

## UTSG-ACT230 F10

(Nov 26, 2010 version, please monitor [www.utstat.utoronto.ca/sharp](http://www.utstat.utoronto.ca/sharp) for changes)

<i>Lecture</i> (First Sep 14, 2010 at 7 pm)	T 07:00-09:00 pm	UTSG-RW110	
<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>	M 09:00-10:00 am M 04:00-05:00 pm T 11:30-12:30 pm T 04:00-05:00 pm R 11:30-12:30 pm	UTSG-SS6007 UTM -South2110T UTSC-SW632 UTSG-SS6007 UTSC-SW632	
<i>New College personnel hours for all students</i>	T 3-5; W12-5; R12-3	WE68A(Wetmore bmt)	
<i>Tutorials</i> (First Sep 21, 2010 at 6pm) Ya-Ching Liao <a href="mailto:liao@utstat.utoronto.ca">liao@utstat.utoronto.ca</a> Xinyue Liao <a href="mailto:xinyue@utstat.utoronto.ca">xinyue@utstat.utoronto.ca</a>	<i>Tutorial</i> T 06:00-07:00 pm T 06:00-07:00 pm	SS1072 RW143	<i>Fmly Name</i> A-L M-Z
<b>Topic Coverage</b>	<b>Lecture and test date 2010</b>		
L01: Sec 01: Effective rates	Sep 14		
L02: Sec 02: Effective rates	Sep 14		
L03: Sec 02; Nominal rates, credit cards	Sep 21		
L04: Sec 03: Constant force of int, inflation	Sep 21		
L05: Sec 04: Annuity	Sep 28		
L06: Sec 04; Annuity (cont)	Sep 28		
TERM TEST 1 RW110 (A-L), RW117 (M-Z)	Oct 05 <b>6:00 pm</b>		
L07: Sec 05: Annuity at any time point	Oct 05 7:00 pm		
L08: Sec 05: Annuity at any time (cont)	Oct 12		
L09: Sec 06: Different int and payt periods	Oct 19		
L10: Sec 07: Geometric prog of payments	Oct 26		
L11: Sec 07: Geom payts, indexed pension	Oct 26		
TERM TEST 2 RW110 (A-L), RW117 (M-Z)	Nov 02 <b>6:00pm</b>		
L12,13: Sec 09: Amortization of loan, mortgage	Nov 02 7:00pm		
Break	Nov 09		
L14,15: Sec 11: Bond valuation (cont)	Nov 16		
L16: Sec 13: Return on fund	Nov 16		
L17: Sec 13: Return on fund (cont)	Nov 23		
L00: Exam run-up	Nov 30		
L00: Exam run-up	Dec 07		

### 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. Those who nonetheless find themselves interested in becoming actuaries are advised to attempt the professional SoA FM Exam though you will need to do maybe 200 hours self-study for it. No disgrace if you fail-in fact you can keep it secret if you wish (I took some SoA exams in Buffalo NY just in case I failed one!). Applications and details at [www.soa.org](http://www.soa.org). 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).

### Texts and Web Page

Required: Prof Broverman's manual for Exam FM, available to students for the cost of printing (about \$40 TBA). Actuarial Science club reps will be at the lecture only one evening (Sep 21, 2010) to sell the manual – please bring exact change. Recommended: *Mathematics of Investment and Credit, 4<sup>rd</sup>. Ed.*, Samuel A Broverman, ACTEX Publications, 2008, plus *Solutions Manual*, both available in bookstore. Please monitor <http://utstat.toronto.edu/sharp> and the Blackboard portal: assignments, documents updates etc.

### 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.

### 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

As for the professional exams, care will be taken to ensure the privacy of your answers in the course term tests and exams by use of assigned seating, when permitted by university authorities, and by the provision of several versions of tests and final, with different question orders. At least 40% of the marks on the tests and the December (not necessarily the deferred) final exam will be from assignments (solutions posted on web) with small changes such as to the interest rate. The best preparation for this type of exam is 'timed problems, problems, problems'. Prof Broverman's FM manual 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. There will be a few (likely between five and ten) pop-quizzes in lecture during the term, not announced in advance, usually on the current lecture material.

### Participation lasers:

Please leave your participation laser in one of the piles at the end of every lecture. I buy them personally from dollar stores in the hope that you will find the easy participation valuable. In-class questions are encouraged too!

### Marking Scheme:

Lecture: pop quizzes	Worst two disregarded, so can miss two without penalty. OK to cooperate though not to directly copy answers. Graded 7-10.	5%
Tutorials	TA bases on weekly quizzes on one assignment question (assignments are not submitted). Don't cooperate or copy. Worst two disregarded, so can miss two without penalty. Graded 7-10.	5%
Test 1	Multiple choice	20%
Test 2	Multiple choice, concentrates on material since test 1	20%
Final	Multiple choice, on entire term, during final exam period	50%

Weightings will not be changed, either for the whole class or (for fairness to the whole class) for any individuals. Tests and exams will be entirely multiple choice.. For the second term test, only material since the first term test will be covered. Your worst two lecture pop-quiz grades (eg zero if you miss two pop quizzes) will be disregarded. If you miss more than two, and claim medical reasons, you will need to show medical certificates for all missed pop quizzes, including the 'giftie' first two. Same for the in-tutorial quizzes. These weightings will not be changed, either for the whole class or (for fairness to the whole class) for any individuals. The tests and final exam will be entirely in multiple choice format.

### Medical certificates:

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. 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. Please remember also the Arts and Sciences rule (from F 2010) that '*students who have been absent from class for medical or other unavoidable reasons AND require an accommodation for missed or late term work must record their absence using the ROSI Absence Declaration*'; this Declaration is a necessary but not sufficient requirement for absences in this course.

Suspected errors or omissions in this outline? Please tell Keith Sharp, [sharp@utstat.utoronto.ca](mailto:sharp@utstat.utoronto.ca) . GOOD LUCK!