

Mathematics, B.A./B.S., Applied Mathematics Concentration

303-556-3208 Science Building 1022
School of Letters, Arts, and Sciences

Catalog 13-14

This sheet applies to the 2013-14 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	33 min	Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.
Major courses	42	
Minor	18 min	
Electives	27	
Total to graduate (min. 40 hrs upper division)	120 min	

*TO BE COMPLETED WITHIN FIRST 30 COLLEGE-LEVEL CREDIT HOURS

Written Communication

- ___ ENG 1010 (3 hrs.) Composing Arguments*
or ___ ENG 1008/1009 (6 hrs.) Freshman Comp: The Essay Part I & II*
 ___ ENG 1020 (3 hrs.) Freshman English: Anal., Rsrch. & Docum.
 (must be completed within 45 credit hours)

Quantitative Literacy*

- ___ MTH 1110-4 College Algebra or higher-level mathematics course

Oral Communication*

- ___ (3 hrs.)

Arts and Humanities

- ___ (3 hrs.)
 ___ (3 hrs.)

Historical

- ___ (3 hrs.)

Natural and Physical Sciences

- ___ (3 hrs.)
 ___ (3 hrs.)

Social and Behavioral Sciences I

- ___ (3 hrs.)

Social and Behavioral Sciences II

- ___ (3 hrs.)

Global Diversity

- ___ (3 hrs.) may be satisfied within General Studies

MAJOR CORE COURSES (Please see a Faculty Advisor)

All majors in mathematics are required to complete the following basic core of courses (with a required minimum grade of "C" in each of these courses).

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

Required Applied Mathematics Courses

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

One of the following three courses:

- ___ CS 1050 (4 crh) Computer Science 1
OR MTH 2510 (4 crh) Computer Programming with Mathematica
OR CSS 1510 (4 crh) Computer Programming: FORTRAN

One of the following sequences:

- ___ MTH 3420-Differential Equations **AND** MTH 3440-Partial Diff. Equations
 ___ MTH 4480-Numerical Analysis I **AND** MTH 4490-Numerical Analysis II
 ___ MTH 4410-Advanced Calculus I **AND** MTH 4420-Advanced Calculus II
 ___ MTH 4410-Advanced Calculus I **AND** MTH 4450-Complex Variables

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

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

MINOR (required)

___ - 3 Multicultural Requirement

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

ELECTIVES 27