STAT 890-4
Selected Topics in Actuarial Science: Stochastic Analysis of Insurance Portfolios

Fall 2005
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. G. Parker

Prerequisites:

ACMA 425 and permission of the Department of Statistics and Actuarial Science.

Textbook:

Lecture Notes

Course Description:

Basic insurance contracts with stochastic interest rate and mortality. Insurance portfolios.

Outline:

This course introduces the subject of stochastic interest models with applications to insurance portfolios.

Models for interest rates:
- Review of time series
- Review of stochastic differential equations

Basic insurance contracts:
- NSP
- Moments of present value of benefits
- Distribution of present value of benefits

Insurance Portfolios:
- Term insurance
- Endowment insurance
- Diversified Portfolios

Grading Scheme:

Assignments & Term Project – 30%
Midterm 1 – 30%
Final Exam – 40%

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 2005