

Math 419B Actuarial Mathematics II Winter 2009

MWF 12:00 – 12:50 Bouillon 210

Instructor: Cen-Tsong Lin

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Office Hours: 10 – 10:50, Monday – Friday or by appointment

Prerequisite: Math419A

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 419A, students will be able to calculate and demonstrate mortality rates, survival time, and benefit premiums for traditional insurance and annuity products.

Required Text: Cunningham, R., Herzog, T. and London, R.L., *Models for Quantifying Risk*, Second Edition, ACTEX Publications, Inc., 2006

Optional reference: Bowers, Gerber, Hickman, Jones and Nesbitt, *Actuarial Mathematics*, 2nd edition, Society of Actuaries, 1997.

Chapters Covered:

- Chapter 6 Contingent annuity models (Life annuities), start from 6.4
- Chapter 7 Funding Plans for Contingent Contracts (Annual Premiums)
- Chapter 8 Contingent Contract Reserves (Benefit Reserves)
- Chapter 9 Models Dependent on Multiple Survivors (Multiple Live Models)

Grading Policy:

- Homework (30%): Homework will be assigned daily throughout the quarter and due one week after it is assigned. No late homework will be accepted.
- Two tests (40%): Tentative scheduled for Friday, 1/30/2009 and Friday 2/27/2009
- Final exam (30%): 12:00 – 2:00, Friday, 3/20/2009 (Comprehensive)