Bachelor of Science (BS)   **Program of Study for Mathematics Majors**
Degree Code 260*
Concentration Code 260H   **STATISTICS**
Student Name: _____   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 <u>all</u> 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)*

<u>Choose one:</u>
MAT 2110   _____   (3) Techniques of Proof *(Pre: MAT 1120)*
MAT 2510   _____   (4) Sophomore Honors Seminar *(Pre: MAT 1120)*

B. Mathematics Courses for Concentration (25-26 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 3220   _____   (3) Introduction to Real Analysis **[WID]** *(Pre: RC 2001, MAT 2110 or 2510)*
MAT 4310   _____   (3) Numerical Methods *(Pre: MAT 2310)*

<u>Choose one</u>:
MAT 4040   _____   (1) Mathematics Capstone **[CAP]** *(Pre: MAT 3110 or 3220; Sr. standing)*
MAT 4510   _____   (3) Senior Honors Thesis **[CAP]** *(Pre: MAT 3510; 3.45+ GPA in math)*

6-9 hours of approved electives** in mathematical sciences **to bring total hrs in AREA II to 65** (3 hours must be at 4000 level)

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C. Statistics Concentration (25 hours)

STT 3250   _____   (4) Fundamentals of Probability *(Pre: MAT 2130)*
STT 3850   _____   (4) Statistical Data Analysis I *(Pre: MAT 1110)*
STT 3851   _____   (3) Statistical Data Analysis II **[WID]** *(Pre: RC 2001, STT 3850)*

5 hours of approved statistics electives** at or above STT 3830 (excluding STT 4811 and 4812)

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9 hours of approved electives** in related coursework which may include courses from outside mathematical sciences

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*** Must be approved by mathematical sciences advisor.*

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**