ACADEMIC ROADMAP
Applied Mathematics, B.S.
Updated Fall 2023

Freshman Year (30 credits)

FIRST SEMESTER

Course Title	Catalog Number	Prerequisite(s)
College Writing I (3)	CWP 101	
Calculus I (4)	MAT 161	MAT 124 or equivalent
Using Technology to Explore Calculus I (1)	MAT 163	
GE 23 courses (6 credits)		

SECOND SEMESTER

Course Title	Catalog Number	Prerequisite(s)
College Writing II (3)	CWP 102	
Calculus II (4)	MAT 162	MAT 161 with a C or better
Using Technology to Explore Calculus II (1)	MAT 164	MAT 163 with a C or better
GE 23 Natural Sciences & Scientific Reasoning (3)		
GE 23 courses (at least 6 credits)		

Notes and recommendations:
Attend at least one faculty office hour; visit Academic Commons (Math & Writing Centers, tutoring); view your degree audit sheet in Degree Works

Sophomore Year (60 credits)

THIRD SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Calculus III (4)	MAT 263	MAT 162 with a C or better
Using Technology to Explore Calculus III (1)	MAT 264	MAT 164 with a C or better
Computer Mathematic (3)	MAT 241	MAT 161 & MAT 163
GE 23 courses (9 credits)		

FOURTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Introduction to Linear Algebra (3)	MAT 202	MAT 161
Discrete Mathematics (3)	MAT 270	MAT 161
Mathematical Biology (3)	MAT 319	MAT 161
GE 23 Courses (6 credits)		

Notes and recommendations:
Form a study group; consider enrolling in a minor or certificate program

Junior Year (90 credits)

FIFTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Probability Theory (3)	MAT 381	MAT 162 and MAT 270
Differential Equations (3)	MAT 315	MAT 263
Mathematical Modeling (3)	MAT 318	MAT 162 and MAT 202
Upper division courses (6)		

SIXTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Mathematical Statistics (3)	MAT 382	MAT 263 and MAT 381
Introduction to Operations Research (3)	MAT 390	MAT 202 and MAT 270
Intermediate Differential Equations (3)	MAT 316	MAT 315
Upper division courses (6)		

Notes and recommendations:
Visit the Career Development Center; talk to your faculty advisor about graduate school options

Senior Year (120 credits)

SEVENTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Introduction to Real Analysis (3)	MAT 417	MAT 263
Upper division courses (12)		

EIGTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Complex Variables (3)	MAT 411	MAT 263
Capstone Research in Mathematics (3)	MAT 491	MAT 301 or MAT 417
Upper division courses (9)		

Notes and recommendations:
Apply for graduation; apply to graduate school, if applicable; visit the Career Development Center to have your resume reviewed