

ACT 348H1F, Advanced Life Contingencies, Fall 2015

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| Lecture Section | L0101 | |
| Lecture times, location | M 3:00 p.m.-5:00 p.m. – RW110 W 11:00 a.m.-12:00 p.m. – RW110 | |
| Instructor | Dr. Andrei Badescu, SS6024 tel: 416-946-7582 badescu@utstat.toronto.edu | |
| Instructor office hours | Friday: 11:00 a.m.- 1:00 p.m. – SS6024 or by appointment. | |
| Teaching assistants: | Bill Huang Lei Sun | |

Texts

Required

- Exam MLC Study Guide - 2015, Vol 1A and Vol 1B, Samuel A Broverman , available at ALICOs, St George and College.

Additional

- Actuarial Mathematics, 2nd Ed., by Bowers et al, Society of Actuaries, available on the SOA website to be ordered.
- Actuarial Mathematics for Life Contingent Risks, Dickson D, Hardy M., Waters

Course Objective:

This course is designed to help prepare you for the portion of Exam MLC of the Society of Actuaries (www.soa.org) and for future university courses. Questions and in-class discussions are encouraged.

Coverage:

- Review of Intro to Life Contingencies (S1-S17)
- Benefit Premiums (S18-S19)
 - o The loss at issue random variable
 - o Equivalence principle premiums
- Expense Augmented Models (S20)
- Benefit Reserves (S21-S27)
 - o Prospective and retrospective reserves
 - o Reserves on additional policy types
 - o Expense augmented reserves
 - o Recursive relationships for reserves
 - o Modified reserves, policy profit
- Multiple Life Functions (S28-S31)
 - o The joint life status
 - o The last survivor status
 - o The common shock model
 - o Multiple life insurance and annuities
 - o Contingent probabilities and insurances

Test:

- Term test – 2nd of November 2015, 3-5 pm (rooms TBA)
- Final Exam (TBA)

Marking Scheme:

The final course mark will be determined via a term test, worth 40% and a final exam worth 60%. These weightings will not be changed, either for the whole class or for any individuals. The test will NOT be in multiple choice format, BUT the final exam will be in multiple choice format.

Missed Term test:

There will be no written make-up test. If you miss the term test, you are required by faculty regulation to submit, **within one week**, appropriate documentation to the course instructor or the Departmental office: SS6018. Print on the documentation your name, student #, the course number and the date. I shall be skeptical about accepting medical certificates unless the doctor specifically indicates that in his/her opinion there was a disabling health problem on the day of the test. If your documentation is accepted, there will be an *oral examination* of 1 ½ hours at a time decided by the instructor, but no later than a week from the test date.

Calculator:

Please bring it to each class – it will make lectures easier to remember if you work problems as they are discussed. A calculator is essential for working exercises, tests and final exam. The Texas Instruments BA II PLUS calculator is one of the calculators allowed on the Society of Actuaries examinations; it has the financial functions that would be needed for this course and is recommended. All non-programmable calculators are allowed.

E-mail policy:

E-mails will only be answered if they are from a U of T address. When there are many e-mail requests, not all can be answered, but an answer to a common question will be posted on the course web page.

Updates:

All the possible updates regarding to this course will be made in class and on Blackboard. The student should check Blackboard regularly.