

**MAT1856S/ APM466S — Mathematical Theory of Finance - 2012**

**Location: SS 2127**

**Times: Wednesdays 9-12 pm**

*Instructor: Luis A. Seco* seco@math.utoronto.ca

- Fixed Income
  - Jan 11: Introduction to Fixed Income Products
  - Jan 18: Bond Pricing; yield rates. Bootstrapping
  - Jan 25: Forward curves **Note: this class will be rescheduled to another day**
- No-arbitrage pricing
  - Feb 1: One period models
  - Feb 8: Multi-period models: swing options. **Assignment 1 due**
  - Feb 15: Continuous time models:
- Feb 29. the Black-Scholes theory
- March 7: Introduction to credit risk
- March 14: MIDTERM TEST 1
  - Contents: Up to -including- the Black Scholes theory
- March 23: CreditMetrics and the Merton model
- March 28: MIDTERM TEST 2
  - Contents: Introduction to Credit Risk
- April 4 Introduction to portfolio theory and investing. Hedge funds. **Assignment 2 due**

Assignments: Two, valued equally.

Course evaluation: The final mark is a combination of assignment marks (25% each) and the midterm tests (25% each).

Office hours: By appointment.