Derivative Securities  
FNCE 4040  
Spring 2007

Instructor: Nathalie Moyen  
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Office Hours: Mondays 12:30-1:30pm and Wednesdays 11:30-1:30pm, or by appointment  
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Course Material  

Course Outline
1. Introduction (Hull chap 1)  
2. Futures and Forward Markets:  
   2.1. Institutions (Hull chap 2)  
   2.2. Pricing (Hull chap 5)  
   2.3. Hedging Strategies (Hull chap 3)  
3. Swaps (Hull chap 7)  
4. Options Markets:  
   4.1. Institutions (Hull chap 8)  
   4.2. Basic Properties (Hull chap 9)  
   4.3. Trading Strategies (Hull chap 10)  
   4.4. Binomial Trees (Hull chap 11)  
   4.5. Black-Scholes (Hull chap 12)  
   4.6. Applications:  
      4.6.1. Options on Stock Indices (Hull chap 13)  
      4.6.2. Options on Currencies (Hull chap 13)  
      4.6.3. Options on Futures (Hull chap 14)  
   4.7. Hedging Strategies (Hull chap 15)  
   4.8. Volatility Smiles (Hull chap 17)  
   4.9. Value at Risk (Hull chap 18)

Course Objective  
The objective of the course is to introduce you to futures, swaps, and options markets. More specifically, you will acquire analytical tools to understand derivative markets, gain some knowledge of its institutions, and sharpen your skills in thinking about finance problems. At the conclusion of the course, you should be able to describe and price basic futures, swaps, and options.

Strategies for Achieving the Course Objective  
Attend classes. Download the slides available on my webpage. Complete your class notes with the textbook. Practice problem-solving with the Q&As provided on my webpage. Work in groups. Ask clarifying questions in a timely manner.
Prerequisites
The course is based on the assumption that you have taken FNCE 3010 and FNCE 3020. It also requires a working knowledge of algebra, calculus, and statistics, only because these instruments enable us to study derivative securities with the most clarity.

Evaluation
The evaluation consists of three mid-term exams, a final exam, a trading group project, and class participation including attendance to guest speakers’ presentation. The mid-term exams will be held on February 14, March 14, and April 18, while the final exam will be held on Thursday May 10 from 10:30am to 1pm.

Each exam will be graded on a total of 150 points and only the best two mid-term exams will count towards your final grade. No make-up exam will be given, except with documented excuses consistent with University guidelines. The trading group project will be graded on a total of 100 points. Class participation will count for a total of 50 points. Final letter grades will be awarded based on your total score out of 600 possible points. No letter grades will be assigned for individual exams. The final distribution of grades will be curved such that the mean letter grade of the course is between B and B+.

In case you are not satisfied with your score on an exam, you will need to provide a written explanation on why you feel you deserve more points. Explanations should be precise and should pertain to the content of your exam only. Explanations like “I deserve more points” or “My answer on this question is better than Xyz’s” are not acceptable. A reevaluation request for a particular question will entail a reevaluation of the entire exam. As a result, your revised score may go up, stay the same, or move down relative to your initial score.

Academic Integrity
The University’s student-run Honor Code became effective in spring semester 2002 in the Leeds School of Business. All students of the University are responsible for knowing and adhering to the academic integrity policy. Violations of the policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/.

Disability Services
If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me as soon as possible after class or at my office. For academic accommodations, students should have contacted Disability Services at 303-492-8671 or www.colorado.edu/disabilityservices which review and provide documentation necessary for any accommodation.

Religious Observances
Campus policy regarding religious observances requires that every effort is made to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. You should inform me at least two weeks in advance
of any conflict. See policy details at: http://www.colorado.edu/policies/fac_relig.html

Classroom Etiquette
Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. See policies at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

Discrimination and Harassment
The University policy on Discrimination and Harassment, the University policy on Sexual Harassment and the University policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh

Cell Phones and Laptops
Cell phones should be turned off or put in silent mode for every class. Laptops may be used to take notes, but should not be used during class for other purposes. Violation of this policy will result in class participation deductions.