COURSE DESCRIPTION

This course is designed to help students develop an understanding of derivative securities and the use of derivatives and problem solving skills within the framework of the materials (learning goal: problem solving skills that include identifying the elements, executing the algorithm correctly and summarizing the solution). The emphasis of this course is on the concept of arbitrage and arbitrage-based pricing method for derivative securities. Besides the technical aspects, we will also present the economic functions of derivatives contracts in risk management and unintended consequences amid the recent financial crisis. The course also stresses on improving the oral and written communication skills in the context of the derivatives through problems and projects (learning goal: oral and written communication skills).

COURSE MATERIALS


FINAL GRADE ASSIGNMENT

Grading:

Class participation includes your attendance in class and your contributions to the class discussions. Questions and comments by students and the instructor are important. I expect you to attend class ON TIME, be prepared, and be willing to participate. Cell phones, pagers, IPODs, Blackberrys or any other electronic recording device will NOT be permitted in the classroom and use of such electronics devices may result in deduction of the participation point. I will also randomly call students to answer questions and/or to come forward and solve the certain problems. If you need to leave the class early, please let me know of the reason in advance. Finally, please avoid talking during class hours (except to the instructor).

There will be periodic problem sets assigned (NO LATE ASSIGNMENTS ACCEPTED). These problem sets will help you better understand the materials and prepare for the exams. For each problem set, I will hand out solutions a week after and go over problems in class to help you understand them better. This will be counted as 10% of your grade.
There will be two closed book multiple-choice quizzes, one before Exam I early in the semester and another after Exam I but before Exam II. The quizzes (5% total) are designed to help you grasp the basic concepts and better prepare for the exams.

There will be three exams throughout the entire semester. All exams will be closed-book. You will be allowed to bring a one letter-size formula sheet and your calculator. The coverage on each exam will be from the lectures, textbook, and assigned problems. Make-up exam will be offered only because of illness (doctor’s note required) or because of your participation at a scheduled university activity (coach’s note required) and the instructor is informed within 24 hours of the scheduled exam time. If a student must Miss Exam I or Exam II for any other reason not mentioned above, the corresponding weights will be carried over to the final exam. For example, if you missed Exam I, your final exam will account for 50% of your course grade.

Any student caught cheating on an exam will receive a zero (0) on that exam and will be subject to the penalties described in the university policies and guidelines regarding academic integrity. You are required to bring your student identification card to all examinations. You are NOT permitted to wear a hat to any exam. No cell phones or other electronics are allowed in the testing room. No extra credit work will be given to make up a low grade in any exam or project assignment after they are graded. Use the bathroom prior to the exam start; bathroom breaks, if essential, will be escorted. At any time throughout the exam, only one student is allowed to use the bathroom.

Your final grade is not subject to negotiation. If you feel I have made an error, submit your written argument to me within one week of receiving your final grade. Clarify the precise error I made and provide all due supporting documentation. If I have made an error, I will gladly correct it. But I will adjust grades only if I have made an error. I cannot and will not adjust grades based on consequences, such as hurt pride, lost scholarships, lost tuition reimbursement, lost job opportunities, or dismissals. Do not ask me to do so. It is dishonest to attempt to influence faculty in an effort to obtain a grade that you did not earn, and it will not work.

- Class participation: 10%
- Homework: 10%
- Quizzes: 5%
- Exam I (week 5 in class): 25%
- Exam II (week 10 in class): 25%
- Final exam (TBA): 25%

Options and Futures (29:390:386)

Course Schedule

Course outline:

1. Course Overview and Introduction
   - Chapter 1
2. **Futures and Options**
   - Chapters 2, 3, 9
3. **Interest Rates**
   - Chapter 4
4. **Forwards and Swaps**
   - Chapters 5, 7
5. **Properties of Stock Options**
   - Chapter 10
6. **Options Trading Strategies**
   - Chapter 11
7. **Option Pricing Methods**
   - Chapters 12, 13, 14
8. **Options on Stock Indices, Currencies, and Futures**
   - Chapters 15, 16
9. **The Greeks**
   - Chapter 17
10. **Volatility Smile**
    - Chapter 18
11. **Financial Crisis and Derivatives Mishaps**
    - Chapter 8, 25

The instructor may adjust the outline based on the progress through the semester.

**Classroom Conduct and Course Policies:**

- Cell phones, pagers, IPODs, Blackberrys or any other electronic recording device will not be permitted in the classroom. Cell phones, pagers and all other personal electronic devices must be turned off and stowed during class. Interruption from the use of these items will run the risk of the items being confiscated or in the case of
repeated offense, the dismissal of the student from the class.

• You are expected to come to class prepared, having read the assigned material and prepared to be involved in class discussions. If any material is unclear, please ask questions.

• You are expected to actively participate in class discussions throughout the semester, to answer questions directed to the class, and to ask questions to clarify ideas. In addition, you are also expected to make supplemental notes for yourself during class lectures and to review your notes after class.

• You are responsible for all material presented in class. If you miss any material because of absence or tardiness, you should ask another student for notes. The instructors notes will not be available.

• Students should conduct themselves in a professional manner demonstrating respect for the instructor and fellow classmates at all times. You are expected to use common courtesy in the classroom. If you are late arriving to class, please make every effort to minimize disruption to other students. Reading the paper, working on material from another class, tweeting, facebooking, or watching youtube will not be permitted. If you do need to leave early, please inform me at the beginning of the class and leave the class discretely.

• Laptop usage in class: A laptop or Ipad may be used in class to record notes with my permission. However, students are only allowed to use these devices for coursework. Using a laptop to surf the web (i.e., viewing social media websites like Facebook, YouTube, etc) is very distracting to other students in the class and is strictly prohibited.
• Examinations are the property of the Department. Anyone removing an examination from the classroom is strictly prohibited.

**Academic Integrity:**

I do NOT tolerate cheating. Students are responsible for understanding the Academic Integrity policy. http://academicintegrity.rutgers.edu/files/documents/AI_Policy_2013.pdf. I will strongly enforce this Policy and pursue all violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment. I will screen all written assignments through SafeAssign or Turnitin, plagiarism detection services that compare the work against a large database of past work. Don’t let cheating destroy your hard-earned opportunity to learn. See business.rutgers.edu/ai for more details.

**Support Services**