University of International Business and Economics

Australian Summer Sessions

FIN 320: Derivative Securities

Term: Dec 18, 2017- Jan 08, 2018

Instructor: Peipei Wang

Home Institution: Deakin University

Class Hours: Monday through Friday, 160 minutes each day (2,400 minutes in total)

Office Hours: To be determined

Teaching Assistant: TBD

Email: TBD

Discussion session: 3 hours each week

Credit: 4 units

Course Description:

Financial derivatives have becomes extremely popular over the past several decades, as they provide cheap and flexible way for market participants to tailor the amount of risk they choose to bear. This subject introduces three main categories of derivative securities, i.e., options, forwards/futures and swaps. The objective of this course is to provide students with the intuition and the necessary skills to value and apply these basic financial derivatives under different scenarios, i.e., risk management. Specific topics that will be covered include interest rate measurement, no-arbitrage

argument, and trading strategies involving options, hedging principles, Binomial trees and Black-Scholes-Merton model.

Course Goals

1. Develop and demonstrate knowledge of forwards, futures, options and their market.
2. Justify the mechanics of no arbitrage and apply to real world situations. Find fair value for financial instruments.
3. Apply financial derivatives, i.e., forwards, futures, options and swaps for arbitrage and hedge under different scenarios.
4. Develop and demonstrate effective written communication skills, including the ability to clearly explain graphs, data, statistics and algebra, in a manner appropriate for finance peers and academics.

Required Texts:

John C Hull. Fundamentals of Futures and Options Markets: Global Edition (8th edition).

Alternatives:

John C Hull. Options, Futures and Other Derivatives. (From most recent 9th edition to earlier edition e.g., 7th edition)

Attendance: Required

Grading Policy:

Your final grade for the course will be calculated in the following way:

Middle exam	50 %
Final exam	50 %

Grading Scale

Assignments and examinations will be graded according to the following grade scale:

A 80-100

B 70-79

C 60-69

D 50-59

F below 50

General Expectations:

1. **Pre-requisite**

Students should have a good knowledge of basic finance concepts, including risk, return arbitrage, efficient markets, and the time value of money. In addition, a course in basic statistics and probability theory would be useful. The course will involve a significant amount of numerical calculation.

2. **Reading**

This course is demanding in nature. I expect that you come prepared to each class. Your preparation should include reading the assigned material as well as preparing the solution for questions and case that will be discussed during a given session.

3. **Writing**

You should use your academic writing to share your own insight with your reader. You should write in language designed to communicate your ideas clearly and simply rather than to impress and bewilder. You should copy-edit all written assignments until they conform to the conventions of modern standard English to the best of your ability.

4. Discussion/Participation

Questions and Case discussions are an important part of this course. The discussions require your preparation as well as participation.

Course Schedule:

Reading assignments should be completed by class-time on the date at which they are listed. Make sure that you bring all readings to class.

Unit 1:

Monday, Dec 18: Introduction

Unit 2:

Tuesday, Dec 19: Interest rate measurement

Unit 3:

Wednesday, Dec 20: Mechanics of Futures Market

Unit 4:

Thursday, Dec 21: Hedging Strategies Using Futures (1)

Friday, Dec 22: Hedging Strategies Using Futures (2)

Unit 5:

Monday, Dec 25: Determination of forward and Future Prices (1)

Tuesday, Dec 26: Determination of forward and Future Prices (2) & Review for Middle Exam

Unit 6:

Wednesday, Dec 27: Comparative Advantage and Swaps Design

Thursday, Dec 28: Valuation of Swaps

Unit 7:

Friday, Dec 29: Mechanics of Options Markets

Unit 8:

Tuesday, Jan 2: Boundary of Stock Options

Wednesday, Jan 3: Properties of Stock Options

Unit 9:

Thursday, Jan 4: Trading Strategies Involving Options

Unit 10:

Friday, Jan 5: Binomial Trees

Unit 11:

Monday, Jan 8: Black-Sholes Merton Model