Syllabus, Eco 27500, Spring 2010
Options and Futures
Monday & Wednesday 11 – 12:15 NAC 4/108

Course Description

This course is designed to teach you the economics of the valuation of options, futures, and related financial instruments. After a terrible global economic and financial crisis, spread by the financial derivatives that we'll be studying, this is a terrific time to take this course on Options & Futures. You'll be learning the necessary skills to understand current events. Given the timing, the course must cover not only what financial derivatives are supposed to do but also what they actually were used for. Students need to understand that these financial tools can be used for both good and bad; they can mitigate or heighten risk; they can help firms survive difficult times or they can ruin established institutions. In previous times of economic and financial crisis, there have been other financial instruments that were blamed, whether REITs or junk bonds or computer-driven trading. Each innovation has now become an established part of the financial toolbox.

Textboook

This course will use the textbook by John C Hull, *Options, Futures, and Other Derivatives*, 7th Edition, Prentice Hall. If you have an earlier edition, you are responsible for ensuring the concordance to the most recent edition. You may wish to get the accompanying study guide, but it is not necessary.

Professor

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Course Requirements/Prerequisites

This course will assume that you've taken (and remember!) the prerequisites including Calculus (can find a derivative), Statistics (go back and review mean, variance/standard error, and pdf/cdf), Corporate Finance and Investments (time value of money).

Educational Outcomes

Students will be able to apply mathematically rigorous analysis to the pricing of options and futures; evaluate the Black-Scholes-Merton theories of option pricing as well as the "Greeks" against empirical findings within finance and economics and analyze the costs and benefits of these risk-mitigation securities.

Grading

Course grades are determined by three factors: your scores on the final and the midterm, and your scores on the homework assignments. The final and midterm each have a 35% weight and homework gets 30%. There is no "bullshit" factor of effort or any other unobservable will-o-wisps – the weightings sum to 100. Your grade is determined entirely on observed performance.

You have the option of forgoing the homework assignments and having your grade determined only by exams. This is unwise. You must submit the online form to me early in the semester.

Grades will be posted on the class internet page, so that you can check your progress and determine what grade you can expect to receive. In this public grade posting, you will be identified only by the last 4 digits of your ID number (if you wish to choose some other 4-digit identifier, talk with me).

Course Material

Homework and basic course documents will be on the class page, publicly accessible from my web page (http://www.ccny.cuny.edu/social_science/kfoster/). Readings and some other material will be available on the Blackboard course page (login required). I will periodically send emails to the class via Blackboard so you must keep your CCNY email updated.

Weekly Topics:
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Week	Date	Topics	Chapter(s) in Hull
1	Feb 1, 3	Introduction	1, 2
2	Feb 8, 10	Interest Rates	3, 4
	Feb 15	No class	
3	Feb 17	Future & Forward Prices; More Rates	5, 6, 7
	Feb 22, 24	Basics of Options	8, 9
4	Mar 1, 3	Trading Strategies	10
5	Mar 8, 10	Binomial Trees	11
6	Mar 15, 17		
7	Mar 22, 24	Review; *Exam on 24th*	*Ch 1-11*
	Mar 29, 31, Apr 5	No class	
8	Apr 7	Statistics and Matlab	additional reading
9	Apr 12, 14	Wiener Processes & Itô's Lemma	12
10	Apr 19, 21	Black-Scholes-Merton Formula	13
11	Apr 26, 28	more on B-S-M	additional reading
12	May 3, 5	The Greeks	17
13	May 10, 12	Value at Risk (VaR)	20
14	May 17	Credit Risk & Credit Derivatives	22, 23
	sometime May 19-25	*Final Exam*	*comprehensive*

Chapters refer to John C Hull, *Options, Futures, and Other Derivatives*, 7th Edition, Prentice Hall.

Deviations from the schedule will be announced in class.

The exam dates are given above. You must take the exams at the scheduled times. No excuses are acceptable.

Academic Integrity

The CCNY Faculty Senate has recommended that every course syllabus include this notice:
CUNY Policy on Academic Integrity
As stated in the CUNY Policy on Academic Integrity: 'Plagiarism is the act of presenting another person's ideas, research or writings as your own. The following are some examples of plagiarism:

- 'Copying another person's actual words without the use of quotation marks and footnotes attributing the words to their source;
- 'Presenting another person's ideas or theories in your own words without acknowledging the source;
- 'Using information that is not common knowledge without acknowledging the source;
- 'Failing to acknowledge collaborators on homework and laboratory assignments.
- 'Internet plagiarism includes submitting downloaded term papers or parts of term papers, paraphrasing or copying information from the internet without citing the source, and "cutting & pasting" from various sources without proper attribution.'
- A student who plagiarizes may incur academic and disciplinary penalties, including failing grades, suspensions, and expulsion.
- A complete copy of the CUNY Policy on Academic Integrity may be downloaded from the College's home page.