

**ACT 245H1S Sum 2010, Principles of Actuarial Science  
Preliminary Draft Outline, Version June 28, 2010**

<b>Lecture Section</b>	L0101	
<i>Lecture times, location</i>	MW 7-9 (First lect 7:00pm Jul 5, 2010)	SS1084
<i>Tutorial</i>	MW 6:00 pm -7:00 pm (No tutorial Jul 5 29, first is July 7)	SS1084
<i>Instructor</i>	Dr Keith Sharp FSA FCIA CFA <a href="mailto:sharp@utstat.utoronto.ca">sharp@utstat.utoronto.ca</a>	
<i>Keith Sharp's office hours</i>		
<i>TA</i>		
<i>TA office hours (for all students) in SS2133 Stat Aid Centre</i>	Will be arranged before tests and final.	
<b>Approximate Coverage</b>	<b>Lecture</b>	<b>FM Study Guide</b>
Spot and forward rates	Jul 5 (No tute, lecture starts 7:00pm)	Sec 14-19
Duration, asset-liability matching (Exam P CBT)	Jul 7 (First tute, 6:00pm)	
TERM TEST 1	July 12, <b>6:00 pm</b> – 7:00 pm location TBA	
Stock valuation, short sale, weird instruments	July 14, 7:00 pm – 9:00pm	
		<b>McDonald</b>
Derivatives, Shorts, Lease rates	July 19	1-5, 8.1-8.2, App 2A and 5
Forwards and Options	July 21	
Insurance and collars, risk management	July 26	
TERM TEST 2 (Concentrates on material covered since Term Test 1)	July 28 <b>6:00 pm</b> – 7:00 pm location TBA	
Financial forwards and futures	July 28 7:00 pm – 9:00pm	
Financial forwards and futures (cont)		
Interest rate swaps		
Wrap-up		
FINAL EXAM	Exam period	

**Calculator**

A financial calculator is needed at each lecture, tutorial, test and exam. “Financial” can be defined here as ‘Can solve  $9=a_{10|}$  to get interest rate’. 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](http://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. If you have trouble finding it, you can buy it on the web or phone ‘bank core’ *Grand and Toy* or *Staples* stores.

## ACT 245H1S 2010Sum (Continued)

### Required Texts

**From UT Bookstore:** *Derivatives Markets* (Second Edition) by McDonald R.L. Chapters 1-5, 8.1-8.2, App 2A and 5:  
**TBA:** Prof Broverman's FM manual, Fall 2008 edition or later.

### Participation lasers:

Please leave your participation laser in one of the piles (by exit is OK) at the end of every lecture.

### Course Objective:

This course, with ACT240, is designed to help prepare you for the Society of Actuaries FM exam (same texts, [www.soa.org](http://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](http://www.wsj.com)) or *Globe and Mail Report on Business*. This course relates closely to 'real world' situations.

### Lectures

Lecture and tutorial attendance is obligatory. Lectures will not be fully posted on the web.

### Privacy

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

### Marking Scheme:

Lecture: pop quizzes	Worst two disregarded, so can miss two without penalty. Graded 7-10.	5%
Tutorials	Assigned by TA, based on quizzes on random assignment questions	5%
Test 1	Multiple choice	20%
Test 2	Multiple choice, concentrates on material since test 2	20%
Final	Multiple choice, on entire term	50%

If you miss more than two 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. At least 40% of the marks on the tests and final exam will be from the known-in-advance pool: (assignments, pop quizzes, questions-of-the-evening) with small changes such as to the interest rate.

### Medical certificates not really believed:

Please do not take this course if you intend to be sick for term tests or final. Few medical certificates in this course are accepted and even fewer of them are believed. Should you miss a term test, you are required by faculty regulation to submit, within one week, appropriate documentation to the course instructor or the Departmental office: SS6018. Print on the documentation your name, student #, the course number and the date. 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. 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. You will wish to monitor the Blackboard portal.

### GOOD LUCK

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