

DONGGUAN UNIVERSITY OF TECHNOLOGY

School of Economics and Management

Course Syllabus

Summer 2019

Course Information

Course Code	088560
Course Title	Financial Derivatives Markets
Instructor	Pengshi Li
Class	2016 Economics and Finance (Financial Management Industry-University International Program)
Course Category	☒ Compulsory ☐ Elective
Credit(s)	3
Total Hours	54
Hours Per Week	3 hours for week 1-18
Practical Hours	0
Lab Practice Hours	18
Classroom	R6305, GuanCheng Campus;
Time	Tuesday, 14:30-17:10;
Office Hour	Wednesday 12:00-14:00 @ 2303 Guancheng Campus; by appointment
Required Textbook	John C. Hull. (2012). Options, Futures, and Other Derivatives. 8th edition. Pearson. (Copy version, Tsinghua University Press, 2017)
Supplementary Materials	Salih N.Neftci (2018). <i>An Introduction to the Mathematics of Financial Derivatives</i> . 2th edition. Academic Press. ISBN-13: 978-0125153928.
Prerequisites	Microeconomics, Macroeconomics, Advanced Mathematics
Course website	N/A

Assessment and Grading

Your grade is composed by four parts. They are attendance (10%), Assignment (20%), midterm exam (20%), and final exam (50%).The detailed grading is as following:

	Standard	Notes
Attendance, 10%	100 points scale	If you are late or leave early, your grade will be taken 10 point each time. If you are absent for one class, the taken point will be 20 for each absentee.
Assignment 20%	100 points scale	assignment should hand in before the final exam.
Midterm exam, 20%	100 points scale	open-book exam.
Final exam, 50%	100 points scale	closed-book exam.

Course Description

This course covers forwards, futures, swaps, and options. By the end of the course, students will have good knowledge of how these products work, how they are used, how they are priced, and how financial institutions hedge their risks when they trade the products.

Course Objectives

- Understand the basic concept of derivatives.
- Understand the basic mechanism of derivatives markets.
- Understand the pricing model of the basic derivatives products.

Course Expectations

1. Attendance - Class attendance is expected of all students. Especially for the experimental sessions, no miss of any experiment is the bottom line. For other cases, please notify me or the class TA before the day of an anticipated absence. Failure to attend class regularly or frequent tardiness will mean automatic loss of your attendance mark.
2. Before/After Class - Students should expect to spend an adequate amount of time on reviewing the textbook, course handouts and finalizing the group homework before the due day. To keep up with the flow of the course, students

are strongly recommended to complete the relevant reading materials and to have the coming individual/group presentations/activities conscientiously prepared before the class.

3. Class Participation - Class participation is an essential part of the learning process. Students will be evaluated on the quality your individual/group performance, your team spirit and your contributions to the class/group activities by your peers or the lecturer correspondingly.

Course Schedule

Week/Date	Topic	Required Reading and Assignments
1/ 26 th Feb	Introduction	Chapter 1
2/ 5 th Mar	Hedging strategies using futures	Chapter 3
3/ 12 th Mar	Interest rate	Chapter 4
5/ 26 th Mar	Determination of forward and futures prices	Chapter 5
6/ 2 th Apr	Swaps	Chapter 7
7/ 9 th Apr	Mechanics of options markets	Chapter 9
8/ 16 th Apr	Properties of stock options	Chapter 10
9/ 23 rd Apr	Trading strategies involving options	Chapter 11
11/ 7 th May	Midterm exam	
12/14 th May	Binomial trees	Chapter 12
15/ 4 th Jun	The Black-Scholes-Merton Model	Chapter 14
18/ 25 th Jun	Futures options	Chapter 17
Total	36 hours	

Laboratorial Hours Schedule

Week/Date	Topic	Assignments
4/ 19 th Mar	Bond pricing	spreadsheet homework.
10/ 30 th May	Option strategies	spreadsheet homework.
13/ 21 st May	Binomial tress (I)	spreadsheet homework.

14/ 28 th May	Binomial tress (II)	spreadsheet homework.
16/ 11 th Jun	Black-Sholes-Merton pricing formula (I)	spreadsheet homework.
17/ 18 th Jun	Black-Sholes-Merton pricing formula (II)	spreadsheet homework.
Total	18 hours	

Date: 2019.2.28

Approved

Reviewed by

Bitao Shi

Signature

BITAO SHI

Director of

Department of International Business and Management