ACTUARIAL SCIENCE (ACTU)

ACTU 301   Financial Mathematics for Actuarial Science   3 Hours
An introduction to fundamental concepts of financial mathematics; Application of present and accumulated value calculations to various streams with the emphasis on mathematics of valuation, pricing, asset/liability management, investment income, and contingent cash flows. The course prepares students for the Financial Mathematics (FM) actuarial exam.
Prerequisite(s): FIN 330 and MATH 136 and (ECON 206 or STAT 301) and ECON 203
Recent Term(s) Offered: fall 2023; fall 2024

ACTU 382   Probability and Statistics I   3 Hours
Axioms and laws of probability; discrete and continuous probability distributions; multivariate distributions; random variables; expectation; moment generating functions; Central Limit Theorem.
Prerequisite(s): MATH 310 with a minimum grade of C and MATH 237 (may be taken concurrently)
Equivalent(s): MATH 382
Recent Term(s) Offered: None

ACTU 482   Probability and Statistics II   3 Hours
Multivariate probability distributions; sampling distributions, statistical inference; point and interval estimation, properties of estimators; hypothesis testing; regression and correlation; analysis of variance; non-parametric methods.
Prerequisite(s): MATH 237 with a minimum grade of C and MATH 382 with a minimum grade of C
Equivalent(s): MATH 482
Recent Term(s) Offered: None