FINC 557/MGMT 571 Enterprise Risk Management
Fall 2014, Tuesdays 6-9 p.m.

Revised on: August 11, 2014

Catalog Description
Prerequisite: FINC 450
This course explores the emerging practice of "enterprise risk management" (ERM) or "integrated risk management"-a new managerial outlook on managing risk. Enterprise risk management considers all the risks faced by the firm and attempts to integrate these disparate risks into a single unified analytical framework. Traditionally, risk has been managed in the compartments of financial risk, operating risk, and credit risk. Rather than allowing risk to remain in such "silos," ERM insists that these must be brought together into one system of risk management.

Course Overview
This course provides a comprehensive introduction to concepts of risk and risk management. It does this through:
- Lectures
- Reading and discussion
- Case analyses
- Student risk analysis projects

Course Objectives and Learning Outcomes
Outcome: Upon completing this course, students will have a greater understanding of the nature of risks that affect the entire enterprise, and they will be able to analyze risk is a more systematic and rigorous manner.
Required Materials
All required materials appear on the course’s website on Sakai or can be downloaded from the internet via a link in this syllabus.

Quinlan School of Business Policies:
Attendance
See course grading policies and course plan.

Make-Up Examinations
None. See grading policies and course plan.

For a student with a documented special testing need, please consult University policy concerning use of the testing center in Sullivan Center at Lake Shore Campus.

Academic Integrity
All members of the Quinlan School shall refrain from academic dishonesty and misconduct in all forms, including plagiarism, cheating, misrepresentation, fabrication, and falsehood…Plagiarism or cheating on the part of the student in individual or group academic work or in examination behavior will result minimally in the instructor assigning the grade of “F” for the assignment or examination. In addition, all instances of academic dishonesty must be reported to the chairperson of the department involved.

For further information about expectations for academic integrity and sanctions for violations, consult the complete Quinlan School of Business Honor Code and Statement of Academic Integrity on the Quinlan website:


Instructor’s additional policy on academic dishonesty:
Any student determined to be cheating or plagiarizing will receive an F for the course and will be dismissed from the class. In group assignments, each member of the group is responsible for assuring that the group’s work is honest work. This implies an intimate familiarity with the group’s submission on the part of each member of the group.

Class by Class/Week by Week Course Outline
Note: This class may occasionally deviate from the course outline below. The instructor reserves the right to make changes as needed to the course syllabus. Please note that specific cases will be specified based on student choices.
Links:

**Assigned Readings:** On Sakai under Resources or a link is provided below.

**Recorded Lectures:** On Box.com at the link below. Note: These files are large, so please download them from a fast connection.

[https://app.box.com/s/y9a2vgy2agg52366n9pg](https://app.box.com/s/y9a2vgy2agg52366n9pg)

**Cases:** On the Professional Risk Managers’ Association International website, Prmia.org, at: [http://www.prmia.org/risk-resources/case-studies](http://www.prmia.org/risk-resources/case-studies)

The following is a list of cases we may discuss. All are available at Prmia.org:

- Case: Bankers’ Trust
- Case: Bankgesellschaft Berlin
- Case: Barings Bank
- Case: California Power
- Case: China Aviation Oil
- Case: Credit Lyonnais
- Case: Daiwa Bank
- Case: Fannie Mae
- Case: Long-Term Capital Management (LTCM)
- Case: Metallgesellschaft
- Case: National Australia Bank (NAB-FX)
- Case: Northern Rock
- Case: Orange County
- Case: Riggs Bank
- Case: Tasei Fire and Marine Insurance
- Case: US S&L Crisis
- Case: Washington Mutual (WAMU)
- Case: WorldCom

**Critical Due Dates:**

- Risk Analysis Prospectus Due: September 23, 2014
- Risk Analysis Presentation Due: October 20, 2014
- Case Presentation: Various, but PowerPoints are due at noon on the day of the presentation.
Course Schedule

Class 1: August 26: Risk—It’s Everywhere

Assigned Readings:
- Ferguson, Niall, "Complexity and Collapse"
- Economist, “Vulcan’s Twins”
- Gwin, Peter, “The Mystery of Risk”
- Blastland, Michael, and David Spiegelhalter, “Risk is Never a Strict Numbers Game”
- Taylor, Timothy, “The Value of a Statistical Life”
- Economist, “Intelligent Intelligence”
- Harford, Tim, “An Astonishing Record of Complete Failure”

Recorded Lectures:

A. Getting Started

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<thead>
<tr>
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<th>Content</th>
<th>Duration</th>
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<tbody>
<tr>
<td>0</td>
<td>Introduction to Section A. &quot;Getting Started&quot;</td>
<td>1:25</td>
</tr>
<tr>
<td>1</td>
<td>Uncertainty and Risk</td>
<td>12:30</td>
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<td>2</td>
<td>Review of the Normal Distribution</td>
<td>24:19</td>
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<tr>
<td>3</td>
<td>Skewness, Fat Tails, and Black Swans</td>
<td>25:33</td>
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<td>4</td>
<td>Risk Management and the Purpose of the Firm</td>
<td>15:45</td>
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Case:
- Continental Illinois
Class 2: September 2: Global Risks and Globalization

