Test, 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

Updated 4/26/16