

Course Overview and Introduction

Lecture: Week 1

Course instructor

Emil Valdez

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Office Hours:

Wednesdays, 10:00 am – 1:00 pm
or by appointment (email/in advance)

Graduate assistant

Edward (Ed) Cruz

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Office Hours: To be announced

Course objectives

- New learning objectives for SOA MLC that took effect Spring 2012 exam and later modified for the Spring 2014 (and possibly beyond) exams
- New exam format took effect in the Spring 2014 exam
 - 4-hour exam; written-answer plus multiple choice
- First half of the SOA MLC exam
- General topics covered (in STT 455) are:
 - Survival models (single lives)
 - Life tables and selection
 - Life insurance
 - Life annuities
 - Premium calculation

Textbooks for the course

- **Highly-Recommended Text:**

- D. Dickson, M. Hardy and H. Waters, *Actuarial Mathematics for Life Contingent Risks*, second edition, Cambridge University Press, 2013.
- Any possible **Errata** are available on the publisher's website. Links are provided at the course website.

- **Additional useful references:**

- Camilli, S., Duncan, I. and R. London, 6th edition, *Models for Quantifying Risk*, ACTEX Publications, 2014. (Available late August 2014)
- Bowers, N.L., Gerber, H.U., Hickman, J.C., Jones, D.A. and C.J. Nesbitt, 2nd edition, *Actuarial Mathematics*, Society of Actuaries, 1997.

Background reading

For background material about life insurance, please read:

- Chapter 1 of the textbook on “Introduction to Life Insurance”.

Course assessments

You will be assessed according to the following scale:

| | | |
|-------------------|-------------|-------------------------|
| Homework 1 | 15% | September 17 |
| Class test 1 | 20% | October 15 |
| Class test 2 | 20% | November 12 |
| Homework 2 | 15% | December 3 |
| Final examination | 30% | December 9, 5:45-7:45pm |
| Total | 100% | |

Course website

We have a course website:

<http://www.math.msu.edu/~valdezea/stt455f13/>

Some suggestions

Here are some suggestions to maximize learning from this class:

Effective notetaking. Think in class, don't just take notes. It helps to go over your notes after class to identify what is important. Leave room to add details later.

Reading ahead. Lectures are important, but certainly do not cover everything and can include only a sample of examples. You need to read the text. Try to work out suggested problems and fill in missing steps as you read. Formulate questions before coming to class.

Consistent effort. Do not put off review and study until test time! Distributing your effort is more effective than cramming just before a test.

Doing problems. Do more problems than are suggested. Write your solutions neatly so that they are useful for review later.



Attendance

We encourage classroom attendance, and from time to time, I will check for attendance.

You will not be directly penalized for missing classes, but if you have an excellent record of attendance throughout the semester, you may be rewarded especially if your final mark is close to a borderline grade.