

ACT 455H1S, Advanced Topics in Actuarial Science, Winter 2016

Lecture Section	L0101
Lecture times, location	Tu 2:00 p.m. - 4:00 p.m. – SS1088 Thur 2:00 p.m. - 3:00 p.m. – SS1088
Instructor	Dr. Andrei Badescu, SS6024 badescu@utstat.toronto.edu
Instructor office hours	Monday, Wednesday: 10:00 a.m.- 12:00 p.m. – SS6024 or by appointment.
Teaching assistants:	Alex Yang Office Hours: Thursday 12-1

Texts:

Required

- *Exam MLC Study Guide* - 2015, 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 H.

Approximate Coverage:

- Multiple Decrement Models – Sections 32-34 from MLC Study Guide, Volume 1B, 2015
- Discrete Time Markov Chains - Sections 36, 37 MLC Study Guide, Volume 1B, 2015
- Continuous Time Markov Chains - Sections 38, 39 MLC Study Guide, Volume 1B, 2015
- Variable Interest Rates – Section 40 MLC Study Guide, Volume 1B, 2015.
- Profit Testing and Universal Life Insurance – Sections 41, 42 MLC Study Guide, Volume 1B, 2015.
- Pension Mathematics – Section 35

Course Objective:

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

Marking Scheme:

The final course mark will be determined via 1 in-class term test, worth 40% and a final exam worth 60%. These weights will not be changed, either for the whole class or for any individuals. The test and the final exam will NOT be in multiple choice format.

- Term Test - 23 February, 1 ½ hours (during the class time)
- Final Exam - TBA

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. 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.

Calculator:

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. Please go to the SOA website and check the list of calculators allowed by SOA and those will be ok for this course.

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 blackboard.

Updates:

All the possible updates regarding to this course will be made in class and on blackboard.