

Bachelor of Science (BS)
Degree Code 260*
Concentration Code 260E
Student Name: _____

Program of Study for Mathematical
Sciences Majors
COMPUTATION
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 Computation Concentration (27-28 hours)

- MAT 2310 _____ (3) Computational Mathematics (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) Intro to Real Analysis I [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 _____ (3) Senior Honors Thesis [CAP] (Pre: MAT 3510; 3.45+ GPA in math)

11-14 hours of approved electives** in mathematical sciences to bring total number of hours in AREA II to 65 (at least 3 hours at the 4000 level)

C. A Computational Concentration (14 hours)

- C S 1440 _____ (4) Computer Science I (Pre: MAT 1020 or 1025 w/min grade C-)
- C S 2440 _____ (4) Computer Science II (Pre: CS 1440 or 1445 w/min grade C; Co: CS 1100)
- C S 3430 _____ (3) Database (Pre: CS 2440 with min grade of C)
- C S 3460 _____ (3) Data Structures (Pre: CS 2440 with min grade of C)

D. Electives: 9 hours** of Approved courses in the sciences, which may include computer science

**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