

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/grade of C-)
- MAT 1120 \_\_\_\_\_ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/grade of 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)

Major Requirements that count in Gen Education:	
Quantitative Literacy	
MAT 1110	4 s.h.
Total Major hrs:	65
Gen Ed hrs:	- 4
Net Major hrs:	61

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, 2240)
- MAT 3220 \_\_\_\_\_ (3) Intro to Real Analysis I [WID] (Pre: ENG 2001, MAT 2110)

Choose one:

- MAT 4040 \_\_\_\_\_ (1) Mathematics Capstone [CAP] (Pre: Senior 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 1020/1025 w/grade of C-)
- C S 2440 \_\_\_\_\_ (4) Computer Science II (Pre: CS 1440 or 1445 w/grade of C; Co: CS 1100)
- C S 3430 \_\_\_\_\_ (3) Database (Pre: CS 2440)
- C S 3460 \_\_\_\_\_ (3) Data Structures

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

\*\*Must be approved by advisory committee.

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree) ..... 17

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