

# **SS 4521G/FM 9521B - Advanced Financial Modelling**

**Outline of Lectures: 17–24 March 2014**

Midterm Exam 2 – Tuesday, 18 Mar 2014  
19:00-21:03HRS, VAC 100

**NO lecture on Tuesday in consideration of the evening midterm that day.**

For this week, we aim to cover the following theories/concepts:

1. Intro to Exotic derivatives
  - Packages
  - Non-standard American options
  - Forward start options
  - Compound options
  - Chooser options
  - Barrier options
  - Binary options
  - Lookback options
  - Shout options
  - Asian options
  - Options to exchange one asset for another
  - Other exotics may be added to this list and a copy of the slide presentation will be provided.
  
2. Models for stochastic interest rate process in the context of simulation
  
  
3. The Ho-Lee, Vasiček, Cox-Ross-Ingersoll Black-Karasinski, and Black-Derman-Toy interest rate models

4. Extension of Black-Scholes (if time permits)