Selected topics in actuarial science, financial mathematics, and quantitative risk management.

ACTS:4160

Requirements: multivariate calculus and linear algebra.

Prerequisites: STAT:4100 with a minimum grade of C+. Corequisites: ACTS:6480.

Construction and selection of parametric models, credibility, and simulation. Offered spring semesters. Prerequisites: ACTS:3080 with a minimum grade of C+ and ACTS:4130 with a minimum grade of C+ or ACTS:5100 with a minimum grade of C+.

ACTS:4280

Requirements: multivariate calculus, and linear algebra.

Multivariate calculus, and linear algebra. Offered spring semesters. Prerequisites: ACTS:4180 with a minimum grade of C+.

ACTS:4380 Mathematics of Finance II

Requirements: multivariate calculus, and linear algebra.

Derivatives markets, forwards, options, pricing models, and actuarial applications. Prerequisites: ACTS:3080 with a minimum grade of C+. Requirements: mathematical statistics, multivariate calculus, and linear algebra.

ACTS:4990

Arr.

Readings in Actuarial Science

Selected topics in actuarial science, financial mathematics, and quantitative risk management.

ACTS:6160

Topics in Actuarial Science

Selected topics in actuarial science, financial mathematics, and quantitative risk management.

ACTS:6200

Predictive Analytics

Linear mixed models; generalized linear mixed models; generalized additive models; applications of these models using associated R packages. Prerequisites: STAT:4560. Corequisites: STAT:4561. Requirements: comfort working with R software environment. Same as DATA:6200.

ACTS:6480

Loss Distributions

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:6580.

ACTS:6580

Credibility and Survival Analysis


ACTS:6990

Readings in Actuarial Science

Supervised reading and research in actuarial science, financial mathematics, or quantitative risk management.

ACTS:7730

Advanced Topics in Actuarial Science/Financial Mathematics

Selected advanced topics in actuarial science, financial mathematics, and quantitative risk management.