

ECO4050H Course Syllabus

Course Number: ECO4050H1S L0101 Jan – April, 2013
Department: Economics
Title: Topics in Financial Risk management
Instructor: Alan Yang
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UT Course Portal: <https://weblogin.utoronto.ca/>
(UTORweblogin)

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.

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 Exam (chose best 2 among the 3 exams: 40% each. Anyone who misses just one of the three exams will not be given a makeup.)

Time & Location: F 12 (noon) – 14 (Location: **to be announced**)

Office Hours & Tutorial: T 19:00-20:00 (Location: **to be announced**)

About Assignments:

- All assignments can be finished at home but should be finished before the deadline; some assignments must be finished independently, some assignments can be finished in group, in which case only hand in one copy with the group member listed. Please follow instruction.
- 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 three exams (Exam 1, Exam2 and Final Exam). Exams could be either taken home exams and can be finished in groups or closed book exam. Final Exam is close book exam. Marks of Exam 2 will not be posted before Final Exam date.
- 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:

- Contributing to the BlackBoard forum.
- Contributing to the class discussions (such as asking good questions, provide valuable comments and idea, suggestion towards making assignments and exams more value added, etc.)
- Attendance

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, good reference books are (15 copies are available in UT Book Store):
 - “Advanced Modelling in Finance using Excel and VBA”, by Mary Jackson and Mike Staunton
 - “Excel VBA Programming For Dummies”, 2nd Edition, by John Walkenbach

Articles and Other Materials:

- Academic journal articles are available in electronic form on *J-Store* at the U of T Library.
- Where materials are available over the Internet, I will provide the web links.