

Mathematics, B.S., Computer Science 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	40
Minor in Computer Science (Required)	22
Electives	24
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

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

*Some sections of this course have a *Mathematica* component.

Computer Science Emphasis:

- ___ MTH 3140-4 Linear Algebra (see dept. for approved substitutions)
- ___ MTH 3210-4 Probability & Statistics
- ___ MTH 3420-4 Differential Equations
- ___ MTH 4480-4 Numerical Analysis I (Senior Experience)

Select two of the following courses:

- ___ MTH 3220-4 Design of Experiments
- ___ MTH 3440-4 Partial Differential Equations
- ___ MTH 4210-4 Probability Theory
- ___ MTH 4490-4 Numerical Analysis II

Select one of the following courses:

- ___ MTH 4290-1 Senior Statistics Project
- ___ MTH 4390-1 Mathematics Senior Seminar
- ___ MTH 4590-1 Applied Mathematics Senior Seminar

MINOR COURSES (Required for the Computer Science Concentration)

- ___ CS 1050-4 Computer Science 1
- ___ CS 2050-4 Computer Science 2
- ___ CS 3210-4 Principles of Programming Languages
- ___ CS 3240-2 Introduction to the Theory of Computation
- ___ CS 4050-4 Algorithms & Algorithm Analysis
- ___ CS 4250-4 Software Engineering Principles

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