

**ACT 370H1S 2011, Financial Principles for Actuarial Science II**  
(Feb 17, 2011 version: please monitor updates at [www.utstat.utoronto.ca/sharp](http://www.utstat.utoronto.ca/sharp))

<b>Lecture Section</b>	L0101/A&S and L2001/ASE	
<i>Lecture times, location</i>	W 11-1	UT St George-MP203
<i>Instructor</i>	Dr Keith Sharp FSA FCIA CFA <a href="mailto:sharp@utstat.utoronto.ca">sharp@utstat.utoronto.ca</a>	UT St George-SS6007
<i>Keith Sharp's office hours Jan -Mar 2011 (OK to come to hours at any campus)</i>	T 11:00-12:00 (Incl. Feb 22) R 3:00-4:00(Incl Feb24 Excl Feb17) F 12:30-2:00	UT St George-SS6007 UT St George-SS6007 UTSC – S-506F
<i>Obligatory tutorials</i> Ms Yuxiang Chong <a href="mailto:chong@utstat.utoronto.edu">chong@utstat.utoronto.edu</a>	M 11-12	MP203
<i>TA office hours (for all students) in SS2133 Stat Aid Centre</i>	Will be arranged before tests and final.	
<b>Approximate Coverage ACT370H1S</b>	<b>Lecture</b>	
Options	January 10, 2011	McDonald Ch. 09
Options	January 12	McDonald Ch. 09
Binomial option pricing I	January 19	McDonald Ch. 10
Binomial option pricing I	January 26	McDonald Ch. 10
TERM TEST 1	February 2, 11:10 am – 12:00 pm	
Binomial option pricing II	February 2, 12:10 pm – 1:00 pm	McDonald Ch. 11
Binomial option pricing II	February 9	McDonald Ch. 11
Binomial option pricing II	February 16	McDonald Ch. 11
Reading Week UTSG/UTSC 2011	February 21-25	
Black-Scholes Formula	March 2	McDonald Ch. 12
TERM TEST 2 (Concentrates on material covered since Term Test 1)	March 9, 11:10 pm – 12:00 pm	
Market-making and delta hedging	March 9, 12:10 pm – 1:00 pm	McDonald Ch. 13
Market-making and delta hedging	March 16	McDonald Ch. 13
Exotic Options I	March 23	McDonald Ch. 14
Exotic Options I	March 30	McDonald Ch. 14
Additional topics	April 6	
FINAL EXAM	Exam period April 12-29	

**Calculator**

A non-programmable calculator is needed at each lecture, tutorial, test and exam. It is expected that any calculator with  $\times$  key will be adequate. Those who have a Texas Instruments BA II PLUS calculator will probably wish to use it: it 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). U of T Bookstore (at the magazines and stationery cashier) may have it.

## ACT 370H1S 2011S (Continued)

### Required Texts

From UT Bookstore: *Derivatives Markets* (Second Edition) by McDonald R.L. Chapters 9-14

### Participation lasers:

Please leave your participation laser in the box/bag at the end of every lecture.

### Course Objective:

This course is designed to help prepare you for the Society of Actuaries MFE exam (same texts, [www.soa.org](http://www.soa.org), follow “education” and “ASA requirements”) and the exams will copy the SoA format. It is also valuable for the CFA exams. 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 posted fully on the web

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 term tests will be from the known-in-advance pool of assignment questions with small changes such as to the interest rate.

### Marking Scheme:

Lecture: pop quizzes	Pop quizzes in many random lectures. Material is usually new that day, so discussion with other students is OK, but not copying. Worst two disregarded, so can miss two without penalty. Graded 7-10.	5%
Tutorials: assignment	Assignment must be done but is not graded. Assignment random check test in each tutorial on one question from assignment due that day. No help from other students allowed. 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 2	20%
Final	Multiple choice, on entire term	50%

**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, in this course, 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 “head cold” or “upset stomach” 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. 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*’; for A&S students this Declaration is a necessary but not sufficient requirement for absences in this course.

**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 it’s your responsibility to ensure that the portal “knows” an email address for you which you monitor frequently.

### GOOD LUCK