Course Syllabus for STA 4930 Life Contingencies Spring 2018, Section 1B95

Class: Griffin-Floyd Hall room 100
Times: Tuesdays 5th and 6th Periods, 11:45AM - 1:40PM and Thursdays 6th Period, 12:50 - 1:40PM
Course Website: http://www.stat.ufl.edu/∼rrandles/sta4930/index.html

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Office Hours: 1:00-3:00PM Mondays and 10:00-12:00AM on Wednesdays

Prerequisite: STA 4183 <u>AND</u> STA 4321 (or knowledge of the material in these courses)

This course covers the mathematical and probabilistic structure of life contingent financial instruments. It provides an introduction to survival models, covers life tables and their applications, the benefits and pricing of life insurance, lifetime annuities, and the mathematics of pensions.

This course attempts to cover <u>portions</u> of the syllabus for the fourth exam given by the Society of Actuaries (SOA MLC exam). The course STA 4321 provides the necessary background for the first actuarial exam (SOA P or CAS #1). The course STA 4183 provides background for the second actuarial exam (SOA FM or CAS #2). The courses STA 4210 and STA 4322 provide a partial background for other exams (SOA MLC or CAS #3L) and (SOA C or CAS #4) actuarial exams.

Required Textbook: "Actuarial Mathematics for Life Contingent Risks", Second Edition, by David Dickson, Mary Hardy and Howard Waters (2013), Cambridge University Press.

Course Coverage:
The first seven chapters of the text, plus parts of chapters 8 and 10.

Assignments: Exercises will be assigned every class period and these assignments will be available on the class website. Selected additional exercises will be collected on four dates during the term. These exercises will be assigned one week in advance of their due date. You must submit your solutions on the specified date or before that date. NO LATE PAPERS WILL BE ACCEPTED. Assigned exercises are good examples of the types of questions that will appear on exams.

Calculators: You may use non-progammable scientific calculators and/or financial calculators on the exams. A Texas Instruments BA II Plus calculator is a good financial calculator. Each student is responsible for having their own individual calculator in operational condition for exams. NO PROGRAMMABLE CALCULATORS OR SMART WATCHES MAY BE USED ON EXAMS. If you have a question about whether your calculator qualifies for use, show it to me ahead of time.

Course Exams: There will be four exams given during the regular class period on the following dates:

Thursday, February 01   Thursday, March 01
Thursday, March 29   Tuesday, April 24

Grading: The relatively few collected exercises will be graded with a maximum score of 10 for each problem. The sum of your exercise scores will be divided by the total number of exercise scores possible and that fraction will be applied to 40 points. So the maximum number of points on exercises will be 40 points. Quizzes will be given regularly. Quiz Dates: January 18, January 25, February 15, February 22, March 22 and April 12. Quizzes emphasize the focal point issues and formulas (notation) covered in class since the previous quiz or exam. There are a maximum of 10 points possible on each quiz. Your two lowest quizzes will be deleted. So the maximum number of quiz points possible will be 40 points. THERE ARE NO MAKE-UP QUIZZES GIVEN FOR ANY REASON. Each of the four exams will have a maximum point total of 100 points. So the maximum point total for the course will be 480 points. There will be no final exam in this course.

Grading Scale:
Course grade boundaries will be no higher than,

A= $480 - 442$ A$-$ = $441 - 432$ B+ = $431 - 420$ B= $419 - 396$ B$-$ = $395 - 384$
C+ = $383 - 360$ C= $359 - 324$ C$-$ = $323 - 312$ D= $311 - 275$ E= $274 - 0$

Actuarial Science Minor:
For more information on the actuarial science minor at the University of Florida and the Florida Actuarial Student Society see (http://www.stat.ufl.edu/academics/ugrad/ActuarialScience/index.htm). Dr Demetris Athienitis is the academic advisor for all undergraduate statistics majors, statistics minors and actuarial science minors.

ABOUT THE DEPARTMENT OF STATISTICS:
The Department of Statistics at the University of Florida is one of the nation's leading statistics departments. The Department awards approximately 17 Bachelors degrees, 14 Masters degrees, and 8 Ph.D. degrees per year. The Statistics Department, chaired by Professor M. Daniels, has a faculty of 13 members whose research interests include both theoretical and applied statistics. We welcome inquiries about our programs. The Statistics Department's main office is 102 Griffin-Floyd Hall (telephone 392-1941).