ACMA 425
Actuarial Mathematics II

Fall 2009
Day Course

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. Yi Lu

Prerequisite:

ACMA 320

Required Text:

Actuarial Mathematics (2nd ed 1997) by Bowers, Gerber, et al.; Society of Actuaries

References:

Life Insurance Mathematics by Gerber, Springer-Verlag
The Mathematics of Life Insurance by Menge and Fisher; Ulrich's
Life Contingenices by C.W. Jordan; Society of Actuaries

Calendar Description:

Actuarial reserves: allocation of the loss to the policy years. Multiple life functions: joint-life, last-survivor. Multiple decrement models: stochastic and deterministic approaches, associated single decrement. Fractional durations. Valuation theory for pension plans. Insurance models including expenses: gross premiums and reserves, types of expenses, modified reserves. Nonforfeiture benefits and dividends. Equity concept, cash values insurance options, asset shares, dividends. Covers part of the syllabus for Exam M of the Society of Actuaries and Exam 3 of the Casualty Actuarial Society. Quantitative

Course Description:

This course, a continuation of ACMA 320, covers the fundamentals of Actuarial Mathematics.

Outline: