Ma 498 ~ Applications of Actuarial Mathematics
Spring Semester 2020-2021

Instructor:	Dr. Melissa Gardenghi
Office:	Alumni 38
Office Hours:	Daily by appointment
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Course Website:	https://math.bju.edu/ma498/

Course Description:

A study of the applications of actuarial mathematics consistent with the SOA Exam LTAM syllabus.

Prerequisite: Ma 418 – Actuarial Mathematics I

Course Context: This course supports the following goals of the actuarial program:

ASM2: The student will progress logically from premises to valid conclusions in a variety of mathematical and applied contexts including analysis, statistics (both theoretical and applied), probability, and finance.

AMS3: The student will apply mathematics to actuarial problems (such as financial math and probability modeling) in exercising the biblical mandate to have dominion over the earth.

Course Goals:

CG1: Introduce the student to the content and style of questions presented on the Long Term Actuarial Mathematics Exam (Exam LTAM). ASM2 and ASM3

CG2: Prepare the student, including speed and accuracy, to pass Exam LTAM. ASM2 and ASM3

Course Objectives: The student will be able to

1. Compile necessary study notes to be able to thoroughly prepare for a SOA exam. CG2
2. Determine the appropriate approach for solving problems similar to those given on Exam LTAM. CG1
3. Complete a practice exam during a three hour period with an acceptable percentage of correct answers. CG2

Course Requirements and Evaluation:

1. The grade in this course will be based on the following (and can be estimated using the Study Log Excel file):
   a. completion of a study plan/budget – 5% (due on the start of the second class)
      i. when will the study happen during the week
      ii. when will you learn new material, when will you review
      iii. when in the semester will you start taking practice exams
      iv. how do you plan to be efficient in your study – be specific (time limits, goals, start-up costs, self-imposed pressure, etc.)
      v. your grade on this portion will be dependent on how well your plan meet your study goals
   b. completion of your concept map and study notes – 10%,
      i. one-page map including all Exam LTAM content
      ii. more detailed notes per large topic (preferably boiled down to the biggest ideas on one page)
   c. quality time spent in preparation for the exam (computed as quality time = time in # of hrs * quality rating/4; where quality rating is given on a scale of 1 to 4) – 30%,
   d. time spent reviewing previous material – 5%
   e. number and accuracy of practice problems completed – 25% and 15% respectively,
   f. scores on practice exams – 10%.
2. Passing the Exam LTAM at any point during the semester will immediately result in an A in the course (no other work will be required).

Office Hour Appointments:

Office hour appointments can be made using the Calendly site.

Instructions for using the site: https://math.bju.edu/media/bju-math-division/bju-math-department/melissa-gardenghi/Office-Hours-Procedure.pdf

A direct link to Calendly for making appointments with Dr. Gardenghi: https://calendly.com/mgardeng/20min

General Policies:

1. You are expected to attend class Thursdays in accordance with University policy. See the student handbook for attendance requirements. Note that missing class does not allow you to not meet your weekly study requirements.
2. You will maintain the study log (see the provided Excel spreadsheet) to document your study efforts. You will post the Excel file (and keep it updated) in your personal Exam Prep MS Teams channel, so that I can keep tabs on your progress.
3. You may find it beneficial to study together. This can be very valuable for several reasons, and it is highly recommended.

Textbook:

There is no required text for this course. You will need to acquire study resources to use. Students in the past have found the Adapt exams at Coaching Actuaries a very helpful resource. (see https://www.coachingactuaries.com)