**Assigned Readings:**
- Noonan, Peggy, “The World the Great War Swept Away”
- Leonard, Mark, “Clashes with Russia Point to Globalization’s End”
- McTighe, Kristen, “The World’s Food Supply Depends on Morocco. Here’s Why”

**Recorded Lectures:**
- 5 The Four Basic Risk Management Strategies 10:51
- 6 The Major Types of Risk 20:02
- 7 Taxonomies of Risk 7:46
- 8 Enterprise Risk Management 25:03

**B. Foundations of Risk in Finance**
- 0 Introduction to Section B. "Foundations of Risk in Finance" 2:20
- 1 The Assumption of Perfect Markets 12:45

**Cases:**
- TBA
Class 3: September 9: The Cruise Industry

Assigned Readings:
  Windrosenetwork.com, “The Cruise Industry: General Analysis and Overview”
  Sánchez, Ricardo J., and Gordon Wilmsmeier, “The Costa Concordia Disaster and the Cruise Industry”
  Levin, Benjamin, Jennifer Jones, and Tom Slade, “Carnival Corporation Strategy Report”
  Brida, Juan Gabriel, and Sandra Zapata, “Cruise Tourism: Economic, Socio-Cultural and Environmental Impacts”
  Brea Business Research, “The Contribution of the North American Cruise Industry to the U.S. Economy in 2011” (Executive Summary Only!)

Recorded Lectures:

B. Foundations of Risk in Finance

  2 The Basics of Portfolio Theory 31:47
  3 The Basics of Capital Market Theory 21:39
  4 Miller and Modigliani on Corporate Finance 20:21
  5 Forwards and Futures Contracts 15:33

Cases:
  TBA
Class 4: September 16: Introduction to Geopolitics

Assigned Readings:
Huntington, Samuel P., “The Clash of Civilizations?”
Thornton, Bruce, “The Perils of International Idealism”

Recorded Lectures:
6 Essentials of Black-Scholes Option Pricing 28:35
7 Introduction to Swaps 8:15
8 Correlation Among Risk Exposures 10:10

C. Interest Rate Risk
0 Introduction to Section C. "Interest Rate Risk" 1:55
1 Interest Rate Risk 23:00
2 The Yield Curve 13:37

Cases:
TBA
Class 5: September 23: The Rise of China

Assigned Readings:
Mearsheimer, John, “Can China Rise Peacefully?”
Friedberg, "Hegemony with Chinese Characteristics"
Kaplan, Robert D., “The Geography of Chinese Power”
Brendon, Piers, “China Also Rises”

Recorded Lectures:

C. Interest Rate Risk

3  The Structure of Commercial Bank Portfolios  11:24
4  Measuring Interest Rate Sensitivity  9:45
5  Duration-Based Immunization Strategies  8:39
6  Asset-Liability Management  19:00

Cases:
TBA
Class 6: September 30: Geopolitical Dimensions of Business Risk

Assigned Readings:
Cukier, Kenneth, and Viktor Mayer-Schoenberger, “The Rise of Big Data: How It’s Changing the Way We Think About the World”
Kolb, Robert W., "Geopolitical Threats to World Energy Markets"
Trindle, Jamila, “Gap Gambles on Myanmar”

Recorded Lectures:

D. Credit Risk

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<tr>
<td>0</td>
<td>Introduction to Section D. &quot;Credit Risk&quot;</td>
<td>1:16</td>
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<tr>
<td>1</td>
<td>An Overview of Credit Risk</td>
<td>21:01</td>
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<td>2</td>
<td>Credit Scoring and the Credit Decision</td>
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<td>3</td>
<td>Credit Ratings and Credit Rating Agencies</td>
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<td>4</td>
<td>Credit Evaluation of Business Loans</td>
<td>8:36</td>
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<td>5</td>
<td>Credit Derivatives</td>
<td>13:31</td>
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E. Operational Risk

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<tr>
<td>0</td>
<td>Introduction to Section E. &quot;Operational Risk&quot;</td>
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<tr>
<td>1</td>
<td>Overview of Operational Risk Management</td>
<td>10:02</td>
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<tr>
<td>2</td>
<td>Strategies for Operational Risk Management</td>
<td>10:21</td>
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<td>3</td>
<td>Operational Risk: Cyber Security Example</td>
<td>6:24</td>
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<td>4</td>
<td>Managing the Risk of Catastrophes and Terrorism</td>
<td>6:24</td>
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Cases:
TBA
Class 7: October 7: Case Presentation Day

Assigned Readings:
TBA

Recorded Lectures:

| 0 | Introduction to Section F. "Measuring and Hedging Financial Risks" | 1:48 |
| 1 | Overview of Measuring and Hedging Financial Risks | 17:50 |
| 2 | Hedging Currency Risk | 8:35 |
| 3 | Hedging Equity Risk | 14:23 |
| 4 | Hedging Interest-Rate Risk | 16:08 |
| 5 | Value-at-Risk (VaR) | 20:41 |
| 6 | Financial Engineering and Risk Management | 8:39 |
| 7 | To Hedge or Not to Hedge? | 22:03 |

