

Bachelor of Science (BS)  
Degree Code 260\*  
Concentration Code 260G  
Student Name: \_\_\_\_\_

Program of Study for Mathematical  
Sciences Majors  
PHYSICAL SCIENCES  
Date \_\_\_\_\_

I. GENERAL EDUCATION CURRICULUM ..... 44  
Math 1110 will meet the Quantitative Literacy general education requirement.

II. MAJOR REQUIREMENTS (not including 4 s.h. counted in Area I, above)..... 61  
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.

A. Mathematics Common Core (14-15 hours)

- MAT 1110 \_\_\_\_\_ (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
- MAT 1120 \_\_\_\_\_ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)
- MAT 2240 \_\_\_\_\_ (3) Introduction to Linear Algebra (Pre: MAT 1120)

Choose one:

- MAT 2110 \_\_\_\_\_ (3) Techniques of Proof (Pre: MAT 1120)
- MAT 2510 \_\_\_\_\_ (4) Sophomore Honors Seminar (Pre: MAT 1120)

B. General Mathematics Concentration (28-29 hours)

- MAT 2130 \_\_\_\_\_ (4) Calculus with Analytic Geometry III (Pre: MAT 1120 w/min grade C-)
- MAT 2310 \_\_\_\_\_ (3) Computational Mathematics (Pre: MAT 1120)
- MAT 3130 \_\_\_\_\_ (3) Introduction to Differential Equations (Pre: MAT 1120)
- MAT 4310 \_\_\_\_\_ (3) Numerical Methods (Pre: MAT 2310)
- STT 3850 \_\_\_\_\_ (4) Statistical Data Analysis I (Pre: MAT 1110)

Choose one:

- MAT 3110 \_\_\_\_\_ (3) Introduction to Modern Algebra [WID] (Pre: ENG 2001, MAT 2110 or 2510; Co: 2240)
- MAT 3220 \_\_\_\_\_ (3) Introduction to Real Analysis [WID] (Pre: ENG 2001, MAT 2110 or 2510)

Choose one:

- MAT 4040 \_\_\_\_\_ (1) Mathematics Capstone [CAP] (Pre: MAT 3110 or 3220; Sr. standing)
- MAT 4510 \_\_\_\_\_ (1) Senior Honors Thesis [CAP] (Pre: MAT 3510; 3.45+ GPA in math)

10-13 hours of approved electives\*\* in mathematical sciences to bring total hrs in AREA II to 65 hrs (3 hours must be at 4000 level)

C. A Physical Sciences Concentration (17 hours)

- PHY 2010 \_\_\_\_\_ (4) Intermediate Physics I (Pre: PHY 1104 or 1151, MAT 1120)
- PHY 2020 \_\_\_\_\_ (4) Intermediate Physics II (Pre: PHY 2010, MAT 2130)
- PHY 3210 \_\_\_\_\_ (3) Modern Physics I (Pre: PHY 1151 or Co: PHY 2010)

3 hours of approved electives\*\* in physics at or above 2000 level

3 hours of approved electives\*\* in physics or technology

\*\*Must be approved by advisory committee.

III. MINOR (optional)

Student Signature: _____
Advisor Signature: _____
Chairperson Signature: _____
Date: _____ Date Sent to Dean's Office: _____

IV. ELECTIVES (taken to total 122 hours for the degree) ..... 17  
2 semester hours of free electives must be outside the major discipline. 122