nd *ed.* By Klugman, Panger, and Willmot; Publisher Wiley

References:

Introduction to Probability Models (8th ed.) 2003, S.M. Ross
"Multi-State Transition Models with Actuarial Applications", J.W. Daniel
ACTEX Manual for SOA Exam M (or CAS Exam 3), 2005, see website: www.actexmadriver.com

Calendar Description:

Basic distributional quantities: moments, percentiles, generating functions and sums of random variables. Classifying and creating distributions. Frequency and severity with coverage modifications: deductibles, the loss elimination ratio and the effect of inflation for ordinary deductibles, policy limits, coinsurance. Aggregate loss models. Multi-state transition models with actuarial applications: non-homogeneous Markov chains, cash flows and their actuarial present values. The exponential distribution and the Poisson process. Covers part of the syllabus for Exam M of the Society of Actuaries, and Exam 3 of Casualty Actuarial Society.

Outline:

This course studies frequency and aggregate loss models. The topics covered correspond to part of the syllabus of Exam M of the Society of Actuaries (or Exam 3 of Casualty Actuarial Society)

Grading Scheme:

Assignments – 10%
Midterms (2) – 40%
Final Exam – 50%
The grading is subject to change.

Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the posting of marks. Please pay careful attention to the options discussed in class at the beginning of the semester. Students are reminded that Academic Honesty is a cornerstone of the acquisition of knowledge. Scholarly integrity is required of all members of the University. Please consult the General Guidelines of the calendar for more details.

Revised June 2006