

# Applied Mathematics Option

M 171Q	Calculus I	4
or M 181Q	Honors Calculus I	
M 172Q	Calculus II	4
or M 182Q	Honors Calculus II	
M 221	Introduction to Linear Algebra	3
M 242	Methods of Proof	3
M 273Q	Multivariable Calculus	4
or M 283Q	Honors Multivariable Calculus	
M 274	Introduction to Differential Equation	4
or M 284	Honors Introduction to Differential Equations	
M 348	Techniques of Applied Math I	3
M 349	Techniques of Applied Mathematics II	3
M 386R	Software Applications in Mathematics	3
M 441	Numerical Linear Algebra & Optimization	3
M 442	Numerical Solution of Differential Equations	3
STAT 332	Statistics for Scientists and Engineers	3
Choose four from the following math or statistics electives: *		12
M 330	History of Mathematics	
M 333	Linear Algebra	
M 383	Introduction to Analysis I	
M 384	Introduction to Analysis II	
M 430	Mathematical Biology	
M 431	Abstract Algebra I	
M 450	Applied Mathematics I	
M 451	Applied Mathematics II	
M 454	Introduction of Dynamical Systems I	
M 455	Introduction to Dynamical Systems II	
M 472	Introduction to Complex Analysis	
STAT 421	Probability Theory	
STAT 422	Mathematical Statistics	
PHSX 220	Physics I (w/ calculus)	4
PHSX 222	Physics II (w/ calculus) **	4
PHSX 224	Physics III **	4
<b>Total Credits</b>		<b>64</b>

\* Six of these 12 credits must be from M 430, M 450, M 451, M 454, M 455.

\*\* PHSX 220, PHSX 222, and PHSX 224 are required. However, with the agreement of the student's advisor, PHSX 224 may be replaced by PHSX 301, or both PHSX 222 and PHSX 224 may be replaced by a two-course sequence in another mathematical application area.

A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 and above. Core 2.0 must be completed for graduation.

Freshman Year	Credits	
	Fall	Spring
CLS 101US - Knowledge and Community or COM 110US -	3	

M 171Q - Calculus I or M 181Q - Honors Calculus I	4	
PHSX 220 - Physics I (w/ calculus)	4	
University Core and Electives	4	
WRIT 101W - College Writing I		3
M 172Q - Calculus II or M 182Q - Honors Calculus II	4	
PHSX 222 - Physics II (w/ calculus)	4	
University Core and Electives	4	
<b>Year Total:</b>	<b>15</b>	<b>15</b>
<b>Sophomore Year</b>		<b>Credits</b>
	<b>Fall</b>	<b>Spring</b>
M 221 - Introduction to Linear Algebra	3	
M 273Q - Multivariable Calculus or M 283Q - Honors Multivariable Calculus	4	
PHSX 224 - Physics III	4	
University Core and Electives	4	
M 274 - Introduction to Differential Equation or M 284 - Honors Introduction to Differential Equations		4
M 242 - Methods of Proof		3
University Core and Electives		8
<b>Year Total:</b>	<b>15</b>	<b>15</b>
<b>Junior Year</b>		<b>Credits</b>
	<b>Fall</b>	<b>Spring</b>
M 348 - Techniques of Applied Math I	3	
STAT 332 - Statistics for Scientists and Engineers	3	
Math or Stat Elect (See List Above)	3	
University Core and Electives	6	
M 349 - Techniques of Applied Mathematics II		3
M 386R - Software Applications in Mathematics		3
Math or Stat Elect (See List Above)		3
University Core and Electives		6
<b>Year Total:</b>	<b>15</b>	<b>15</b>
<b>Senior Year</b>		<b>Credits</b>
	<b>Fall</b>	<b>Spring</b>
M 441 - Numerical Linear Algebra & Optimization	3	
Math or Stat Elect (See List Above)	3	
University Core and Electives	9	
M 442 - Numerical Solution of Differential Equations		3
Math or Stat Elect (See List Above)		3
University Core and Electives		9
<b>Year Total:</b>	<b>15</b>	<b>15</b>
<b>Total Program Credits:</b>		<b>120</b>

### **Font Notice**

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.