

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

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. Mathematics Courses for the 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 mathematical sciences advisor.

III. MINOR (optional)

Student Signature: _____ Advisor Signature: _____ Chairperson Signature: _____ Date: _____ Date Sent to Dean's Office: _____
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IV. ELECTIVES (taken to total 122 hours for the degree) ..... 17  
2 semester hours of free electives must be outside the major discipline. 122

Total major requirements – 65; Gen Ed courses that may count in major (depends on choices) – 4; net major 61 hours;