Introduction to Actuarial Mathematics

MAP 4170, 4 semester hours
Wednesday 1:00 – 3:00 in 222 MCH
Thursday 2:00 – 3:00 in 222 MCH

Instructor’s Information
Name: Steve Paris
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Office: 202A LOV
Office Hours: 3:15 – 4:15 Wednesday

Delivery Method: Online-Lab Model

The online part of this model refers to students learning the course material from viewing online videos. (See below for purchasing options for the learning videos.) The lab part of this model refers to students meeting once a week with the instructor to discuss the material and go over homework problems the students may have trouble solving. During this semester, the lab will meet each Wednesday in 222 MCH from 1:00 p.m. to 3:00 p.m.

Class Materials, Information, and Communications

You have three options for purchasing the learning videos for this course:

1. Abacus Learning Institute (http://abacuslearninginstitute.com/) The specially discounted price for FSU students for Abacus Learning Institute’s FM online course is $123.75. At checkout, enter the discount code FSUFM2DISCOUNT to receive the reduced price. Also, note that Module 1 of their FM online course is available for free. This allows you to get materials immediately at no cost.
3. The Infinite Actuary (http://www.theinfiniteactuary.com/) The price for The Infinite Actuary’s FM online seminar is $495, with a full-time student discounted price of $247.50.

You are also required to have a TI BA II Plus (or Professional) calculator.

The course webpage is at http://www.math.fsu.edu/~paris/MAP4170/index.html. There you will find this syllabus as well as notes and some old exams. Ms. Danielle Lewis in room 205-D LOV maintains an email group alias for all actuarial science students. It is your responsibility to make sure you are included on the alias. If you are not currently on the alias, give Ms. Lewis the email address to which you would like correspondences to be sent. Class communication will sometimes rely on email to this department alias for actuarial students. It is recommended that you check often for any new correspondences.
Prerequisites and Registration

You must have completed MAC 2312 (Calculus II) with a grade of C- or better. If you have not satisfied this prerequisite, then you will not be permitted to enroll in this course.

Although not a prerequisite for this course, you should register for STA 4321 (Intro Math Stats) as soon as possible after having completed its prerequisite course MAC 2313 (Calculus III). This statistics class introduces you to the concepts that are tested on SOA Exam P.

Exams, Makeup Policy, and Grades

There will be 4 100-point exams and a two part 100-point comprehensive final exam. Each exam has a strict time limit as indicated below and will be administered in 222 MCH starting at 2:00 p.m. sharp. These will be the only dates that we meet on Thursday.

Exam 1: Thursday, June 1\textsuperscript{st} (1 hour exam)  
Exam 2: Thursday, June 22\textsuperscript{nd} (1.25 hour exam)  
Exam 3: Thursday, July 13\textsuperscript{th} (1.25 hour exam)  
Exam 4: Thursday, July 27\textsuperscript{th} (1 hour exam)  
Final: Wednesday, August 2\textsuperscript{nd} and Thursday, August 3\textsuperscript{rd} (1 hour each day)

All exams will be multiple-choice exams and will be graded two ways: actuarially and with partial credit. Your actuarial score will be the percentage of problems you answer correctly. There is no penalty for guessing, and so all questions on all exams should be answered. Your partial credit score is self-explanatory. Note that no points will be credited on your partial credit score for guessing a correct answer. Your overall exam grade will be the average of your actuarial and partial credit scores.

Makeup exams will not be given. If you miss an exam due to an unexcused absence, then you will receive a 0 for that exam. If you miss an exam due to an excused absence, then your final exam score will be substituted for the missed exam score.

Grades will be determined according to the following scale, based on the sum of your overall exam grades:

\begin{align*}
A: 448-500 & \quad B: 398-447 & \quad C: 348-397 & \quad D: 298-347 & \quad F: 0-297
\end{align*}

Course Objectives

The course objectives are for students to develop a mastery of financial mathematics for actuaries, and in particular the mathematics of interest and discount, annuities, bonds, loans, duration and convexity of cash flows, and the term structure of interest rates. Other course objectives are for each student to understand the long-term individual study commitment necessary to achieve a credential within one of the actuarial societies and for each student to increase their knowledge of the actuarial profession.
Future Seminole Actuaries Undergraduate Club and Professionalism

By registering for this class, you are now a member of the FSU undergraduate actuarial science club, called Future Seminole Actuaries (FSA). There are no FSA events for the summer. As an FSU actuarial science major, you are expected to exhibit professional behavior always, and in particular with respect to phone and email communications. Email with spelling, grammar, and/or punctuation mistakes will not be tolerated.

Actuarial Exam Registration

You are encouraged to try your best to pass Exam FM before the fall semester. The dates and deadlines for the administrations of Exam FM for the rest of this calendar year are:

- CBT Dates 08/03/17 – 08/14/17; (Registration Deadline: 06/27/17)
- CBT Dates 10/12/17 – 10/23/17; (Registration Deadline: 09/06/17)
- CBT Dates 12/05/17 – 12/16/17; (Registration Deadline: 10/31/17)

Academic Honor Code

A copy of the University Academic Honor Code can be found in the current Student Handbook. You are bound by this in all of your academic work. It is based on the premise that each student has the responsibility 1) to uphold the highest standards of academic integrity in the student’s own work, 2) to refuse to tolerate violations of academic integrity in the University community, and 3) to foster a high sense of integrity and social responsibility on the part of the University community. Please note that violations of this Academic Honor System will not be tolerated in this class. Specifically, incidents of plagiarism or failure to attribute the source of your material of any type or referring to any unauthorized material during examinations will be rigorously pursued by this instructor. You have successfully completed many mathematics courses and know that on a “test” or “quiz” you may not give or receive any help from a person or written material except as specifically designed acceptable. Out of class you are encouraged to work together on assignments but plagiarizing the work of others or of study materials is academically dishonest.

A.D.A. Statement

Students with disabilities needing academic accommodations should:
1. register with and provide documentation to the Student Disability Resource Center (SDRC)
2. bring a letter to the instructor from SDRC indicating you need academic accommodations.

This should be done within the first week of class. This and other class materials are available in alternative format upon request.