

**Instructor**

Professor Jie Gan (Ph.D. MIT)  
Office Address: 2385; Telephone: 2358 7665  
Office hours: open-door policy / by appointment  
Email: jgan@ust.hk

**Course Description**

This course provides practical working knowledge of various derivatives. It aims at “demystifying” fancy and often confusing derivatives products, including forwards and futures, options, and swaps. At the end of the course, the students will acquire an understanding of the how these derivatives are traded, what are the payoffs for the investors, and how to value them. Cases are used to provide students with experiences of applying these models and principles to complex problems in the real world. Popular instruments in the Hong Kong market (e.g., equity linked notes) will also be discussed.

**Prerequisites**

Basic knowledge of bonds, stocks, CAPM, market efficiency  
A little knowledge of calculus and statistics  
Some knowledge of Microsoft Excel

**Course Materials**

John C. Hull: *Options, Futures, & Other Derivatives*, Prentice Hall  
(Required, available at University Bookstore)  
Articles, cases, homework, etc.  
(Will be made available during classes)

**Course Work**

Class Participation: Necessary but not graded  
Exercises: Questions in the textbook, not graded,  
Cooperation encouraged.  
Two sets of homework: 40% of the course grade, complete individually  
Final Exam: 60% of the course grade

**Topics and Textbook Reading**

Topics	Textbook (7th Edition)
Introductions to derivatives	1.3-1.10
Forwards and futures	5.2-5.8
Swaps	7.1-7.9
Options contracts and restrictions to option prices	9.1-9.7; 8.1-8.11 (optional)
Options trading strategies and hedging	10.1-10.4
Models of stock prices	13.1-13.4
Binomial tree option-pricing models	11.1-11.2
The Black-Scholes option-pricing model	13.5 13.8-13.9
Hong Kong Applications	