FINA 4320: DERIVATIVE SECURITY MARKETS
The markets for futures, options, and other derivative securities. The mechanics of trading, regulation, pricing, hedging, and risk management using derivatives.

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Fall 2007:
Terry College of Business
University of Georgia
Daily, 12:30 – 1:45, Caldwell 305.

Instructor: Ryan McKeon
Office: G10 Brooks Hall
Phone: (706) 542-7175
E-mail: rmckeon@uga.edu
Course Web Site: webct.uga.edu
Office Hours:

For e-mails regarding queries on course material or requests for meetings please use my uga.edu e-mail address. I check this more frequently than WEBCT e-mail.

However, you should make a habit of checking WEBCT regularly as I will use the e-mail facility there to send general instructions and comments to the class.

Course Objective:
This course is an introduction to derivative security markets including call and put options, futures and forward contracts, and swaps. Topics include, but are not restricted to, the economic role of derivatives, valuation of derivatives, derivative trading strategies and the management of corporate risk with derivatives. The aim of the course is for students to end up comfortable with the use and valuation of a variety of derivative products.

Recommended Texts:

The Chance book will serve as the foundation for the course and the content of this book will be considered eligible for testing on class test and exams. The Hull book is more detailed and contains material considered outside the scope of the course. However, it is an excellent text and I highly recommend it for students who wish to maximize their knowledge of derivatives.

A variety of relevant books can be found on the 5th floor of the main library, for example in section HG6024.
Novels/Recreational Reading:

Some websites of relevance:
http://www.cboe.com/
http://www.cbot.com/
http://www.isda.org/

Prerequisites: FINA 4310 (Survey of Investments) and FINA 3000 (Financial Management).
A basic familiarity with spreadsheets such as Excel is assumed.

Other Items:
You will need a capable financial or scientific calculator.

Absences: I do not keep track of attendance during the semester, but frequent absences will hurt your chances of good scores on tests and the exam. Furthermore, 10% of the final grade will be based on attendance/compliance (as outlined below) and frequent absences from class may hurt your score in this component. My office hours should be used for questions related to problems you are working from the book, or questions which have arisen as you reviewed your class notes or the book. Students who use office hours to ask questions related to material which has already been discussed or answered in class will have points deducted from their attendance/compliance score. Questions relating to issues which are clearly addressed in the syllabus will also result in deductions from this score. I am happy to assist students, but please ensure that you first consult the syllabus and your notes when questions arise.

Reading assignments:
Articles will be posted to WEBCT for reading from current periodicals or journals. These will provide material for the exam/quizzes. These readings may not be specifically addressed in class, although questions or discussion are welcome if desired.

Project:
One project is assigned for the course. The due date for this project is midnight of Thursday, December 6th. The project will involve an investment game where each student will have a mock-portfolio to manage. The trading will be web-based. Details will follow. Note that there is a fee from the trading game firm. Each student should prepare a written report on their trading activities including examples of the trades he/she traded, the reasons for implementing these trades and the
final outcome. Grades will be based on the clarity of the report and not on the results achieved during the trading game (students may find that losing a lot of “money” on the game is very educational! :)

Exam/Tests: Tests and the final Exams will be closed book but I will provide certain complex equations for reference on the exam. Exams and tests will only be administered at the assigned times, and a missed exam or test will carry a grade of zero unless explicitly excused by a physician or the Dean of students. Truly exceptional circumstances should be discussed with me prior to the exam.

Although students who attend class regularly, pay attention and ask good questions may be able to identify sections of work which are of greater or lesser relative importance than others, officially the content for test and exams is anything written in the Chance textbook, any readings posted on WEBCT, and anything discussed during class time.

Class tests: Three in-class tests will be given during the semester. These tests are scheduled for 20 September, 18 October, 20 November.

Assignments: Two assignments will be given during the course. Assignments are an opportunity for you to explore certain areas in greater detail than covered in class. Details will follow. The first assignment, related to options, is due on October 31st. The second assignment, related to futures, swaps and other derivatives, is due on December 6th.

Final Examination: The final examination will be on Thursday 13th December from 12:00 to 3:00 pm.

