Computer Science, B.S.
303-556-3208 Science Building 1022
School of Letters, Arts, & 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: 36-38
- Major courses: 50
- Required Math minor: 21-23
- Required ancillary courses: 10
- Electives: 0-3
- Total to graduate (min. 40 hrs. upper-division): 121-123 min.

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.

*TO BE COMPLETED WITHIN FIRST 30-CREDIT HOURS AT MSU-Denver

Written Communication
___ ENG 1010 (3 hrs.) Composing Arguments*
or ENG 1008/1009 (6 hrs.) Composing Arguments, Parts I & II*
___ ENG 1020 (3 hrs.) Freshman English: Rsrch, Anly, & Documt. (to be completed within 60 credits at Metro)

Oral Communication*
___ SPE 1010 (3 hrs.) Public Speaking

Quantitative Literacy*
___ MTH 1110 (4 hrs.) College Algebra or higher level math

Arts and Humanities
___ (3 hrs.)
___ PHI 3370 (3 hrs.) Computers, Ethics, and Society

Historical
___ (3 hrs.)

Natural and Physical Sciences (see CS major advisor - labs required)
___ BIO 1080 (4 hrs.) General Biology I & BIO 1090-1 Lab
or BIO 1081 (4 hrs.) General Biology II & BIO 1091-1 Lab
or CHE 1800 (4 hrs.) General Chemistry I
and CHE 1810 (4 hrs.) General Chemistry II & CHE 1850-2 LAB
or PHY 2311 (4 hrs.) General Physics I & PHY2321-2 Lab
or PHY 2331 (4 hrs.) General Physics II & PHY2341-2 Lab

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 COURSES (Please see a Faculty Advisor)

NOTE: All CS and MTH courses must be completed with a “C” or higher.
___ CS 1050 (4 hrs.) Computer Science 1 (This course is part of MTH minor)
___ CS 1400 (4 hrs.) Computer Organization 1
___ CS 2050 (4 hrs.) Computer Science 2
___ CS 2400 (4 hrs.) Computer Organization 2
___ CS 3210 (4 hrs.) Principles of Programming Languages
___ CS 3240 (2 hrs.) Intro. to the Theory of Computation
___ CS 3600 (4 hrs.) Operating Systems
___ CS 4050 (4 hrs.) Algorithms & Algorithm Analysis
___ CS 4250 (4 hrs.) Software Engineering Principles
___ CS 4260 (4 hrs.) Software Engineering Practices (Senior Experience)

Computer Science Electives – A minimum of 16 additional credit hours selected from upper division CS courses or/and MTH4480-6 in consultation with a faculty advisor:
___ CS 16 hours or CS 12 hours and MTH 4480-4 Numerical Analysis I

Required Ancillary Courses
___ COM 2610 (3 hrs.) Introduction to Technical Writing

MATH MINOR COURSES (see department for substitutions)
___ MTH 1410 (4 hrs.) Calculus I
___ MTH 2140 (2 hrs.) Computational Matrix Algebra
___ MTH 2410 (4 hrs.) Calculus II
___ MTH 3170 (4 hrs.) Discrete Mathematics for Computer Science
___ MTH 3210 (4 hrs.) Probability & Statistics (Calculus-based)

NOTE: As an alternative to the B.S. degree program, the CS Department works with the Center for Individualized Learning to provide students with programs customized to their educational needs. (St. Francis—2nd Floor)

___ Multicultural Requirement
(may be satisfied within General Studies, major, minor, or as an elective)

ELECTIVES