ECO4050H Course Outline

Course Number:	**ECO4050H1S L0101 Jan 10 – April 30, 2011**
Department:	Economics
Program:	MFE
Title:	Topics in Financial Risk management (for MFE students)
Instructor:	Alan Yang
Contact Information:	alan.yang@algorithmics.com Tel: 416-217-4290
Course Website:	http://homes.chass.utoronto.ca/~xyang
When Required (UTORweblogin):	https://weblogin.utoronto.ca/

ECO4050H1S Topics in Financial Risk management

Course Description:

This course provides a comprehensive introduction to the real world application of Financial Risk Management modeling theory with an emphasis on the industry best-practice methodologies. The course covers major issues in, such as: Liquidity Risk, Value at Risk, Counter Party Credit Risk, Economic Capital, Regulatory Capital, Credit Value Adjustment, Scenario Generation, Stress Testing and Portfolio Credit Risk Management. The course also covers the motivation of Enterprise-wide Risk Management. As the course focuses on Financial Engineering approaches, Excel Visual Basic Application based assignments will help to illustrate the concepts. Potential candidates will be recommended to Algorithmics Inc. for 4 month's free training program.

Course Objectives:

The course is intended to introduce to students the main idea about how to implement financial risk management by means of financial engineering. After completing this course, students will be able to:

- Differentiate and describe major risks and associated risk factors in the financial market;
- Spec financial risk models and quantify financial risks based on real world financial engineering practices;
- Explain and debate on various issues in the financial risk management;

About Marks:

Assignment: 10%; Course Participation: 10%
Exam 1 + Exam 2 + Final (chose best 2: 40% each. For whatever reason if missing an exam, there will be no make-up exam.)

Course Prerequisite: ECO 2503H, F or permission from MFE course coordinator.
Time & Location: F 10 – 12(noon) in GE 100 of Max Gluskin House (Economics Department)
Office Hours: (W13:00-14:00, Location to be announced)

About Assignments:

- All assignments can be finished at home but should be finished before the deadline; Assignments can be finished in group, in which case only hand in one copy with the group member listed.
- Style of Assignments: there will be questions asking students to identify risk factors and quantify risks in a mock portfolio, using Visual Basic and financial engineering approaches learned in the class to quantify risks, discuss risk management strategy etc.

About Exams:

- There will be close book exams; there will also be taken home exam if exam involves using computer.
- Style of Exams: There will be questions asking for definitions of various concepts, risk calculation method (position risk, portfolio risk, diversification benefit, regulatory capital, etc), real world risk control issues, and debate on risk management issues, or using Visual Basic and financial engineering approaches learned in the class to quantify risks, discuss risk management strategy etc.

About Course Participation:

- Active in the participation of the BlackBoard forum.
- Active in the participation of the class discussion.

About Reference Books:

- In terms of risk management topics, reference books are not required. Relevant papers and course notes that cover each topic will be released before each classes starts. Please visit course website before the class.
- In terms of Visual Basic programming, a good reference book is: “Advanced Modelling in Finance using Excel and VBA”, by Mary Jackson and Mike Staunton