ACTUARIAL SCIENCE (ACT SCI)

ACT SCI 300 — ACTUARIAL SCIENCE METHODS I
1 credit.

Develop a knowledge of fundamental mathematical tools for quantitatively assessing risk. Emphasize the applications of these tools to problems encountered in actuarial science. Enroll Info: None
Requisites: (STAT/MATH 309, STAT 311, or STAT/MATH 431) or declared in Capstone Certificate in Actuarial Science, member of Business Exchange program. Not open to graduate students
Repeatable for Credit: Yes, for 2 number of completions
Last Taught: Spring 2020

ACT SCI 301 — ACTUARIAL SCIENCE METHODS II
1 credit.

Develop a knowledge of mathematical tools for quantitatively assessing financial risk. Emphasize the applications to problems encountered in actuarial science. Enroll Info: None
Requisites: (MATH 303 or concurrent enrollment) or declared in Capstone Certificate in Actuarial Science or member of Business Exchange program. Not open to graduate students
Repeatable for Credit: Yes, for 2 number of completions
Last Taught: Spring 2020

ACT SCI 303 — THEORY OF INTEREST
3 credits.

Time value of money; interest compounded discretely and continuously; accumulated and present value of payments; loans and sinking funds; annuity and bond valuation; interest rate term structure; duration, immunization and interest rate swaps. Enroll Info: None
Requisites: MATH 222 or 276 or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Spring 2020

ACT SCI 365 — CONTEMPORARY TOPICS
1-3 credits.

Exploration of subject areas possibly to be introduced into the business curriculum. Enroll Info: None
Requisites: None
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2020

ACT SCI 399 — READING AND RESEARCH-ACTUARIAL SCIENCE
1-3 credits.

Directed study in various areas of actuarial science that provides the opportunity to participate in more in-depth study (intermediate level) under the direct guidance of actuarial science faculty. Enroll Info: None
Requisites: Consent of instructor
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: Yes, for 4 number of completions

ACT SCI 650 — ACTUARIAL MATHEMATICS I
3 credits.

Advanced problems in the mathematical theory of life contingencies; force of mortality, laws of mortality; premiums and reserves for insurance and annuities based on a single life. Enroll Info: None
Requisites: MATH 303 and (STAT/MATH 309, STAT 311, or STAT/MATH 431); or member of Business Exchange program
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2020

ACT SCI 651 — ACTUARIAL MATHEMATICS II
3 credits.

Continuation of ACT SCI 650. Joint life probabilities, annuities and insurances; multiple-decrement theory; pension fund mathematics. Enroll Info: None
Requisites: ACT SCI 650
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2020

ACT SCI 652 — LOSS MODELS I
3 credits.

Definition and selection of probability distributions appropriate for insurance data that are heavily tailed and skewed. Enroll Info: None
Requisites: (STAT/MATH 310 or STAT 312 or concurrent registration) or member of Business Exchange program
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2020

ACT SCI 653 — LOSS MODELS II
3 credits.

Estimation of parameters of probability distributions appropriate for insurance data that are heavily tailed and skewed; assessment of credibility of data for ratemaking. Enroll Info: None
Requisites: ACT SCI 652 or member of Business Exchange program
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2020

ACT SCI 654 — REGRESSION AND TIME SERIES FOR ACTUARIES
3 credits.

Linear regression and correlation; generalized linear regression models; introduction to time series; time series model building and forecasting with focus on data of interest to actuaries. Enroll Info: None
Requisites: Junior standing and (GEN BUS 306, 704, STAT/MATH 310, or STAT 312); or member of Business Exchange program
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2020
ACT SCI 655 — HEALTH ANALYTICS
3 credits.

The overall goal of this course is to provide students with an introduction to the broad area of health, integrating how researchers from multiple perspectives have investigated various aspects of health, along with the hands-on practice of learning and using statistical tools to analyze these topics. Enroll Info: Junior standing and (GEN BUS 306, STAT/MATH 310 or 312)

Requisites: Junior standing and (GEN BUS 306, 704, STAT/MATH 310, or STAT 312); or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Spring 2020

ACT SCI 765 — CONTEMPORARY TOPICS
1-3 credits.

Exploration of subject areas possibly to be introduced into the business curriculum. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2019