

MA 355 PROBLEM SOLVING IN ACTUARIAL SCIENCE (SPRING 2011)

Time and Place. T,Th 9:30-10:50, E382

Instructor. Dr. Gabriela Sanchis, 384 G Esbshade Hall, Office Phone: 361-1339

E-mail. sanchisgr@etown.edu

Office Hours. W: 9:30 - 10:50 a.m.; M, T, Th: 1:00-2:30; ; and by appointment.

Textbook. ASM Study Manual for Exam P/Exam 1 (14th Edition) by Krzysztof Ostaszewski

Prerequisites. Ma 351 (Theory of Probability)

Learning Outcomes.

- Students will be able to demonstrate knowledge of the topics of theory of probability and risk management according to the learning objectives described in the Society of Actuaries (SOA) Basic Education Catalog for Preliminary Actuarial Examination in Probability (P);
- Students will become independent learners who can successfully study for and pass actuarial exams.

Attendance. You are expected to attend all classes. Excessive amounts of absenteeism may result in a lower grade. If you do miss a class, it is your responsibility to obtain from a classmate any notes, assignments, handouts, or anything else you may have missed.

Calculator. The only calculators permitted in this course are the ones approved by the Society of Actuaries (SOA) in their catalog. SOA permits on their exams only the following calculators:

- the battery- or solar-powered Texas Instruments BA-35 model calculator,
- the BA II Plus, the BA II Plus Professional,
- the TI-30Xa or TI-30X II (IIS solar or IIB battery),
- the TI-30XS Multiview or the TI-30XB Multiview.

Candidates may use more than one of the approved calculators during an examination.

For this course you are welcome to use any and all of these calculators.

Course Schedule. The course is divided into two very different parts, one followed by the other.

First, we will start with a quick review of the theory, divided roughly into four big topics. After each topic, there will be an in-class test. The following table gives the test dates and topics:

Test	Date	Topic
Test 1	Tuesday, January 25	General Probability
Test 2	Thursday, February 03	Univariate Distributions
Test 3	Thursday, February 17	Multivariate Distributions
Test 4	Thursday, March 03	Risk Management

Right after Spring Break, we switch gears and begin an intensive preparation for the P exam by going through several of the practice exams in the ASM manual. We will have five three-class blocks; during the first and second lecture of each block, we will review questions from one of the practice exams from the text. For homework, you will be working out your own individualized versions of the questions on these exams by completing a WebWork assignment. During the third class of the block (except for the last block), you will complete a quiz consisting of 15 multiple-choice questions randomly chosen from the practice exam (with the numbers changed). Only the answers are checked, no partial credit is given.

The following is a tentative schedule for the second half of the course:

	block 1	block 2	block 3	block 4	block 5
Discussion of Practice Exams	03/15	03/24	04/04	04/14	05/03
	03/17	03/29	04/07	04/26	05/05
Quiz	03/22	03/31	04/12	04/28	

Final Exam. In addition to the four exams and five quizzes mentioned above, there will be a comprehensive final exam on TUESDAY, MAY 10, 7:30 to 10:30 am. All the tests, quizzes, as well as the final are closed-book, in-class exams. No notes, written or electronic, are allowed. You should bring your approved calculator(s) to the tests, quizzes, and the final exam.

Grading. Your final grade will be calculated in the following way:

- 40% of the grade comes from the four in-class tests,
- 20% of the grade comes from the four quizzes,
- 20% of the grade comes from the five WebWork assignments,
- 20% of the grade comes from the Final Exam.

Course grades will be calculated according to the following weighting:

94-100 A; 90-93 A-; 87-89 B+; 83-86 B; 80-82 B-; 77-79 C+; 73-76 C; 70-72 C-; 67-69 D+; 63-66 D; 60-62 D-; below 60 F

P Exam. The P Exam is given several times a year. The next opportunity to take it is during the period March 17 - March 28, and the registration deadline is February 3. **Anyone who passes the P exam in March will receive an automatic A for the course. Bring me a copy of your official grade notification as soon as you receive it so that I can change your grade if necessary.** If you are unsuccessful or do not attempt the exam in March, you should register to take it in May (May 19 - May 31). The registration deadline for this sitting is April 6.

Academic Integrity. All work must be one's own and must comply with the Standards of Academic Integrity defined in the Elizabethtown College Catalog (see <http://catalog.etown.edu/> and then click on **Academic Policies** in the menu on the left, and then on **Academic Judicial System**). More specifically, you may (and are encouraged to) help each other on the WebWork homework assignments, but you must type and submit your own work. No collaboration on exams is allowed.

Disability. Elizabethtown College welcomes otherwise qualified students with disabilities to participate in all of its courses, programs, and activities. If you have a documented disability and require accommodations to access course material, activities, or requirements, you must:

- (1) Contact the Director of Disability Services, Lynne Davies, in the Center for Student Success, BSC 228, by phone (361-1227) or email daviesl@etown.edu.
- (2) Meet with me, the instructor, within two weeks of receiving a copy of the accommodation letter from Disability Services to discuss your accommodation needs and their implementation.