

ACT 245H1S 2011, Financial Principles for Actuarial Science:
(July 4, 2011 version: please monitor updates at www.utstat.utoronto.ca/sharp)

Lecture Section	L5101	
<i>Lecture times, location</i>	MW 7:10pm-9:00pm (First is July 4)	UT St George-SS1084
<i>Instructor</i>	Dr Keith Sharp FSA FCIA CFA sharp@utstat.utoronto.ca	UT St George-SS6007
<i>Instructor's office hours</i>	4:30-5:30 Tuesdays and Wednesdays	UT St George-SS6007 UT St George-SS6007
<i>Tute times, location</i>	MW 6:10pm –7:00 (First is July 6)	UT St George-SS1084
<i>TA</i>	Wei Lin (Becky) wei.lin@utoronto.ca	
<i>TA office hours</i>	Will be arranged for tests and final.	SS1091 Stat Aid Centre
Approximate Coverage	Lecture	FM Study Guide
Spot and forward rates	Jul 4 (No tute, lecture starts 7:10pm)	FM SG Sec 14
Duration, asset-liability matching	Jul 6 (First tute, 6:10pm)	FM SG Sec 14
Stock valuation, short sale, weird instruments	July 11	McD 1, FM SG Sec 15
TERM TEST 1	July 13, 6:10 pm – 7:00 pm SS1084	
Short sale, derivatives, forwards	July 13	McD 2, 5.1-5.4, FM SG Sec 15
Mark-to-market, futures	July 18	McD 2, FM SG Sec 15
Options	July 20	McD 2, FM SG Sec 16
Option strategies, insurance and collars, risk management	July 25	McD 3, 4 (miss out 4.5) FM SG Sec 17, 18
TERM TEST 2 (primarily material after TT1)	July 27 6:10 pm – 7:00 pm SS1084	
<i>(Exam P CBT July 20-31, beanactuary.org)</i>		
Financial forwards and futures	July 27, 7:10 pm – 9:00pm	McD 5.7, App 2A & 5
<i>Civic holiday</i>	Aug 1	
Commodity swaps	Aug 3	McD 8.1-8.2, FM SG 19
Interest rate swaps	Aug 8	McD 8.2, FM SG Sec 19
Wind-up	Aug 10	
FINAL EXAM	In exam week August	

Course Objective:

This course, with ACT240, is designed to help prepare you for the Society of Actuaries FM exam (same texts, www.soa.org) and the exams will copy the SoA format. You are expected to read the text ahead of the lectures. Questions and in-class discussions are encouraged. You will find it useful to sometimes read the *Wall Street Journal* (print or www.wsj.com) or *Globe and Mail Report on Business*. This course relates to the ‘real world’.

Calculator:

A non-programmable financial calculator is needed at each lecture, tutorial, test and exam. “Financial” can be defined here as “Can solve $3.803=(1-(1+i)^{-4})/i$ to get interest rate i ”. The Texas Instruments BA II PLUS calculator is one of the calculators allowed on the Society of Actuaries exams and on the CFA Chartered Financial Analyst exams: see www.cfainstitute.org; it has the financial functions that would be needed for this course and is recommended. U of T Bookstore is worth trying – sometimes it’s at the northeast cash. If you have trouble finding it, you can buy it on the web or phone ‘bank core’ *Grand and Toy* or *Staples* stores.

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 slice up your neighbours, unless of course they whisper in lecture!

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Required Texts

Prof Broverman's FM manual, Fall 2008 edition or more recent, plus, from UT Bookstore: *Derivatives Markets* by McDonald R.L. Chapters 1-5, 8.1-8.2, App 2A and 5B

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.	5%
Tutorials: assignment verifications	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, concentrates on material since test 2	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 assignment verifications, and claim medical reasons, you will need to show medical certificates for all missed sessions, 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 are carefully and skeptically investigated in accordance with University regulations:

A few years ago, 20 out of 100 students produced 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 similar will be rejected, as will certificates from chiropractors or 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.

Web Site:

The timing of lecture coverage will likely deviate from the day-to-day schedule above. 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.

Actuarial Job Market:

Enrolment in actuarial science programmes Canada-wide has multiplied by perhaps five in the last 25 years and entry level actuarial jobs have become much more difficult to find in Canada and most other countries. Employers tend to give a lot of weight to professional exam passes and to office work experience. Graduates with little work experience and mediocre communication skills have been having trouble finding an entry level job in an actuarial environment. However, non-actuarial employers are likely to see value in introductory courses on math-of-finance, interest, mortgages etc. Any students considering the Chartered Financial Analyst (CFA) exams will find such courses useful. Students enthusiastic about actuarial science and/or CFA are advised to safeguard their career prospects by developing a broader business background too, to ensure that their Excel skills are competitive, to get office work experience and perhaps to enhance communication skills e.g. by attending a Toastmaster club (www.toastmasters60.org/findClub.asp) and gaining the 'Competent Toastmaster' certificate for giving ten 7-minute speeches to about 15 people and using the feedback provided.

GOOD LUCK

ACT245H1S 2011W Outline v02 Suspected errors or omissions? Please tell Keith Sharp, sharp@utstat.utoronto.ca