**Theory of Interest (Stat 274)**
Theory of interest, annuities, amortization, financial derivatives, prepares for SOA Exam FM. (Prerequisite: Math 112)

**Statistical Theory for Actuaries (Stat 370)**
This course prepares students for Exam P/1 and covers probability theory, including discrete, continuous, and mixture random variables; loss distributions; moment-generating functions; conditional probability and expectation; total probability; stochastic independence; and transformations. (Prerequisites: Stat 340 & Math 314)

**Life Contingencies (Stat 475)**
This course prepares students for Exam MLC/3L and covers life tables, survival functions, contingent annuities, insurance, premiums, reserves, and joint annuities and insurance. (Prerequisite: Stat 274)

**Statistical Distributions for Actuarial Modeling and Data Analytics (Stat 477)**
Analyze data from a risk-based application; select a suitable model and estimate parameters using MLE, method of moments, and Bayes methods; determine goodness of fit and measures of confidence for decision making. (Prerequisite: Stat 340)

**For Detailed Course Information:**
- “Actuarial Science” Major Academic Planning (MAP):
  statistics.byu.edu/content/major-academic-plans
- Description of Actuarial Exams & Requirements:
  beanactuary.com/exams/
- SOA Exam registration:
  soa.org/education/exam-req/registration/edu-registration.aspx