UNIVERSITY OF TORONTO
DEPARTMENT OF STATISTICAL SCIENCES

ACT370 H1 S – Financial Principles for Actuarial Science II
Course Outline – Winter 2014

Class Time & Location (L0101 and L2001): Mon, 11:10 am - 12 noon SS 2102
and Wed, 11:10 am – 1:00 pm SS 2117

Optional Tutorial: Tue, 12:10 – 1:00 pm SS2117

Instructor:	**J.G. Pitt**
Office Location:	**SS 6017**
Office Telephone:	**416-978-3490**
Email:	**greg.pitt@utoronto.ca**
Office Hours:	**Monday 2:05-3:00 pm, SS 6017**
	Wednesday 2:05-3:00 pm, SS 6017
TAs:	**Zhen Qin, Jane Li, Mirza Ahmed**

Official Course Description

Mathematical theory of financial derivatives, discrete and continuous option pricing models, hedging strategies and exotic option valuation.
Prerequisite: ACT240H1 (minimum grade C); ACT245H1 (minimum grade C); ACT247H1 (minimum grade C); (STA257H1,STA261H1); MAT237Y1
Exclusion: MGT438H1

Course Objectives

The successful student will learn how to perform basic options calculations and apply them to a wide variety of realistic financial situations. The course should also be helpful in preparing for professional actuarial examinations.

Main Text: (strongly recommended)
McDonald: *Derivatives Markets*, 2nd ed., Pearson/Addison-Wesley, 2006

Supplementary Text: (not required)
Hull: *Options, Futures, and Other Derivatives*, 8th ed., Prentice Hall, 2012

Determination of Grades

assignments (2)	5% each	Feb 26, Mar 12
tests (2)	13% and 19%	Feb 10 & Mar 03, GB 404 and GB405
term test	24%	Mar 19, EX 310 and EX 320
final exam	34%	April (tba)
TOTAL	100%	

2014 March 09: Last day to drop courses with S section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a 0/zero is assigned for incomplete work), and calculated into the GPA.

Requirements and Criteria
Two assignments will be collected. You may consult with your fellow students, but each student must submit individual answers and

Problem sets, consisting of questions assigned from the book as well as supplementary questions, will be posted from time to time. These questions are for practice and discussion and not for handing in and grading.

The tests will take place during class hours on February 10, March 03, and March 19 in rooms reserved for these tests. They may include any material covered up to the end of the previous class, unless stated otherwise in class.

The final exam may emphasize material not on the tests, but will still include questions from earlier material in the course.

For the tests, students will be permitted to use a non-programmable, non-plotting calculator, from a list based on SOA and CFA guidelines. If there is any doubt about the permissibility of your particular calculator, please consult in advance.

Students must bring their U of T student ID to all tests and exams.

Conduct of Classes
Ordinary classroom etiquette is expected of all of the students. This includes arriving on time, turning off cell phones and similar devices, and respect for fellow students.

Leaving the classroom while a lecture is in progress is disruptive and should be avoided. If you feel that you will need to leave class before it ends, please sit close to the rear door and alert the instructor to your situation.

The class time will be used for lectures and discussion, based mostly on the material in the textbook. However, the instructor may assign additional reading and/or exercises to supplement the book.

Class participation is strongly encouraged: asking questions, comments that relate this course to others that you are taking, pointing out mistakes on the chalkboard, etc.

The course website will be the centre for communication from the instructor to the students. The students are urged to complete the recommended problem sets. Solutions to some of these problems may be posted on the course web-site.

Procedures and Rules

Email: The instructor and the TAs may be contacted by email at any time. In general, the TAs should be contacted regarding subject matter, and the instructor regarding administrative matters. Note that if message traffic becomes excessive, the course email policy may be revised at any time during the term.

Missed Tests: In the event a student misses a test exam due to illness or domestic situation, the student must contact the Statistics departmental office immediately, and submit a medical certificate indicating type of illness and date of illness (or other applicable documentation for domestic situations) to the instructor. This should be done within 48 hours of the test date, if possible.

If a student misses a test for legitimate reasons, the missing points will be earned shifting the weight to the next test or exam.

Tests: The printed tests may contain a superset of questions, from which your specific questions will be determined on the basis of you student number. Multiple versions of the test may be used.

How to present your work: Show your work (i.e., document your thought processes). Some wrong answers may be awarded partial credit, but not unless you show your work. **Careless rounding and similar sloppiness will result in deductions.**

Marking issues: The TAs and the instructor are well aware of the importance of grades to most students, and great care will be taken in the marking of tests and exams. In the unlikely event that you feel a question has been mis-marked, or the marks have been added up incorrectly, you can submit your test back to the instructor with a note explaining what you believe requires further examination. This must be done within one week of the test being returned to the class.

Cancellation policy: In the event of inclement weather, instructor illness, or similar circumstances resulting in class cancellation, any test will be postponed for one week, and any assignment due date will be postponed until the next class. Minor adjustments to the overall course schedule might be necessary, and these will be posted.

Formal rules are in place regarding the rescheduling of final exams, and these will be followed if necessary.

Accessibility: Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability or health consideration that may require accommodations, please feel free to approach me and/or the Accessibility Services Office as soon as possible. The Accessibility Services staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. The sooner you let them and me know your needs, the quicker we can assist you in achieving your learning goals in this course.

For more information, please refer to http://www.accessibility.utoronto.ca/

Academic Misconduct: Students should note that copying, plagiarizing, or other forms of academic misconduct will not be tolerated. Any student who is detected engaging in such activities will be subject to academic discipline ranging from a mark of zero on the test or examination to dismissal from the university. Any student abetting or otherwise assisting in such misconduct may also be subject to academic penalties.

Because of crowding in the classroom, multiple versions of the tests may be administered. The differences between versions will be slight and should not affect the difficulty of particular problems.