Cases:
TBA
Class 8: October 14: Sovereign Debt

Assigned Readings:
Kolb, Robert W., “What is Financial Contagion?”
Kolb, Robert W., “Sovereign Debt: Theory, Default, and Sanctions”
Lane, Philip R., “The European Sovereign Debt Crisis”
Pesek, William, “Asia’s Next Crisis Is a Flood of Debt”

Recorded Lectures:

G. Organizing the Management of Risk
0 Introduction to Section G. "Organizing the Management of Risk" 1:10
1 Risk Management and Corporate Governance 24:50
2 Risk Appetite, Risk Tolerances, and Risk Limits 18:13
3 The Firm's Risk Management Systems 13:01
4 Challenges to Effective Risk Management 9:42

Cases:
TBA

Class 9: October 21: Inequality and Technological Change

Assigned Readings:
Muller, Jerry Z., “Capitalism and Inequality”
Friedman, Benjamin M., “Brave New Capitalists’ Paradise’: The Jobs?”
Brynjolfsson, Eric, Andrew McAfee, and Michael Spence, “New World Order”

Recorded Lectures:

H. The Role of Capital
0 Introduction to Section H. "The Role of Capital" 1:00
1 The Role of Capital in Risk Management 9:43
2 Finance Theory, Value Creation, and Risk Management 12:10
3 Allocating Capital and Risk Management 14:36

Cases:
TBA
Class 10: October 28: Discussion of Cruise Industry

**Assigned Readings:**
View all Cruise Industry Presentations

**Recorded Lectures:**

<table>
<thead>
<tr>
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<th>I. Risk Management Tools and Techniques</th>
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<tr>
<td>0</td>
<td>Introduction to Section I. &quot;Risk Management Tools and Techniques&quot;</td>
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<tr>
<td>1</td>
<td>Risk Maps and Risk Dashboards</td>
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<td>2</td>
<td>Stress Testing and Scenario Analysis</td>
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<td>Monte Carlo Analysis</td>
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Grading

Overview of Grading:
- Best seven of nine quizzes: 65%
- One case presentations by group: 10%
- Risk analysis project and presentation by group: 25%

Description

Quizzes:
Each week we will have a quiz consisting of about 10 objective questions with a mix of mostly multiple choice questions plus occasional True/False questions. (The quiz for the first class meeting will not be graded—It is just a practice quiz.) Your grade will be based on the average score on your seven best out of nine quiz grades. (E.g., you may miss two classes or, if you take all nine quizzes, I will drop your two worst quiz grades.) The quizzes will cover: Recorded lectures assigned for the day of the class, basic knowledge of readings assigned for the day of the class, everything that occurred during the preceding class.

Case presentations by group:
Each student shall participate in a group case analysis and presentation. Each group will analyzes a brief case and make a presentation about the case to the class. The presentation on Continental Bank made by the instructor the first week might be taken as a lower bound on expectations. Here are some more specific guidelines. The presenters should assume that the class has read the case. So the presentation can start with a very brief review of the facts and issues in the case just as a reminder. The discussion should then move to specifying the risks faced by the firm and the adequacy of the firm’s responses. (Obviously the firm’s analysis and behavior was poor, or we wouldn’t have a famous debacle before us!) Try to make clear exactly how risk management failed and how the firm could have performed better. Deliverables: A polished presentation with PowerPoints, which I will then make available to the class on Blackboard. Time allotted: 30 minutes, of which some time can be devoted to class discussion and answering questions from the class, perhaps 5-10 minutes. You can use your time as you decide, but make each minute count! Group size: 3–4 persons. Due date: The PowerPoints are due at noon on the day of the presentation. Please submit via email.
Cruise Industry Risk Analysis Project

This is a major project and a significant part of each student’s grade. (As an example, with four group members each receiving 25 percent of their grade based on the project, the entire project is worth a full course grade effort for one person, so the level of effort and achievement should be commensurate with that weight.) Each group is to choose a risk management topic related to the cruise industry. The topic should be applicable to the industry, and not to just one particular company. Otherwise, there are no restrictions, and I will be looking to your exercise of creativity and ingenuity.

There are two deliverables:
Prospectus
Final Presentation

Prospectus:
A word document of not more than 1000 words outlining the general topic you plan to explore and the approach you plan to take. I will give feedback and hope to merely encourage you to pursue your idea. If I sense problems with your plan, I will intervene and try to help ensure a more successful direction. A key part of this project is for you to develop your own ideas, however.

Final Presentation:
A 25-30 minute web-delivered presentation. This can include video you produce, PowerPoints with voice over, clips from the web, etc. This is wide open, but it is to be primarily, but not exclusively, content that you develop. A few short excerpts from other sources is fine, for example, but mostly this material should be your own creation. I am wide open on what you do, and I really hope to see your creativity flower. One word of warning, however: There doesn’t need to be any frivolity. For example, in some class presentations, students have brought candy to hand out to the audience—Don’t go in that kind of direction please. The presentation should be serious—think of something that you might present in a corporate setting to your boss and higher-ups.