

## ACT 230H1F 201209

(Sep 17, 2012b version: please monitor updates at [www.utstat.utoronto.ca/sharp](http://www.utstat.utoronto.ca/sharp))

### Professional Society of Actuaries and CFA Exams

It is important to note that this course does not count as an ACT240 credit in the UTSG actuarial science programme. To qualify as Fellow, Society of Actuaries takes years of tough self-study and the actuarial job market cannot handle the large numbers graduating from Act Sci programmes in Canada. The Chartered Financial Analyst (CFA) exams are an easier (but not easy) option, use the material from this course and have a fairly similar examination format: see [www.utstat.utoronto.ca/sharp](http://www.utstat.utoronto.ca/sharp) and [www.cfainstitute.org](http://www.cfainstitute.org).

### Course Objective:

This course will be taught and graded in a way that takes more into account the needs of non-actuarial students than does the corresponding downtown actuarial specialist course ACT240. You are expected to read and understand the descriptive portions of the text yourself. Time is spent partly on practical situation affecting most adults: credit card interest, amortization of loans, mortgage availability etc. Questions and in-class discussions are encouraged.

### Text:

Prof Broverman's Fall 2008 or later Study Guide for Exam FM, to be made available at a pre-notified lecture for, probably, \$35 cash – please bring it! Please buy on the day that ActSci Club personnel sell it in lecture – it is printed specially in bulk to give you a low price and single copies may not be available after that except from the US at about \$200. You are expected to read and understand the descriptive portions of the guide yourself. Recommended: *Mathematics of Investment and Credit, 4<sup>rd</sup> Ed.*, Samuel A Broverman, ACTEX Publications, 2008, plus *Solutions Manual*, both available in bookstore.

### Calculator

Please bring a non-programmable calculator with  $y^x$  key to all tutorials, lectures and exams. The TI BAII Plus financial calculator is discussed in the Exam FM manual. It is an optional purchase for this course since test and exam questions in this course will avoid situations (eg some calculations of interest rate) where a financial calculator is essential.

### Exams:

The best preparation for this type of exam is 'problems, problems, problems'. The reading material has many exam-type questions. You will wish to do all the relevant assignment questions before each test and final exam, and preferably many others as well. As for many professional exams, care will be taken to ensure the privacy of your answers by use of assigned seating and by the provision of several versions of tests and final, with different question orders and with dummy questions to make Scantrons more private.

### Participation lasers:

Please leave your participation laser in one of the piles at the end of every lecture. I pay for them personally in the hope that you will find the easy participation helpful-but it does mean that if you take them home then it seems a lot like theft to me. Use them as indicated in class to e.g. point to suggested answers, to unclear points, to give your opinion etc. Pointing at my eyes (or at the clock) is discouraged, thank you. Also, please don't laser-slice your neighbours, unless of course they whisper in lecture!

### Medical certificates are carefully and skeptically investigated in accordance with University regulations:

A few years ago, 20 out of every 100 students would produce doctors' certificates. Now University policy is very strictly interpreted and very strictly enforced. Medical certificates must be signed by an Ontario-registered MD, with registration number and phone number, and the date of certificate relative to claimed sickness must be within the limit imposed by University rules. We are 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. Certificates saying "Needs rest" or "injured foot" or "cannot concentrate" or similar will be rejected, as will certificates from chiropractors and acupuncturists. The doctor should be contactable by us for verification. It is expected that each student with accepted documentation will be required to take a rigorous make-up test at a chalkboard. If documentation is not provided or is not accepted, your test mark for the missed test will be zero.

The timing of lecture coverage will likely deviate from the day-to-day schedule given here. This outline and updates are at <http://www.utstat.utoronto.ca/sharp>. Assignments and other info are posted on the course Blackboard password-accessed portal – you will wish to monitor the portal every few days. Also please ensure that the portal ‘knows’ an email address for you which you monitor frequently, otherwise you’ll miss course-related emails.

### Marking Scheme:

Lecture: surprise quizzes	Obligatory attendance. Lectures will be only partially posted on the web. There will be at least five pop-quiz micro-tests in lecture during the term, not announced in advance. Material is usually new that day. For lecture quizzes (only) discussion with other students is OK, but not copying. Up to two can be missed without penalty. Graded 7-10. In the past, students detected doing quizzes for absent friends have been failed in the course.	5%
Tutorials: assignment verification	Obligatory attendance. Assignment must be done but is not graded. In each tutorial for which an assignment is due, a verification quiz on at least one assignment question, perhaps slightly modified, will be given. This is intended as verification that you did the assignment so no help from other students allowed. Up to two can be missed without penalty. Graded 7-10.	5%
Test 1	Multiple choice; 40% of questions are modified from assignments	20%
Test 2	Multiple choice, 40% of questions are modified from assignments; mostly on material since TT1.	20%
Final	Multiple choice, on entire term, no 40% guarantee	50%

If you miss more than two in-lecture surprise quizzes and/or two tutorial verification quizzes, and claim medical reasons, you will need to show medical certificates for all missed quizzes, including the ‘giftie’ first two. Weightings will not be changed, either for the whole class or (for fairness to the whole class) for any individuals.

<i>Lecture (First Sep 11, 2012 at 7 pm)</i>	T 7:00-9:00 pm	SS2127	
<i>Instructor and office hours</i> Keith Sharp PhD FSA FCIA CFA <a href="mailto:sharp@utstat.utoronto.ca">sharp@utstat.utoronto.ca</a> <a href="http://utstat.utoronto.ca/sharp">http://utstat.utoronto.ca/sharp</a>	T 2:00pm-3:00pm W 2:00pm-3:00pm	SS6007 SS6007	
<i>Tutorials (First Sep 18, 2012 at 6pm)</i> Chong, Yuxiang <a href="mailto:chong@utstat.utoronto.ca">chong@utstat.utoronto.ca</a> Huang, Xuancheng <a href="mailto:bill@utstat.toronto.edu">bill@utstat.toronto.edu</a> Ng, Adam <a href="mailto:Adam@utstat.utoronto.edu">Adam@utstat.utoronto.edu</a>	<i>Tutorial</i> T 6:00-7:00 pm T 6:00-7:00 pm T 6:00-7:00 pm	SS2127 SS1072 SS1084	<i>Family Name</i> A-K L-R S-Z
<b>Topic Coverage</b>	<b>Lecture and test date 2012</b>		
L01: Sec 01: Effective rates	Sep 11		
L02: Sec 02: Effective rates	Sep 11		
L03: Sec 02; Nominal rates, credit cards	Sep 18		
L04: Sec 03: Constant force of int, inflation	Sep 18		
L05: Sec 04: Annuity	Sep 25		
L06: Sec 04; Annuity (cont)	Sep 25		
TERM TEST 1 Location SS2127/TBA	Oct 02 <b>6:00 pm</b>		
L07: Sec 05: Annuity at any time point	Oct 02 7:00 pm		
L08: Sec 05: Annuity at any time (cont)	Oct 09		
L09: Sec 06: Different int and payt periods	Oct 16		
L10: Sec 07: Geometric prog of payments	Oct 23		
L11: Sec 09: Amortization of loan, mort	Oct 23		
TERM TEST 2 Location: SS2127/TBA	Oct 30 <b>6:00pm</b>		
L12,13: Sec 11: Bond valuation	Oct 30 7:00pm		
L14,15: Sec 11: Bond valuation (cont)	Nov 06		
Break	Nov 13		
L16: Sec 13: Return on fund	Nov 20		
L17: Sec 13: Return on fund (cont)	Nov 27		
L00: Exam run-up	Dec 04		