

**I. CORE CURRICULUM** ..... 44  
 Math 1110 will meet the math requirement.

**II. MAJOR REQUIREMENTS**.....65-80  
**2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.**

Course requirements for the Bachelor of Science degrees in mathematical sciences (non-teaching) are as follows (with program subject to the approval of the advisory committee). An acceptable program of at least 65 semester hours but no more than 80, with a minimum of 34 hours in the Department of Mathematical Sciences (at least 5 semester hours from the 4000 level).

**A. Mathematics**

- MAT 1110 \_\_\_\_\_ (4) Calculus with Analytic Geometry I (ND)
- MAT 1120 \_\_\_\_\_ (4) Calculus with Analytic Geometry II (ND)
- MAT 2130 \_\_\_\_\_ (4) Calculus with Analytic Geometry III (ND)
- MAT 2240 \_\_\_\_\_ (3) Introduction to Linear Algebra (C)

**B. Completion of one of the options:**

**1. General - 260\*; 260B**

- MAT 3110 \_\_\_\_\_ (3) Intro to Modern Algebra (W)
- MAT 3220 \_\_\_\_\_ (3) Intro to Real Analysis I (W)

Plus 13 hours of electives\*\* in mathematical sciences (at least 5 hours at 4000 level); plus 10 semester hours of related\* coursework.

**OR**

**2. Applied - 260\*; 260C**

- MAT 3130 \_\_\_\_\_ (3) Intro to Differential Equations
- MAT 3310 \_\_\_\_\_ (3) Appl of Mathematics (W, S, ND, C)
- MAT 4310 \_\_\_\_\_ (3) Numerical Methods (ND, C)
- CS 1440 \_\_\_\_\_ (4) Computer Science I (C)
- CS 2440 \_\_\_\_\_ (4) Computer Science II (C)
- STT 4250 \_\_\_\_\_ (3) Probability Modeling w/Applications
- or** STT 3850 \_\_\_\_\_ (4) Intro to Prob and Statistics (C, ND)

Plus 6 hours of approved electives\*\* in Mathematical Sciences (at least 5 hours at the 4000 level in math sciences) and 6 hours of related\* coursework.

Major Designators

2 Writing (W) \_\_\_\_\_

1 Speaking (S) \_\_\_\_\_

Certified Proficiency in Communication (CPC) \_\_\_\_\_

See Department Chair for CPC requirements

Other Designators

4 Writing (W) \_\_\_\_\_

(English 1000 and 1100 will count as 2 W)

4 Multi Cultural (MC) \_\_\_\_\_

(History 1101 and 1102 will count as 2 MC)

2 Numerical Data (ND) \_\_\_\_\_

2 Computer (C) \_\_\_\_\_

1 Cross Disciplinary (CD) \_\_\_\_\_

**C. A "concentration" of at least 18 semester hours from disciplines outside mathematical sciences.\*\***

\* Related coursework may be outside mathematical sciences and must be approved by advisory committee.

\*\*Must be approved by advisory committee.

**III. MINOR (optional)**

**IV. ELECTIVES (taken to total 122 hours for the degree)**

**2 semester hours of free electives must be outside the major discipline.**