FIN 622, Section 001
DERIVATIVE SECURITIES
Autumn Quarter 2014, Mondays 6:00-9:00 PM, Corboy 522

Catalog Description

This course is an introduction to options, futures and forwards as derivative securities. After an overview of these securities, a detailed examination of the methods of valuing options will be presented. Binomial trees and a discussion of the Black-Scholes-Merton option pricing model will be emphasized, followed by insights into option contracts as useful risk management instruments. A brief introduction to stochastic calculus is also given. Stock, index, debt, commodity, foreign currency and futures options are reviewed, and option strategies are analyzed as managerial tools in financial decision-making.

Course Overview

Skills developed in this course include analytical and decision-making, creative thinking and communication. Throughout the course the notion of risk both as potential loss and opportunity for gain and its management will be highlighted. Ethical and social dimensions of risk management and the use and abuse of derivative securities will be emphasized to help students become responsible financial managers. The recent credit crisis and its origin in subprime mortgages will be reviewed. Students are encouraged to form teams and work jointly on five sets of homework problems and to also develop trading strategies. The course integrates functional areas in finance, accounting, economics, business ethics and quantitative methods.
Course Objectives and Learning Outcomes

Specifically this course has six learning goals/outcomes:

1. Develop quantitative and financial skills in the area of derivative instruments especially as it applies to options, futures, forwards and swaps.
2. Develop the student’s critical thinking skills in the area of risk management that is both complex and changing.
3. Develop the student’s ability to integrate knowledge from finance, economics and quantitative methods.
4. Develop the student’s written communications skills by having students do written homework assignments.
5. Provide the student with quantitative tools to understand risk management models.
6. Emphasize during the course that derivatives pricing, hedging and speculation require both quantitative reasoning and ethical judgment.

Required Materials

ONE TEXTBOOK REQUIRED:


ISBN: 978-0-13-610322-6 This is an older edition that costs significantly less than the latest version.

OPTIONAL PAPERS:


HOMEWORK AND FINAL TEST:

Homework and the final examination are each worth 100 points. There will be five homework assignments during the quarter, each worth 20 points. Optional simulated trading is encouraged for extra credit of 5 points. Homework and trading can be done individually or in teams (no more than 5 persons per team). Details will be presented in class.
GRADING SCALE:
Students will earn their course grades according to the following scale:

- 190 - 200 = A
- 185 - 189 = A-
- 180 - 184 = B+
- 170 - 179 = B
- 160 – 169 = B-
- 140 - 159 = C+

BONUS POINTS

5 BONUS POINTS MAY BE EARNED FOR 7 WEEKLY TRADING DECISIONS: Details will be presented in class. Ideas about what options to buy or sell can be found in the weekly magazine called Barron’s.

HOMEWORK ASSIGNMENTS:

There will be 5 homework assignments. The due dates will be announced in class and posted on Blackboard. Each assignment is worth 20 points. Both the quality of answers and the organization of the homework will be graded. These assignments are tentative to be confirmed in class.

Since students may use different editions or versions of this classic book, a Homework Assignment List containing all the problems below is available on line at Sakai.

HW #1
Ch 1. 1.2, 1.3, 1.6, 1.11, 1.13, 1.14, 1.19, 1.28
Ch 2. 2.1, 2.4, 2.9, 2.10, 2.17
Ch 3. 3.1, 3.2, 3.6, 3.14

HW #2
Ch 10. 10.1, 10.2, 10.3, 10.11, 10.12, 10.16,
Ch 11. 11.2, 11.3, 11.4, 11.6, 11.10, 11.11, 11.12, 11.14, 11.21

HW #3
Ch 12. 12.1, 12.3, 12.5, 12.6

Please also answer the following as part of HW #3:

- What is an Ito process? Collect 40 daily closing prices of your favorite stock and check if these prices follow an Ito process.

- Outline the derivation of the Black-Scholes-Merton option pricing formula.

HW #4

Ch 15. 15.1, 15.2, 15.5, 15.6, 15.7, 15.10, 15.11
Ch 16. 16.1, 16.2, 16.3, 16.5, 16.7

HW #5

Ch 17. 17.2, 17.3, 17.4, 17.5, 17.7
Ch 20. 20.4

Class by Class/Week by Week Course Outline

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<td>Stock Options and Futures Contracts</td>
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<td>September 8</td>
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<td>October 13</td>
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BOOKS ON TRADING AND THE FINANCIAL CRISIS


**Quinlan School of Business Policies:**

**Attendance**

Class attendance and participation are fundamental components of learning, so punctual attendance at all classes, for the full class meeting period, is expected of Quinlan students.

**Make-Up Examinations**

Loyola University academic policy provides that tests or examinations may be given during the semester or summer sessions as often as deemed advisable by the instructor. Because Quinlan faculty believes examinations represent a critical component of student learning, required examinations should be taken during the regularly scheduled class period. **Make-up examinations are discouraged.** Exceptions may be granted only by the faculty member or department chair, and only for unavoidable circumstances (illness verified by a signed physician’s note, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, or religious observance). A make-up final examination may be scheduled only with the permission of the appropriate Quinlan Assistant or Associate Dean.

If a make-up examination must be given, it is the responsibility of the faculty member to prepare, schedule, and proctor the exam. The only regular exception is for a student athlete, who may use the testing services of the Athletics Department to complete a make-up examination. For a student with a documented special testing need, please consult University policy concerning use of the testing center in Sullivan Center at Lake Shore Campus.
Academic Integrity

All members of the Quinlan School shall refrain from academic dishonesty and misconduct in all forms, including plagiarism, cheating, misrepresentation, fabrication, and falsehood…Plagiarism or cheating on the part of the student in individual or group academic work or in examination behavior will result minimally in the instructor assigning the grade of “F” for the assignment or examination. In addition, all instances of academic dishonesty must be reported to the chairperson of the department involved.

For further information about expectations for academic integrity and sanctions for violations, consult the complete Quinlan School of Business Honor Code and Statement of Academic Integrity on the Quinlan website: http://www.luc.edu/media/lucedu/quinlanschoolofbusiness/pdfs/Honor-Code-Quinlan-July2012.pdf

Final Exam Month/Day

Nov. 3, 2014 Corboy 522 6-9 P.M.

Please note: This class may occasionally deviate from the course outline above. The instructor reserves the right to make changes as needed to the course syllabus.