

**UTSG-ACT240H1 F09  
(Version Oct 13, 2009)**

(Any changes to this will be at [www.utstat.utoronto.ca/sharp](http://www.utstat.utoronto.ca/sharp))

<i>Lecture</i>	M 10:00-12:00	MP102 (first Sep 14)	
<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://fisher.utstat.utoronto.ca/sharp">http://fisher.utstat.utoronto.ca/sharp</a>	M 09:00-10:00 M 04:00-05:00 T 11:30-12:30 T 04:00-05:00 R 11:30-12:30	UTSG-SS5027C UTM -South2110T UTSC- SW632 UTSG-SS5027C UTSC-SW632	
<i>Office hours for all students</i> Phillip Meng Du	<i>(Courtesy New College)</i> W10-12 and F10-12 R 12:00-2:00 pm	Wilson Hall 500D Wilson Hall 500D	
<i>TAs</i> Lan Gong <a href="mailto:gong@utstat.utoronto.ca">gong@utstat.utoronto.ca</a> Jing Fan <a href="mailto:jing@utstat.utoronto.ca">jing@utstat.utoronto.ca</a> PanPan Wu <a href="mailto:panpan@utstat.utoronto.ca">panpan@utstat.utoronto.ca</a> Wei (Becky) Lin <a href="mailto:becky@utstat.utoronto.ca">becky@utstat.utoronto.ca</a>	F 10:00-11:00 (First Sep 18)	MP 102 SS 1088 SS 1070 WI 524	<i>Family name</i> AA-Hsu Hu-Lim Lin-Strauss Sun-Zubair
<b>Topic Coverage</b>	<b>Lecture and test date</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: Force of int, inflation	Sep 21		
L05: Sec 04: Annuity	Sep 28		
L06: Sec 04; Annuity (cont)	Sep 28		
TERM TEST 1 in usual lecture room	Oct 05 <b>10:00 am</b>		
L07: Sec 05: Annuity at any time point	Oct 05 11:00 am		
THANKSGIVING	Oct 12		
L08: Sec 05: Annuity at any time (cont)	Oct 19		
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		
L11a: Sec 08: Arithmetic payments	Oct 26		
TERM TEST 2 in usual lecture room	Nov 02 <b>10:00am</b>		
L12: Sec 09: Amortization of loan	Nov 02 11:00am		
L13: Sec 09: Amortiz of loan, mortgage	Nov 09		
L13a: Sec 10: Sinking funds	Nov 09		
L14: Sec 11: Bond valuation	Nov 11 ("wacky")		
L15: Sec 11: Bond valuation (cont)	Nov 16		
L15a: Sec 12: Bond amort, callables	Nov 16		
L16: Sec 13: Return on fund	Nov 16		
L17: Sec 13: Return on fund (cont)	Nov 23		
L00: Exam run-up	Nov 23		
L00: Exam run-up	Nov 30		
L00: Exam run-up	Nov 30		
FINAL EXAM	Dec 09-18		

**Participation Lasers**

Please leave your participation laser in the box/bag/pile 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!

**Web Page:**

Please monitor <http://www.fisher.utstat.toronto.edu/sharp> and the Blackboard portal: assignments, documents etc.

**Privacy**

Photographs of all students will likely be taken in some classes and in term tests and final to aid in identification.

**Text**

Prof Broverman's F08=F09 (same except for a few typos) manual for Exam FM, to be made available to students for about \$40 (not in bookstore). You are expected to read and understand the descriptive portions of the manual yourself.

### Course Objective:

Preparation for the Society of Actuaries Exam FM. ACT240 and 245 together cover the FM material; you may decide to take FM before you finish the two university courses. This is not wasteful of your time because the self-study for the FM exam reduces the time you need to spend studying for the university courses. For ACT240 you are expected to read and understand yourself the descriptive portions etc of the FM manual not covered in class.

### Calculator

Please bring a TI BAII Plus financial calculator to all lectures, tests and exams. It is a calculator approved for both the Society of Actuaries and the Chartered Financial Analyst exams. So it is fairly readily available in eg downtown office supply stores, but you may wish to save your time by checking availability by phone. It is discussed in the Exam FM manual; please teach yourself how to use it well in advance of the first term test. The 'professional' version has the same functionality and is also approved for the exams – many of us find that the more positive key feedback of this version is worth the extra few dollars.

### Professional Society of Actuaries and CFA Exams

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. The actuarial job market cannot handle the large numbers graduating from Act Sci programmes in Canada, aim to get office work experience and to boost your communication skills. The Chartered Financial Analyst (CFA) exams are an easier (but not easy) option, make 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). A CFA doesn't guarantee a job either, but it is widely recognized by many types of employer as distinguishing a resume from the hundreds of other resumes in a pile.

### Course 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 final exam will be from assignments (solutions posted on web) and from additional (not to be posted) questions done in tutorial 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. For pop-quizzes (only) students are permitted to cooperate though not to directly copy answers.

### Marking Scheme:

Lecture: pop quizzes	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	55%

Lecture and tutorial attendance is obligatory. Lectures will not be fully posted on the web. If you miss more than two lecture pop quizzes, and claim medical reasons, you will need to show medical certificates for all missed pop 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.

### Medical certificates not really believed:

Please do not take this course if you intend to be sick for term tests. A few years ago, 20 out of every 100 students would produce doctors' certificates. So now, medical certificates in this course are rarely accepted and usually, to be fair to all students, none is accepted. Any certificate must be on the U of T form and signed by an Ontario registered physician with CPSO number (no chiropractors, acupuncturists etc.). We are sceptical 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 similar will be rejected, as will any certificate dated more than 3 days away from the test. The doctor should be contactable by us for verification. It is expected that any 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.

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

GOOD LUCK!