Prerequisite:
STAT 280 must precede or be taken concurrently.

Required Texts:
Loss Models: From Data to Decisions by S.A. Klugman, H.H. Panjer and G.E. Willmot; publisher: Wiley

Reference:
ACTEX Manual for Course 4, 2000 see website: www.actexmadriver.com/SMdesc.htm#4

Course Description:
Statistical distributions useful in general insurance. Inferences from general insurance data. Experience rating. Credibility theory: full credibility, partial credibility, Bayesian credibility. Estimation of loss distributions. Modelling loss distributions: ungrouped data, truncated and shifted data, clustering. Applications: inflation. This course covers part of the syllabus of the Society of Actuaries Course 3 and 4 examinations.

Outline:

This course studies reasonable and usable approximations to the distribution of incurred losses for insured events. It also introduces the subject of Credibility Theory. The topics covered include:

Loss Distributions:
   Statistical Inference
   Modeling Loss Distributions
   Applications: Inflation, Percentile Estimation

Credibility Theory:
   Full Credibility
   Partial Credibility
   Bayesian Credibility: parametric, non-parametric
   Buhlmann-Straub Model

Grading:
   Assignments - 20%