***The final exam is a compulsory component of the final grade and must be written by all students regardless of your performance during the semester. If any circumstances arise which would interfere with your writing the exam on Dec 13th you should contact me immediately to resolve the situation.

Grade Determination: Final grade assignments will depend upon your overall performance and will be determined as objectively as possible based on the following weights:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighting</th>
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<tbody>
<tr>
<td>Class Tests</td>
<td>15% weighting on each of your two best scores of the three</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Assignment 1</td>
<td>10%</td>
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<tr>
<td>Assignment 2</td>
<td>10%</td>
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<tr>
<td>Stocktrack Project</td>
<td>10%</td>
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<tr>
<td>Attendance/Compliance</td>
<td>10%</td>
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</tbody>
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Your final grade will be determined solely on your scores in the above components. Regrettably, no points can be awarded for effort or amount of time spent studying.
The following will be used as a guideline for final grades:

- 92.0% - 100%  A
- 90.0% - 91.9%  A-
- 88.0% - 89.9%  B+
- 82.0% – 87.9%  B
- 80.0% - 81.9%  B-
- 78.0% - 79.9%  C+
- 72.0% - 77.9%  C
- 70.0% – 71.9%  C-
- 60.0% - 69.9%  D
- 0.0% – 59.9%  F

**Honor code:**
All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. While I strongly encourage discussion with classmates, all work for grades should be completed individually.

**Course Outline:**
(The relevant chapter in the Hull and Chance books are provided in parentheses. The Powerpoint notes which accompany the chapters in the Hull book can be downloaded from John Hull’s website at http://www.rotman.utoronto.ca/~hull/)

**August:**
- 16\(^{th}\): Introduction/Overview (Hull 1, Chance 1)
- 21\(^{st}\): Structure of Options Markets and Futures markets (Hull 2 and 8, Chance 2 and 8)
- 23\(^{rd}\): Structure of Options Markets and Futures markets (Hull 2 and 8, Chance 2 and 8)
- 28\(^{th}\): Principles of Option Pricing (Hull 9, Chance 3)
- 30\(^{th}\): Principles of Option Pricing (Hull 9, Chance 3)

**September:**
- 4\(^{th}\): Option Types, Strategies & Applications (Hull 10, Chance 6 and 7)
- 6\(^{th}\): Option Types, Strategies & Applications (Hull 10, Chance 6 and 7)
- 11\(^{th}\): Binomial Option Pricing Model (Hull 11, Chance 4)
- 13\(^{th}\): Binomial Option Pricing Model (Hull 11, Chance 4)
- 18\(^{th}\): Stock price dynamics and Black-Scholes Model (Hull 12 and 13, Chance 5)
- 20\(^{th}\): TEST 1
- 25\(^{th}\): Black-Scholes Model (Hull 13, Chance 5)
- 27\(^{th}\): Option “Greeks” (Hull 15, Chance 5)
October:
2nd: Option “Greeks” (Hull 15, Chance 5)
4th: Volatility smile, Volatility estimation (Hull 19, Chance 5)
9th: Futures hedging (Hull 3, Chance 10)
11th: Futures hedging (Hull 3, Chance 10)
16th: Forward and Futures pricing (Hull 5, Chance 9)
18th: TEST 2
23rd: Forward and Futures pricing (Hull 5, Chance 9)
30th: Swaps (Hull 7, Chance 12)

November:
1st: Swaps (Hull 7, Chance 12)
6th: Credit risk (Hull 20, Chance 15)
8th: Credit Derivatives (Hull 21)
13th: Credit Derivatives (Hull 21)
15th: Financial Risk Management (Hull 18, Chance 16)
20th: TEST 3
27th: Introduction to Real Options (Hull 31, Chance 2)
29th: Miscellaneous: CDO’s, ASCOT’s, Weather derivatives (Chance 14), Warrants (Hull 23), Overview of Derivative Settlements and Documentation

December:
6th: Wrap-up/Review

13th: FINAL EXAM 12:00 – 3:00 pm.

I have read the syllabus and agree to abide by all relevant course and university policies.
I have taken note of all test, exam and assignment dates and agree to meet all relevant deadlines set out in the syllabus.

Print name: ____________________ Signature: __________________ Date: ______