

ACT 370H1S W2012, Financial Principles for Actuarial Science II
(Feb 15, 2012 version: please monitor updates at www.utstat.utoronto.ca/sharp)

Lecture Section	L0101/A&S and L2001/ASE	
<i>Lecture times, location (Obligatory, manuscript not posted on web)</i>	M 11-12 (First Jan 9, Keith Sharp) W 11-1 (Keith Sharp)	SS2102 SS2102
<i>Instructor</i>	Dr Keith Sharp FSA FCIA CFA sharp@utstat.utoronto.ca	SS6007
<i>Keith Sharp's office hours Jan -Mar 2012</i>	T 11:00-12:00 R 3:00-4:00	SS6007 SS6007
<i>Obligatory tutorials</i> Ms Yuxiang Chong chong@utstat.utoronto.ca	M 11-12 (First Jan 9 by Keith Sharp; Jan 16-Apr 3 by Yuxiang)	SS2102
<i>TA office hours (for all students) in SS1091Stat Aid Centre</i>	Will be arranged before tests and final.	
Approximate Coverage ACT370H1S	Lecture	
Options	January 9, 2012	McDonald Ch. 09
Options	January 11	McDonald Ch. 09
Binomial option pricing I	January 18	McDonald Ch. 10
Binomial option pricing I	January 25	McDonald Ch. 10
Binomial option pricing II	February 1	McDonald Ch. 11
TERM TEST 1 (Note Feb 8, to avoid Feb 1)	February 8, 11:10 am – 12:00 pm	
Binomial option pricing II	February 8, 12:10 pm-1:00 pm	McDonald Ch. 11
Binomial option pricing II	February 15	McDonald Ch. 11
Reading Week UTSG	February 20-24, 2012	
Black-Scholes Formula	February 29	McDonald Ch. 12
TERM TEST 2 (Concentrates on material covered since Term Test 1)	March 7, 11:10 pm – 12:00 pm	SS2102 AND SS2118
Market-making and delta hedging	March 7, 12:10 pm – 1:00 pm	McDonald Ch. 13
Market-making and delta hedging	March 14	McDonald Ch. 13
Exotic Options I	March 21	McDonald Ch. 14
Exotic Options I	March 28	McDonald Ch. 14
Additional topics	April 4	
FINAL EXAM	Exam period April 12-29	

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. The HP12C is acceptable for this course and for CFA exams, is the traditional favourite of CFAs, but is not allowed on SoA exams.

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.

ACT 370H1S (Continued)

Required Texts

Derivatives Markets (Second Edition) by McDonald R.L. Chapters 9-14

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

Course Objective:

This course is designed to help prepare you for the Society of Actuaries MFE exam (same texts, 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) or *Globe and Mail Report on Business*. This course relates closely to "real world" situations.

Lectures Lecture and tutorial attendance is obligatory.

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.

Exams and Professional Conduct:

As for many professional exams, care will be taken to ensure the privacy of your answers by use of assigned seating and by the provision of several versions of tests and final, with different question orders and with dummy questions to make Scantrons more private. Anyone considering cheating should be aware that the Canadian Institute of Actuaries, under pressure from the provincial and federal governments, monitors the honesty and possible corruptibility of those it admits as actuaries. As a FCIA 'fellow' I am required by the Canadian Institute to enforce its strict rules.

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%

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 (but not final) will be from the known-in-advance pool of assignment questions with small changes such as to the interest rate.

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 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 essential that 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 "respiratory tract infection" or "injured foot" or similar will be rejected, as will certificates from chiropractors and 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. Note that no excuses, medical or otherwise, are accepted by the Society of Actuaries or CFA Institute if a professional exam is missed.

GOOD LUCK