



*Students requiring accommodations as a result of disability, must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca*

---

**Instructor:** [Dr. Cary Tsai](#)

**Prerequisite:**

ACMA 320

**Required Text:**

*Loss Models: From Data to Decisions 2<sup>nd</sup> ed.* By Klugman, Panger, and Willmot; Publisher Wiley

**References:**

ACTEX Manual for SOA Exam C (or CAS Exam 4), 2008, see website: [www.actexamdriver.com](http://www.actexamdriver.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. **Quantitative**

**Outline:**

---

*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 2008