COURSE OBJECTIVES: The purpose of the Derivative Securities and Markets course is to provide the student with a robust understanding of the nature and types of derivative securities, the markets in which they trade, how they are priced, and most importantly, how they should and should not be used. Upon successful completion of this course, the student will possess a working knowledge of issues regarding valuations and applications of derivative securities, as well as some case discussions of how derivative securities were managed (or mismanaged) in a corporate strategy context. The student will learn arbitrage-based valuation techniques as they apply to the pricing of options, forward contracts, futures, swap contracts, caps, floors, and other derivatives. Students will be exposed to some of the fundamental risk management tools used by practicing investment professionals as they learn how to hedge and immunize exposure to stock market risk, commodity price risk, interest rate risk, and foreign exchange rate risk.

PREREQUISITES: FIN B 301.


GRADING POLICY

- 4 best of 5 quizzes 15% each = 60%
- Final Exam 25%
- Case presentation 10%
- Class attendance and participation 5%

Note: Undergraduate grading scale, effective Fall 2005, is on the +/- basis as shown below:

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<tr>
<th>GRADE</th>
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<th>INTERPRETATION</th>
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MAKE UP QUIZZES: In case you have documented medical reasons for missing class, you may take a make up quiz within one week of the quiz you missed. Failing to do so will result in a score of zero (0) being recorded for your grade for the missed quiz. This scheme is non-negotiable, especially because it
actually does not adversely affect your final grade so long as you have not missed more than 1 of the five quizzes. There will be NO end of semester make up quizzes.

**CASE PRESENTATION FORMAT:** The case studies are ALL based on the ‘Business Snapshots’ that are found in the text chapters. Students will form four groups for purposes of case presentation within the first week of classes. Each group will then sign up to present a case on a first-come first-serve basis. On the presentation days, the assigned team will come prepared to make a presentation to the class about their case. The presentation is typically a 30 minute discussion by more than one member of the team, usually using the PowerPoint presentation format with text/graphs/tables and other visual aid as is deemed appropriate by the team. Teams are strongly encouraged to do outside research on the case, in addition to reading the case material given by the instructor, to enhance the quality of their presentation. The team will be expected to answer questions at the end of the presentation, for a total of 15 minutes. Points will be awarded for the presentation on the following:

(a) Content – Clear narrative of events and explanation of what the case illustrates  
(b) Style – delivery technique  
(c) Use of available technology (in the classroom setting)  
(d) Originality (and outside research related to the case)  
(e) Fielding questions  
(f) Involvement of ALL members in some aspect of the class presentation  
(g) Peer evaluation of each member of a team by all other members

Each student who is NOT a member of the presenting team will come to class prepared to discuss the case. Preparation includes a thorough reading of the material, and asking questions that are insightful. Individual student questions that raise the level of case discussion or show a clear understanding of the material will be noted, and considered for class participation points.

**PARTICIPATION/ATTENDANCE GRADE:** The class participation/attendance grade (5%) will be determined as follows:

i. Contribution to classroom discussion and analysis (including cases).  
ii. In-class participation in problem solving tasks.  
iii. Attendance recorded on random days and.

**GRADE INQUIRIES:** Any and all questions regarding one’s current standing vis-à-vis grades, or what one needs to obtain a certain grade, should be asked via electronic mail. Please write FIN365 on the subject heading of all emails that you send if you want your email inquiry to be responded to.

**CHEATING:** Anyone participating in the unethical utilization or exchange of information in connection with a quiz/test or case assignment will receive a failing grade in this course and will have a memorandum explaining his/her involvement in the incident placed in his/her permanent record in the Dean's office. See the University Catalog for policy regarding cheating.

**CALCULATORS:** A pocket calculator is required, as it will be difficult to solve the assigned problems or quizzes without one. Your calculator should be capable of solving for (1) present value, (2) future value, (3) annuity payments, (4) interest rate, (5) the number of time periods, (6) net present value, (7) the internal rate of return, (8) $e^x$, and (9) $y^x$. Many calculators have these capabilities (I personally use the Texas Instruments BA II Plus). If you are unsure whether your calculator meets these criteria, see your instructor. Calculators may not be shared during a test. You are responsible for bringing your own calculator and extra batteries to each quiz.

