# Actuarial Science Courses (Statistics and Actuarial Science) (ACTS)

This is a list of all actuarial science courses. For more information, see Statistics and Actuarial Science.

### ACTS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

### ACTS:1001 Introductory Seminar on Actuarial Science 1 s.h.
Introduction to actuarial science; U.S. actuarial organizations and actuarial qualification process; program requirements and tips for academic success; career center, actuarial club, and internships; actuarial career; ethics; communication; introduction to actuarial computing. Requirements: actuarial science interest major and first-year standing.

### ACTS:3080 Mathematics of Finance I 3 s.h.
Mathematics of compound interest, annuities certain, amortization schedules, yield rates, sinking funds, and bonds. Prerequisites: STAT:3100 with a minimum grade of B-. Requirements: meet the prerequisite or have graduate standing.

### ACTS:3110 Actuarial Exam P Preparation 1 s.h.
Preparation for the Society of Actuaries exam P.

### ACTS:3210 Actuarial Exam FM Preparation 1 s.h.
Preparation for the Society of Actuaries exam FM. Corequisites: ACTS:3080, if not taken as a prerequisite.

### ACTS:4010 Actuarial Exam IFM Preparation 1 s.h.

### ACTS:4110 Actuarial Exam LTAM Preparation 1 s.h.
Preparation for the Society of Actuaries exam LTAM. Corequisites: ACTS:4280, if not taken as a prerequisite.

### ACTS:4130 Quantitative Methods for Actuaries 3 s.h.

### ACTS:4160 Topics in Actuarial Science arr.
Selected topics in actuarial science, financial mathematics, and quantitative risk management.

### ACTS:4280 Life Contingencies I 3 s.h.
Life annuities, net and gross premiums, net and gross premium reserves, modified reserve methods, and Markov chains. Offered spring semesters. Prerequisites: ACTS:3080 with a minimum grade of C+ and ACTS:4130 with a minimum grade of C+ and (STAT:4100 with a minimum grade of C+ or STAT:5100 with a minimum grade of C+).

### ACTS:4380 Mathematics of Finance II 3 s.h.

### ACTS:4990 Readings in Actuarial Science arr.

### ACTS:6160 Topics in Actuarial Science arr.
Selected topics in actuarial science, financial mathematics, and quantitative risk management; required for all final-year M.S. students in actuarial science. Prerequisites: ACTS:4180 with a minimum grade of C+ and ACTS:4380 with a minimum grade of C+.

### ACTS:6480 Loss Distributions 3 s.h.
Severity, frequency, and aggregate models and their modifications; risk measures; construction of empirical models. Offered spring semesters. Prerequisites: STAT:4101 or STAT:5101. Corequisites: ACTS:4380.

### ACTS:6580 Credibility and Survival Analysis 3 s.h.

### ACTS:6990 Readings in Actuarial Science arr.
Supervised reading and research in actuarial science, financial mathematics, or quantitative risk management.

### ACTS:7730 Advanced Topics in Actuarial Science/Financial Mathematics arr.
Selected advanced topics in actuarial science, financial mathematics and quantitative risk management.