## PhD course training course

# Advanced Asset Pricing and Interest-rate Models 20 lectures Richard C. Stapleton

## **Objectives**

### Lecture Topics:

- 1. Utility theory and stochastic dominance:
  - HL ch 2
- 2. Risk aversion and the pricing kernel:
  - PS, ch 2
- 3. Background risk and optimal demand for risky assets: EGS,
- 4. Option pricing: extensions to the Black-Scholes model: PS ch 4, C ch 18
- 5. Forward and futures prices of contingent claims: PS ch 6, part 2
- 6. Convexity and the pricing of interest-rate derivatives: H ch 21, 22
- 7. Term structure of interest rates and bond pricing: C ch 19
- 8. Interest-rate models: Spot- rate and Forward-rate models: H, ch 23, PS, ch 7

### Reading

Poon and Stapleton, Asset Pricing in Discrete Time (PS)

Cochrane, Asset Pricing (C)

Huang and Litzenberger, Foundations of Financial Economics, (HL)

Eeckhoudt, Gollier and Schlesinger, *Economic and Financial Decisions Under Risk*, Princeton UP, 2005 (EGS)

Hull, Options, Futures and Other Derivatives (H)