Mathematics, B.S., Applied Mathematics Concentration

303-556-3208 Science Building 1022

Catalog 11-12

This sheet applies to the 2011-2012 catalog *only*. It does not replace the full catalog or departmental advising sheets as official statements of requirements. Students with declared majors ***must*** work with a faculty advisor on course selection and sequencing to ensure a timely graduation.

General Studies	34 min
Major courses	42
Minor courses	18 min
Electives	26
Total to graduate (min. 40 hrs upper-division)	**120 min**

Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.

GENERAL STUDIES

Composition

___ ENG 1010-3 Freshman Comp: the Essay
___ ENG 1020-3 Freshman Comp: Anal., Rsrch & Docum.

Mathematics

___ MTH 1110-4 College Algebra or higher level math

Communications

___ -3

Historical

___ -3

Arts & Letters

___ -3
___ -3

Social Sciences

___ -3
___ -3

Natural Sciences

___ -3
___ -3

Multicultural Requirement

(may be satisfied within General Studies, major, minor or electives)

___ -3

MINOR (Required)

ELECTIVES

MAJOR COURSES

___ MTH 1410-4 Calculus I *
___ MTH 2410-4 Calculus II
___ MTH 2420-4 Calculus III
___ MTH 3100-3 Introduction to Mathematical Proofs

One of the following three courses:

___ CS 1050-4 Computer Science I
___ CSS 1247-4 Intro to Programming: Visual Basic
___ CSS 1510-4 Computer Programming: FORTRAN

All four of the following courses:

___ MTH 3140-4 Linear Algebra**
___ MTH 3210-4 Probability & Statistics
___ MTH 3420-4 Differential Equations
___ MTH 4480-4 Numerical Analysis I (Senior Experience)

At least one of the following sequences:

___ MTH 3420 & 3440 Differential Equations & Partial Differential Equations
___ MTH 4480 & 4490 Numerical Analysis I & II
___ MTH 4410 & 4420 Advanced Calculus I & II
___ MTH 4410 & 4450 Advanced Calculus I & Complex Variables

Additional hours from the following for a total of at least 42 hours:

___ MTH 3220-4 Design of Experiments
___ MTH 3250-4 Optimization Techniques I
___ MTH 3260-4 Optimization Techniques II
___ MTH 3440-4 Partial Differential Equations
___ MTH 4210-4 Probability Theory
___ MTH 4410-4 Advanced Calculus I ***
___ MTH 4420-3 Advanced Calculus II
___ MTH 4450-4 Complex Variables
___ MTH 4490-4 Numerical Analysis II

*Some sections of this course have a *Mathematica* component.
**See department for approved substitutions for MTH 3140.
***Students considering grad school in Mathematics

A grade of "C" or better is required in each course included in the major.