Financial Economics and Investment Behavior  
ECO 4378

Time: Tuesday and Thursday 5:00 pm-6:20 pm  
Place: Umphrey Lee 241  
Instructor: Saltuk Ozerturk  
Office: 301X Umphrey Lee  
Phone: 768 3344  
E-Mail: ozerturk@mail.smu.edu

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 3:00 pm-5:00 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** The course grade will be based on attendance, 2 quiz exams (open notes), 2 midterm exams (closed notes) and a final. The weights are as follows:

- **Attendance:** 5%
- **2 Quiz Exams (open notes)** 5% total
- **2 Midterm Exams (closed notes)** 30% each, total 60%
- **Final 30%**

**Make-up Exam Policy** There is no make-up for quiz exams. For midterm exams, a make-up exam can be arranged only in case of a documented medical emergency. All make up exams will be offered on the same day (**April 26th Tuesday**). If you miss a midterm, contact me with a documented medical emergency and I will sign you up for the make-up exam on **April 26th**. No other dates will be offered for the make-up exam. Only the students who contact me in advance and sign up for the make-up can take the make-up exam. Make your travel plans accordingly. There is no make up for the make-up.

**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 be able to use the basic risk management techniques that rely on derivative securities.

• Students will be able to solve real life problems related with 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 February 23rd Tuesday

• Midterm 1 March 1st Tuesday

• Basic Trading Strategies Using Options

• Option Valuation: The Binomial Model

• Hedging Market Risk with Stock Index Options

• Interest Rate Swaps and Currency Swaps

• Swap Design: Comparative Advantage Argument

• Quiz 2 March 29th Tuesday

• Midterm 2 April 5th Tuesday

• Duration Matching with Swaps

• Portfolio Delta and Option Portfolio Risk Management

• Further “No Arbitrage” Pricing Relationships with Options

**FINAL (May 10th Tuesday 3:00-6:00 pm)**