**BUSINESS ETIQUETTE:** Naturally, class discussion pertaining to the subject matter is encouraged. However, you will observe the rules that prevail in the real world of business meetings and conferences.
An occasional quiet comment to one’s neighbor is acceptable, but any activity that distracts the class’s attention from the subject at hand is unacceptable. Such activity includes bringing a beeper or cellular phone into the classroom, private discussion during lecture, rude behavior, etc. I reserve the right to deduct penalty points from a student’s grade if the student repeatedly distracts the class.

OFFICE HOURS: If you have any questions about something that was said in class, about the current homework assignment, or about an upcoming quiz, or if you just need help in understanding the course material, see me during my office hours or make an appointment. Please make an attempt to do the homework first because you will learn more if you spend time thinking about the assignment before asking for help. Where you have difficulty with parts of the assignment, just mark the sections that you do not understand and then see me. If you do not understand the material in one lecture, it will likely cause you to miss other closely related concepts later. So please take steps to redress these issues as and when they arise. Feel free to ask me questions via e-mail at any time. However, do not write lengthy emails or send huge attachments. Too many such student queries have previously sent my SLU mail inbox over quota (on multiple occasions), which kept other students from communicating timely with me. Do not wait until the day before a quiz to seek help. It may be too late by then.

STUDENTS WITH DISABILITIES: If you feel you are entitled to special accommodations because of a disability, please see me within the first week of the semester.

ANNOUNCEMENTS: You are responsible for knowing what goes on in class, which may include material not covered in the book, modifications to the syllabus, and announcements concerning quizzes. If you miss class, please contact a classmate who attended class and get the notes/announcements you missed.

COURSE OUTLINE

1. Course Overview
   - Introduction to syllabus, course requirements, dispute resolution, grading scheme
   - Case study

2. Introduction to derivative securities
   - History of derivatives markets, types of securities, types of traders (Hull – Ch 1)
   - Use of derivatives – risk management, financial engineering, income generation (Handout to accompany Ch 1)

3. Forwards and Futures Markets
   - Mechanics of the market, trading and settlement procedures, brokers’ mark-to-market procedures, delivery and accounting regulations (Hull – Ch 2)
   - Actual ambience of the open outcry exchange (Handout to accompany Ch 2)

Quiz 1

4. Case 1 – The Barings Bank Disaster (Discussion only)
5. Pricing Forwards and Futures
   - Sort selling and regulations (Class discussions/notes)
   - Assets with known income, known yield, pricing index contracts (Hull – Ch 5)
Quiz 2

6. **Case 2** – Long Term Capital Management’s big loss (Discussion only)
7. Interest rate futures
   - Types of interest rates, rate quotes, measuring rates, zero rates, bootstrapping (Hull – Ch 4)
   - Interest rate futures (Hull – Ch 6)

Quiz 3

8. Options
   - History of options, mechanics of options markets, option positions, underlying assets, trading commissions, margins (Hull – Ch 8)
   - Properties of Stock Options (Hull Ch 9)
   - Why options are a good idea (Handout to accompany Ch 8 and 9)

9. **Case 3** - Metallgesellschaft: Hedging Gone Awry (Discussion only)

Quiz 4

10. Trading strategies using options
    - Single option, option plus stock, multiple options, payoff diagrams (Hull – Ch 10)
    - Non-standard spread (Class discussion/notes)

11. **Case 4** – Orange County Bankruptcy (Discussion only)
12. Pricing options
    - Put call parity (Hull – Ch 9)
    - Black Scholes Model (Hull Ch – 12)
    - Binomial Model (Discussion Format only) (Hull Ch 11)

Quiz 5

13. Hedging strategies using forwards, futures and options
    - Forwards and futures hedges (Hull Ch – 3)
    - Hedging with Options (Handout to accompany Ch 3)

Case Presentations

14. Swaps
    - Mechanics of Interest Rate Swaps (Hull Ch 8)
    - Swap rates (Handout)
    - Currency swaps (Handout)

15. Index and Currency Options (Hull Ch 13)

FINAL EXAM – Semi Comprehensive