

# Mathematics, B.A./B.S., Probability & Statistics Concentration

Department of Mathematics & Computer Sciences, 303-556-3208, Science Building 1022

College of Letters, Arts, and Sciences

Catalog 15-16

This sheet applies to the 2015-16 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	30	Students who have reached junior standing (60 hrs.) should request a CAPP (graduation compliance report) and review it with a faculty advisor.
Major courses	44	
Minor (determines BA or BS - see MTH advisor)	18	
Electives	28	
<b>Total to graduate (min. 40 hrs upper division)</b>	<b>120 min</b>	

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

### Written Communication

- \_\_\_ ENG 1010 (3 hrs.) Composing Arguments\*  
or ENG 1008/1009 (6 hrs.) Intro to Composition, Parts 1 & 2\*  
\_\_\_ ENG 1020 (3 hrs.) Freshman Comp: Analysis, Research, & Documt.  
(ENG 1020 must be completed within 45 credit hours)

### 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 Math Advisor in M&CS Dept.

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 Probability & Statistics Concentration Courses**

- \_\_\_ MTH 3140 (4 hrs.) Linear Algebra (or MTH 3130)  
\_\_\_ MTH 3210 (4 hrs.) Probability and Statistics  
\_\_\_ MTH 3220 (4 hrs.) Statistical Methods  
\_\_\_ MTH 4210 (4 hrs.) Probability Theory (Senior Experience)  
\_\_\_ MTH 4230 (4 hrs.) Regression and Computational Statistics  
\_\_\_ MTH 4250 (4 hrs.) Statistical Theory  
\_\_\_ MTH 4290 (1 hr.) Senior Statistics Project

### **One of the following five courses:**

- \_\_\_ CS 1050 (4 hrs.) Computer Science I  
OR CSS 1247 (4 hrs.) Introduction to Programming: Visual Basic  
OR CSS 1510 (4 hrs.) Computer Programming: FORTRAN  
OR MTH 2520 (4 hrs.) R Programming  
OR MTH 3510 (4 hrs.) SAS Programming

**MINOR** (required) - Your choice of minor determines if you earn a BS or BA so work with your mathematics faculty advisor on this selection.

### \_\_\_ **Multicultural Requirement**

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

## ELECTIVES