

Math 419B Actuarial Mathematics II

Winter 2011

TT 1:00 – 2:15 PM

Black 139

Instructor: Cen-Tsong Lin

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Office Hours: 10:00 – 10:50, Monday – Thursday; 9:00 – 10:00 Friday or by appointment

Prerequisite: Math499A or by permission

Course goals: The goal of this course is to develop students' knowledge of the theoretical basis of certain actuarial models and the application of those models to insurance and other financial risks. After completing this sequence (Math 419A/B/C), students will be able to apply their knowledge to price and evaluate the risk for traditional insurance and annuities products. After completing Math 419B, students will be able to calculate the benefit premiums for traditional insurance and annuity products, the premiums for contingent contracts, benefit reserves needed for contingent contracts and survival models dependent on multiple lives.

Required Text: Cunningham, R., Herzog, T. and London, R.L., *Models for Quantifying Risk*, 3rd Edition, ACTEX Publications, Inc., 2008

Course outlines:

- Chapter 6 Contingent annuity models (Life annuities)
- Chapter 7 Funding plans for contingent contracts (Annual premiums)
- Chapter 8 Contingent reserves (Benefit reserves)
- Models dependent on multiple survivals (Multi-life models)

Grading Policy

Two tests: Tue, 1/25/2011 and Tue, 2/22/2011	50%
Homework assignments:	20%
Final exam: 2:00 – 4:00, Tuesday, 3/15/2011 (Comprehensive)	30%
Total	100%

Note:

- The due day of homework assignment is one week after it is assigned.
- This syllabus, homework assignments and class handouts are also available in the following website:
www.cwu.edu/~ctl