

**ACT 370HIS W2015, Financial Principles for Actuarial Science II**  
(Jan 5, 2015 version )

<b>Lecture Section</b>	L0101/A&S and L2001/ASE	
<b>Lecture times</b>	M11 W 11-1	SS2102 SS2117
<b>Instructor</b>	Xuancheng (Bill) Hung xuancheng.huang@mail.utoronto.ca	
<b>Office hours Jan -Mar 2013</b>	M 2:00-4:00	SS6025
<b>TA</b> Iain Page Qin, Zhen		
<b>TA office hours (for all students) in SS1091 Stat Aid Centre</b>	Will be arranged before tests and final.	
<b>Approximate Coverage ACT370HIS</b>	<b>Lecture week</b>	
Arbitrage and Forward Contracts	January 5, 2013	McDonald Ch. 02/Ch. 05
Forwards/Options	January 12	McDonald Ch. 09
Put-Call Parity/Binomial Model	January 19	McDonald Ch. 10
Replicating Portfolio/Risk-Neutral Probability	January 26	McDonald Ch. 10
Multi-Period Binomial Model/Futures	February 2	McDonald Ch. 11
Risk-Neutral Return	February 9	
TERM TEST 1	February 11, 11:10 pm-1:00 pm	SS2117
Reading Week UTSG	February 16-20, 2013	
Binomial Trees with Dividends/Continuous Model for Stocks	February 23	McDonald Ch. 12
Black-Scholes Model/Brownian Motion	March 2	McDonald Ch. 12
Black-Scholes and Delta Hedging	March 9	McDonald Ch. 13
Black-Scholes Greeks	March 16	McDonald Ch. 13
TERM TEST II	March 18	SS2117
Market Making	March 23	McDonald Ch. 13
Exotic Options	March 30	McDonald Ch. 14
FINAL EXAM	A&S 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  $3.803 = (1 - (1+i)^{-1})/i$  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](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 – 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.

**ACT 370H1S (Continued)**

**Texts**

*Derivatives Markets* (Second Edition, not Third) by McDonald R.L. Chapters 9-14.

**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. 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.

**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: quizzes	Quizzes in lectures. Only best 5 counted.	0%
Test 1		30%
Test 2		30%
Final		40%

**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**