Financial Economics and Investment Behavior
ECO 4378

Time: Tuesday and Thursday 2:00pm-3:20 pm
Place: Umphrey Lee 242
Instructor: Saltuk Ozerturk
Office: 301X Umphrey Lee
Phone: 768 3344
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Course Objectives This course has two basic objectives:

- To provide an introduction to the analytics of financial derivatives like options, forwards, futures and swaps.
- To apply the derivatives framework into portfolio risk management, dealing with interest rate risk, exchange rate risk and market risk.

Office Hours: Tuesday and Thursday 10:30 am-12:30 pm, or by appointment.

Recommended Textbooks (All Optional) Below are a couple of textbooks you may find useful.

- For a nice introduction to Derivative Securities “Derivatives: An Introduction” by Robert Strong
- Most of my lecture notes are based on the MBA textbook ‘Options, Futures and Other Derivatives’ by Hull

Required Lecture Notes: The entire set of lecture notes for Eco 4378 can be found and printed from my website at http://faculty.smu.edu/ozerturk/teaching.html

Attendance Policy
Attendance is absolutely mandatory and will count for 5% of your grade. Your grade from attendance will be determined on a pro rata basis. If you miss half of the classes, you will lose half of the credit available for attendance.
**Grading:** The course grade will be based on attendance, 2 quizzes (open notes) and 2 midterm exams (closed notes). I will actually give 3 midterm exams and count the best 2 grades out of 3 midterms. The weights are as follows:

- **Attendance:** 5%.
- **2 Quizzes** (5% total)
- **2 Midterm Exams (best 2 out of 3)** 30% each, total 60%
- **Final (30%)**

**Make-up Exam Policy:** There is absolutely no make-up for midterm exams or quizzes. There are 3 midterms and I count the best 2 grades out of 3 midterms. Therefore, one midterm is extra. In case, for example, you miss Midterm 1 or 2, you can always make that up by taking Midterm 3.

**Disability Accommodations:** Students needing academic accommodations for a disability must first be registered with Disability Accommodations & Success Strategies (DASS) to verify the disability and to establish eligibility for accommodations. Students may call 214-768-1470 or visit [http://www.smu.edu/alec/dass.asp](http://www.smu.edu/alec/dass.asp) to begin the process. Once registered, students should then schedule an appointment with me to make appropriate arrangements.

**Religious Observance:** Religiously observant students wishing to be absent on holidays that require missing class should notify me in writing at the beginning of the semester, and should discuss with me, in advance, acceptable ways of making up any work missed because of the absence.

**Excused Absences for University Extracurricular Activities:** Students participating in an officially sanctioned, scheduled University extracurricular activity will be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with me prior to any missed scheduled examination or other missed assignment for making up the work.

**Learning Outcomes**

- Students will be able to evaluate the risk and reward prospects of trading positions based on derivative securities.
- Students will gain familiarity with the basic risk management techniques that make use of derivative securities.
- Students will be able to understand the basic determinants of option prices.
- Students will gain familiarity with the key concepts of market risk, exchange rate risk and interest rate risk.
Students will be able to demonstrate how securitization and credit default swaps can be used to manage credit risk.

**Tentative Course Outline**

- Basic Concepts of Arbitrage, Hedging and Speculation
- Forward Contracts
- Call and Put Options
- Put-Call Parity, No Arbitrage Rules for Option Prices
- Quiz 1 (September 30th, Tuesday),
- Midterm 1 October 7th Tuesday
- Basic Trading Strategies Using Options
- Option Valuation: The Binomial Model
- Hedging Market Risk with Stock Index Options
- Interest Rate Swaps and Currency Swaps
- Quiz 2 (October 30th Tuesday)
- Midterm 2 (November 6th Tuesday)
- Swap Design: Comparative Advantage Argument
- Duration Matching with Swaps
- Portfolio Delta and Option Portfolio Risk Management
- Midterm 3 (December 2nd Tuesday)
- Further “No Arbitrage” Pricing Relationships with Options
- FINAL (December 17th Wednesday)