Actsc 622 Life Insurance Mathematics 2

Syllabus

- Multiple state models, including models for joint lives. Premiums, and reserves for state dependent policies, including joint life and last survivor benefits, critical illness insurance and multiple decrement benefits.

- Cashflow projection methods for pricing, reserving and profit testing; deterministic, stochastic and stress testing.

- Pricing and risk management of embedded options in insurance products; mortality and maturity guarantees for equity (unit) linked life insurance.

- Introduction to pension valuation and funding.

Notes: This course covers around 40% of CT5. In addition, it looks more deeply at embedded options and variable insurance. The course also covers around 50% of the SOA exam MLC.

Textbook: It is intended to use the forthcoming text Actuarial Mathematics for Life Contingent Risk by David Dickson, Mary Hardy and Howard Waters.

Contact Hours: 36 lectures, 10 tutorials.

Assessment: 65% final exam (unseen); 15% midterm exam (unseen); 20% assignments.