



ACMA 822

Risk Measures and Ordering

Fall 2006
Day Course

Students requiring accommodations as a result of disability, must contact the Centre for Students with Disabilities 604-291-3112 or csdo@sfu.ca

Instructor: [Dr. Cary Tsai](#)

Prerequisite:

STAT 285 or permission of the instructor.

Required Text:

Lecture Notes and selected papers.

References:

Insurance Premiums, 1984, M.J. Goovaerts, F. De Vylder, and J. Haezendonck; publisher: North-Holland, Amsterdam.

Calendar Description:

An advanced course in actuarial risks. Insurance premium calculation principles and associated properties. Risk measures and ordering. Actuarial application.

Outline:

This course studies the actuarial risks. A variety of premium calculation principles and associated properties, and risk measures and orders will be introduced. They include the following:

- ~ Premium calculation principles
- ~ Properties of premium calculation principles
- ~ Stochastic order
- ~ Stop-loss order
- ~ Higher degree order
- ~ Ordering of risks under proportional hazards transforms
- ~ Comonotonicity
- ~ Actuarial applications

Grading Scheme:

Assignments – 10%
Exam – 70%
Presentation and/or Project – 20%

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 May 2006