Financial Economics and Investment Behavior  
ECO 4378

Lectures: Monday, Tuesday, Wednesday, Thursday and Friday at 4:00-5:50 pm.  
Classroom Lee 303

Professor: Saltuk Ozerturk

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Webpage: http://faculty.smu.edu/ozerturk/

Office Hours: Monday and Wednesday 12:00-2:00 pm or by appointment

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: Monday, Wednesday and Friday 12:00 – 2:00 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: Grading will be based on attendance, 2 quizzes, 2 midterm exams and a Final Exam with the following weights:

- Attendance: 5%.
- 2 Quiz Exams (Take Home): 5% total.
- 2 Midterm Exams: 30% each (Closed Notes).
- 1 Final: 30% (Closed Notes)

Make-up Exam Policy: There is no make-up for quizzes. For the midterms no make up exams will be offered except in cases of documented medical or family emergency.

Disability Accommodations: In accordance with the Americans with Disabilities Act, if you need academic accommodations for a disability, you must first contact Ms. Rebecca Marin, Coordinator, Services for Students with disabilities (214-768 54 63) to verify the disability and establish eligibility for accommodations. Then, you should schedule an appointment with me for the necessary 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 each semester, and should discuss with, in advance, acceptable ways of making up any work missed.

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. It is the responsibility of the students to notify me in advance and make arrangements.

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.
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
- Basic Trading Strategies Using Options

**Quiz 1 June 9th Tuesday**
**Midterm 1 June 11 Thursday (tentative)**

- Option Valuation: One Step Binomial Model
- Hedging Stock Market Risk with Index Options
- Interest Rate Swaps
- Currency Swaps
- Swap Design: Comparative Advantage Argument

**Quiz 2 (June 19 Friday)**
**Midterm 2--- June 23 Tuesday (tentative)**

- Concept of Duration and Duration Matching using Swaps
- Some Exotic Options: As you like it option, Shout Option, Binary Options
- Portfolio Delta and Delta Risk Management

**FINAL (Last Day of Class- June 30th Tuesday)**