

MATH 556 - 001 – Actuarial Modeling II

Spring 2011

(<http://math.gmu.edu/~robeirne/math556>)

PREREQUISITE: Math 555 or permission of the Instructor

INSTRUCTOR: Richard O'Beirne, Department of Mathematical Sciences
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MEETINGS: Tuesdays from 7:20 p.m. to 10:00 p.m. from January 24, 2011 through May 3, 2011 in W1001 (except March 15 – Spring Break)

OFFICE HOURS: 6:00 p.m. – 7:00 p.m. on Tuesdays and Thursdays, and by appointment as necessary.

TEXTBOOK: “Actuarial Mathematics” by Bowers, et. al

MATERIAL: The course will cover most of the material contained in the following chapters of the Bowers text:
Chapter 8 – Analysis of Benefit Reserves
Chapter 9 – Multiple Life Functions
Chapter 10 – Multiple Decrement Models
Chapter 11 – Applications of Multiple Decrement Theory
Chapter 15 – Insurance Models Including Expenses
Multi-State Transition Models with Actuarial Applications
and Poisson Processes (handouts)

GRADING: There will be 2 tests and a final exam. Some of the tests may be take-home or split in-class/take-home. The exact dates for the tests will be announced. The scheduled date for the final exam is Tuesday, May 17, 2011 at 7:30 p.m.

This course is oriented toward the Society of Actuaries (SOA) exam MLC, (as well as the EA1 exam) continuing on the material in Math 555. I will provide many examples of SOA questions and solutions from the MLC exam throughout the course.

If time permits we may also cover the SOA study notes on Poisson Processes and Markov chains which have become elements of the SOA MLC syllabus. If so I will distribute the study notes. No additional text is required.