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.

**General Studies**

- **Major courses**
- **Minor**
- **Electives**
- **Total to graduate (min. 40 hrs upper division)**

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*
- 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 CSS 1247 (4 crh) Introduction to Programming: Visual Basic
- OR CSS 1510 (4 crh) Computer Programming: FORTRAN

**One of the following sequences:**

- MTH 3420-Differential Equations AND MTH 4410-Advanced Calculus I
- MTH 4410-Advanced Calculus I AND MTH 4450-Complex Variables
- MTH 4490-Numerical Analysis II AND MTH 4450-Complex Variables

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

- MTH 3220 - Design of Experiments
- MTH 3260 - Optimization Techniques I
- MTH 4210 - Probability Theory
- MTH 4250 - Optimization Techniques II
- MTH 4260 - Partial Differential Equations
- MTH 4410 - Advanced Calculus I
- MTH 4440 - Partial Differential Equations
- MTH 4490 - Numerical Analysis II
- MTH 4450 - Complex Variables

---

**MINOR (required)**

- **Mathematics, B.A./B.S., Applied Mathematics Concentration**
  - 303-556-3208 Science Building 1022