

## ECO2508H Course Syllabus

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| <b>Course Number:</b>                        | ECO2508H1S L0101 Jan – April, 2015   |
| <b>Department:</b>                           | Economics  |
| <b>Title:</b>                                | Applied Financial Risk Management  |
| <b>Instructor:</b>                           | Alan Yang  |
| <b>Contact Information:</b>                  | <a href="mailto:alan.xianyang@gmail.com">alan.xianyang@gmail.com</a> Tel: 416-478-5297               |
| <b>Course Notes Website:</b>                 | <a href="http://homes.chass.utoronto.ca/~xyang">http://homes.chass.utoronto.ca/~xyang</a>            |
| <b>UT Course Portal:</b>                     | <a href="https://portal.utoronto.ca">https://portal.utoronto.ca</a> (UTORweblogin password required) |
| <b>Lecture Times &amp; Location:</b>         | Tuesday 19:00-21:00 ( <b>WB219, Wallberg Building</b> )<br>(First class: Jan 6, 2015)                |
| <b>Office Hours/Tutorial &amp; Location:</b> | F 13:00 – 14:00 ( <b>WW126</b> )   |

### 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 use VBA functions to quantify financial risks based on real world financial engineering practices;
- Explain and debate on various issues in the financial risk management;

### Prerequisite:

MA, MFE and PH.D Economics Department are qualified to take this course. If you are a graduate student outside the economics department who would like to take one of these courses, please see link:

<http://www.economics.utoronto.ca/index.php/index/graduate/nonEconCourseAdd>

### About Marks:

B+ as long as you can finish Assignment and Project 1 + Project 2.

Require to show effort to achieve higher marks.

**About Assignments:**

- All the assignments will be posted on the ROSI Course Portal. It can be finished at home but should be finished independently and submit online before the deadline.
- 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 Projects:**

- Asking you to use VBA to build risk calculation model, to quantify risks, discuss risk management strategy and debate on risk management issues.

**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 (available in UT Book Store):
  - “Excel VBA Programming For Dummies”, 2nd Edition, by John Walkenbach
  - [Excel 2013 Power Programming with VBA](#), by [John Walkenbach](#), [John Wiley & Sons](#) © 2013 (1104 pages) [Citation](#), ISBN:9781118490396
  - “Mastering VBA for Microsoft Office 2013” by [Richard Mansfield](#) [Sybex](#) © 2013 (960 pages) [Citation](#) ISBN:9781118695128
  - “Advanced Modelling in Finance using Excel and VBA”, by Mary Jackson and Mike Staunton

**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.

**SGS Regulation for Exceptional Circumstances:****"7.2.3 Exceptional Circumstances Affecting Student Performance**

Students with health problems or other personal circumstances which may adversely affect their performance in, or their ability to complete coursework, examinations, or other departmental or graduate program assessments may request special consideration. Written requests, supported by a medical certificate or other appropriate evidence, must be submitted to the instructor or the Coordinator of Graduate Studies as soon as possible or no later than two business days following the deadline or date of assessment. If a medical certificate is submitted, it must confirm the student was adversely affected by health problems and must show the dates of illness and that the physician was consulted at the time of the illness. If a student is affected by health problems or other personal circumstances during an examination that affect the completion of the examination, the student must notify the instructor or invigilator immediately; that is, the student should not wait until the end of the examination. Such notification must be followed up with a written request for special consideration as above."

For more information, please refer to:

<http://www.sgs.utoronto.ca/calendar/Pages/Registration-and-Enrolment.aspx>