

## **Course Syllabus for STA 4930 Life Contingencies Spring 2016, Section 1000**

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**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>

**Instructor:** Ronald H. Randles

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**Office Hours:** 2:00-3:15 PM Tuesdays and Thursdays

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**Office Hours:** 10:30-11:30AM Mondays and Fridays, 11:00AM-1:00PM Wednesdays

**Prerequisite:** STA 4183 AND 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, life insurance benefits, lifetime annuities, and the mathematics of pensions.

This course attempts to cover portions 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 and chapter 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 at set dates announced in advance. Assigned exercises are good examples of the types of questions that will appear on exams.

**Calculators:** The following Texas Instruments calculators may be used during exams: BA-35, BA II Plus, BA II Plus Professional, TI-30Xa, TI-30X II or TI-30XS Multiview. No other calculators may be used. Each student is responsible for having their own individual calculator in operational condition for exams. NO PROGRAMMABLE CALCULATORS MAY BE USED ON EXAMS.

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

Thursday, January 28 Thursday, February 25  
Thursday, March 24 Tuesday, April 19

**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. They will be announced one class in advance. Quizzes emphasize the focal point issues and formulas (notation) covered in class since the previous quiz or exam. The total number of points you have received on quizzes (deleting your two lowest quiz scores) divided by the total number of quiz points possible will be applied to **40** points. 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 O= 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 Brett Presneli, 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).