

Syllabus: FINA 222 Derivative Securities

Instructor: Professor NI, Sophie X.

Office Address: 2354; Telephone: 2358 5052

Office Hours: Thursday 1 – 2:30pm, or by appointment.

Email: sophieni@ust.hk

Website: <http://lmes2.ust.hk>

Class room: 2304

Teaching Assistant Du Qianqian

Email: dqqmm@ust.hk

Course Material:

The lecture notes are the official text for the course. They will be distributed each class and posted to the course website. I also strongly recommend that you get the following text book to serve as a reference:

- Fundamentals of Futures and Options Markets by John Hull, 6th edition, Prentice Hall, 2006.

Also, please purchase Nicholas Dunbar's little book INVENTING MONEY, which I recommend as a fun complement to the materials in the course.

Grade:

Group Assignment 20%, completed by group, each group has 4 - 6 members. Topic (Choose 1)

- a. What are the reasons of the recent financial crisis?
- b. What are or will be the effects of the recent financial crisis?

Remember there are no officially correct answers for above two questions. Each group should try best to explore the answer using internet, newspaper and imagination. On May 12, each group is required to do a 6-8 minute Power Point presentation . The presentation can be made by one or more than one members of the group. The grade is based on the presentation material and presentation skill.

Midterm, 30%, Final Exam, 50%

Class Manner

You are welcome to ask any questions during or after the class. You are also encouraged to answer class questions raised by me. Don't be afraid of being wrong. Remember, the courage of being wrong is the origin of creativity.

Also I would appreciate if you could attend class on time, turn off cell phone and not talk privately during the class.

Topics

The following table describes the topics I intend to cover during the term. Some topics may be added or expanded according to the interests of the class. The syllabus below shows the sections of each of text book which relate to the material covered in that lecture.

1	Introduction	Ch1
2	Forwards and Futures	Ch2
3	Forwards and Futures Prices	Ch5
4	Swaps	Ch7
5	No Arbitrage Bounds on Option Pricing	Ch9
6	No Arbitrage and State-price Density	
7	Dynamic Arbitrage and Binominal Model	CH11
8	Binominal Model Application	
9	The Black-Scholes-Merton Model	Ch12
10	Extension of Black Scholes Formula	
11	The Behavior of Volatility	Ch17
12	Managing Option Risk	Ch15
13	Credit Derivatives	Ch21