**Computer Science, B.S.**  
303-556-3208 Science Building 1022

This sheet applies to the 2012-13 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.

<table>
<thead>
<tr>
<th>General Studies</th>
<th>Major courses</th>
<th>Required Math minor</th>
<th>Required ancillary courses</th>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>36-38</td>
<td>50</td>
<td>21-23</td>
<td>10</td>
<td>0-3</td>
</tr>
</tbody>
</table>
| Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.

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

**Written Communication**

- ENG 1010 (3 hrs.) Freshman English: The Essay*
- 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 hrs.) College Algebra or higher level math

**Oral Communication**

- SPE 1010 Public Speaking (3 hrs.)

**Arts and Humanities**

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

**Historical**

- (3 hrs.)

**Natural and Physical Sciences**

- BIO 1080 (4 hrs.) General Biology I & BIO 1090-1 Lab
- BIO 1081 (4 hrs.) General Biology II & BIO 1091-1 Lab
- CHE 1800 (4 hrs.) General Chemistry I
- CHE 1810 (4 hrs.) General Chemistry II & CHE 1850-2 LAB
- PHY 2311 (4 hrs.) General Physics I & PHY2321-2 Lab
- 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**

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 2050 (4 hrs.) Computer Science 2
- CS 2400 (4 hrs.) Computer Organization & Assembly Language
- 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 and/or MTH 4480-6 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
- EET 2310 (4 hrs.) Digital Circuits I **
- PHI 3370 (3 hrs.) Computers, Ethics, and Society

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)

**Multicultural Requirement**

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

**ELECTIVES**

**SEE DEPARTMENT ABOUT CHANGES TO THIS REQUIREMENT**