

I. GENERAL EDUCATION CURRICULUM44

Math 1110 will count toward Quantitative Literacy Gen Ed requirement. Some general education requirements may be double-counted in the major with departmental approval. Please see your advisor for information.

II. MAJOR REQUIREMENTS (not including 4 s.h. counted in Area I, above)65

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. Course requirements for the Bachelor of Science degree in actuarial science are as follows (with program subject to the approval of the advisory committee). An acceptable program consists of at least 69 semester hours but no more than 80, with a minimum of 33 hours in the Department of Mathematical Sciences.

A. Mathematics – 38 s.h.

- MAT 1110 _____ (4) Calculus w/ Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
- MAT 1120 _____ (4) Calculus w/ Analytic Geometry II (Pre: MAT 1110 w/min grade C-)
- MAT 2130 _____ (4) Calculus w/ Analytic Geometry III (Pre: MAT 1120 w/min grade C-)
- MAT 2240 _____ (3) Introduction to Linear Algebra (Pre: MAT 1120)
- MAT 3330 _____ (3) Financial Mathematics (Pre: MAT 1120)
- MAT 3340 _____ (3) Actuarial Models (Pre: MAT 3330, STT 3850)
- MAT 4330 _____ (3) Senior Seminar in Actuarial Science [CAP] (Pre: MAT 3330; STT 3250)
- 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)
- STT 4840 _____ (3) Regression & Time Series Forecasting (Pre: STT 3250, 3850; MAT 2240)

B. Business – 27 s.h.

- ACC 2100 _____ (3) Principles of Accounting I (Pre: 24 sh college credit)
- ECO 2030 _____ (3) Principles of Microeconomics
- ECO 2040 _____ (3) Principles of Macroeconomics (Pre: ECO 2030)
- FIN 3100 _____ (3) Principles of Risk Management and Insurance (Pre: 54 earned hours)
- FIN 3680 _____ (3) Introduction to Finance (Pre: ACC 2100; MAT 1030, 1035, or 1110; 54 earned hours)
- FIN 3690 _____ (3) Financial Management (Pre: FIN 3680; 54 earned hours)
- FIN 3890 _____ (3) Survey of Investments (Pre: FIN 3680; 54 earned hours)
- FIN 4770 _____ (3) Derivatives & Financial Risk Management (Pre: FIN 3890; WID w/min grade C; 84 earned hours)
- LAW 2150 _____ (3) Legal Environment of Business

C. Electives – 4 s.h. Choose 4 hours from the courses listed below

- MAT 2110 _____ (4) Techniques of Proof (Pre: MAT 1120)
- MAT 3130 _____ (3) Intro to Differential Equations (Pre: MAT 1120)
- MAT 3310 _____ (3) Discrete and Continuous Mathematics Models (Pre: MAT 1120; Co: MAT 2240)
- MAT 3350 _____ (3) Intro to Mathematical Biology (Pre: MAT 1120; Jr. standing)
- MAT 3220 _____ (3) Introduction to Real Analysis I [WID] (Pre: MAT 2110 or 2510; RC 2001)
- MAT 4340 _____ (3) Intro to Operations Research (Pre: MAT 2240; STT 3850; Jr standing)
- C S 1440 _____ (4) Computer Science I (Pre: MAT 1020 or 1025 w/min grade of C- or higher)

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree)13

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