

ASSUMPTION UNIVERSITY
MARTIN DE TOURS SCHOOL OF MANAGEMENT AND ECONOMICS
DEPARTMENT OF FINANCE AND BANKING
COURSE OUTLINE 1/2011

Course Title : **FIN 4831 (BF4722) Derivatives Securities**
Pre-requisite : **FIN 3711 (BF3704) Principles and Policies of Investment**
Lecturer : Dr. Wiyada Nittayagasetwat
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MSM&E's Vision and Mission

Vision:

To be the leading international business school in the ASEAN region providing high quality business education to enable graduates to make invaluable contributions to organizations and society.

Mission:

To shape our students into independent-minded graduates who are well-versed in business, able to communicate effectively, tech savvy, innovative, and ethical to successfully face global challenges.

Course Description :

The course aims to introduce the students with an understanding of derivatives securities including financial futures, options and swaps. The focus is on the institutional aspects of derivative markets, pricing models, and hedging techniques.

Course Objectives :

Last two decades have spawned increasing importance of financial derivative instruments like futures and forward in the world of finance and investment. So, it became imperative that all finance professionals should have the understanding of how the derivative markets work, how derivatives can be used, and what determines the prices of different derivative securities. This course is designed to provide the working knowledge and better equip the students to become competent financial professionals.

After finishing this course, the students must be able to:-

1. Define the futures and options markets and outline the different ways in which they can be used.
2. Describe the mechanics of how futures and forward contracts work.
3. Calculate the forward and futures prices in a variety of different situations using pure arbitrage arguments.
4. Explain how futures contracts can be used for hedging.
5. Deal with the special problems associated with interest-rate futures contracts.
6. State the mechanics of various types of swaps and also determine the valuation of swaps.
7. Describe the mechanics of how option markets work.
8. Develop some relationships that must hold in options markets if there are to be no arbitrage opportunities.
9. Outline a number of different trading strategies involving options.
10. Calculate the price of stock options using one-and two-step binomial trees and using the Black-Scholes analysis.

Required Text:

Hull, J.C. (2009), Options, Futures and Other Derivatives, 7th edition, Prentice Hall

Additional References:

Chance, D.M. (2008), An Introduction to Derivatives and Risk Management, 7th edition, Thomson Southwestern.

Course Schedule

Week	Topic
1	Chapter 1: Introduction
2	Chapter 2: Mechanics of Futures Markets
Assignment 1: Mechanics of Futures Market in Thailand	
3	Chapter 3: Hedging Strategies using Futures
4	Chapter 4: Interest Rate
5	Chapter 5: Determination of Forward and Futures Prices
Assignment 2: Select one Futures contract and Calculate the Futures Prices for the past 30 days	
6	Chapter 6: Interest rate futures
7	Chapter 7: Swaps
Midterm Examination: July 20, 2011 (9.00 – 11.00), Suvarnabhumi Campus	
8	Chapter 8: Mechanics of Options Markets
Assignment 3: Search for Mechanics of Options Market in Thailand	
9-10	Chapter 9: Properties of Stock Options
Assignment 4: Select 1 option and test whether the option price violates the boundary or not	
11-12	Chapter 10: Trading Strategies Involving Options
Assignment 5: Calculate the expected return and volatility of underlying asset of the selected warrant	
13-14	Chapter 11: Binomial Trees
15	Chapter 13: The Black-Scholes-Merton Model
Assignment 6: Calculate the price of the selected option using Black-Scholes Model and compare with the actual price whether the B-S price is over- or under-valued.	
Final Examination: September 20, 2011 (13.00 – 16.00), Suvarnabhumi Campus	

Mark Allocation*: (* see also classroom policies)

Quizzes (every class)	10%
Assignment and Presentation	10%
Midterm Examination	40%
Final Examination	<u>40%</u>
Total	100%

Classroom Policies:

- **Students need to comply with AU Dress Code, Time Conflict Examination Regulations, Laws on Smoking Cigarette, and Restrictions on Foods and Drinks V10.1, June 2010.**
- **Attendance policies:**
 - 2 times of ten-minute late for class considered as 1 absence.
 - Make-up classes are not allowed.
 - 80% attendance is strictly required regardless of any reason.
 - No checking attendance for other classmates. Violation of the policies will result in being automatically withdrawn from the class.
 - Attendance is counted since the first day of class regardless of any reason.
- **Manner in class:**
 - Behave in a polite manner
 - Pay respect to instructors and class participants
 - Turn off all communication devices
 - Do not leave and re-enter the classroom
 - Prohibited manners: Eating, drinking, chatting, talking on the phone, text-messaging, sleeping, reading other materials, doing other subjects' assignments/homework, walking in-out, etc.
 - Improper behavior will result in no attendance checked.
- **Dress code:**
 - Follow AU dress code
 - Improper dress code will result in no attendance checked.
- **Class assignments (Homework, reports, project, presentation, paper, etc.):**
 - No Plagiarism.
 - The students copying works from all sources will be penalized – “Zero” marks or “F” grade.
 - Hand in all class assignment on time, both soft copy and hard copy.
 - **Late submission will NOT be graded.**

- **Class participation:**
 - Be participative and attentive in class
 - The students are also required to comply with all classroom policies.
 - Violation of the classroom policies will result in “zero” or “negative” participation marks and/or no attendance checked.
- **Request for make-up quizzes (if applicable):**
 - The students requesting for the make-up quizzes need to submit their names with valid evidence (ABAC related issues only) to the respective lecturer within the specified dates.
 - Late submission will NOT be allowed to take the make-up quizzes.
- **Grade inquiry:**
 - The students can request for a review for their marks or grades.
 - The students need to submit petition to the respective Chairperson at D6 or MSM2 within 2 weeks after their marks or grades have been officially announced. Petition submitted after the specified period will NOT be considered.
 - **Reevaluation process:** The students' class assignments or exam answer scripts will be reevaluated by the internal committees assigned by the respective department. Please note that the students' marks may or may not be adjusted after the reevaluation process and it is considered as a “final consensus” between the students and the committees.

August 26: Last day to withdraw with “W”

(Withdrawing after this date, the students need a chairperson's approval.)