Course Overview and Objectives
This course deals with the fundamentals of risk management. It traces back to the historical roots of risk and the invention of risk transfer techniques. Starting from the basic insurance, forward, futures and option products, the students will experience how to create complex financial instruments to meet the growing demand for better risk management. Insurance plays an important role in mitigating hazards and catastrophic risks for corporations. How do firms manage enterprise risk, both domestically and internationally? Managing credit risk is a growing challenge.

This course is fundamental to students who are serious in pursuing a career in risk management.

Course Materials
Lecture notes and case materials will be distributed either in class or via Blackboard.

Main textbook is Options, Futures and Other Derivatives, 6th Edition, by John C. Hull

Wall Street Journal, Economist and Business Week are other reading materials. Students should be familiar with basic algebra and Excel.

Grading
Midterm: 35%
Final: 35%
Cases: 30% (work in groups of 3)

Course Outline
Week 1 (Sep. 4) Hull chapter 1
Spot, forward, futures and options
History of Risk – part 1

Week 2 (Sep. 11) Hull, chapters 2 & 3
Futures and hedging strategies
History of Risk – part 2
**Week 3 (Sep. 18)**  
Hull, chapters 5, 9, 13 & 15  
Drivers of forward, futures and option prices, Put-Call Parity.  
Black-Scholes model and risk measures.

**Week 4 (Sep. 25)**  
*Case 1: CME Credit Index Event Contract*  
Enterprise Risk Management – the Big Picture.

**Week 5 (Oct. 2)**  
Lecture Notes  
Insurable risk, adverse selection and moral hazard  
Insurance contracts

**Week 6 (Oct. 9)**  
Lecture Notes  
Insurance derivatives, reinsurance, catastrophic  
Insurance contract and

**Week 7 (Oct. 16)**  
Hull, chapters 6, 7  
Managing interest-rate risk and currency risk

**Week 8 (Oct. 23)**  
Lecture Notes, chapter 31  
Managing project, political & reputation risks

**Week 9 (Oct. 30)**  
Midterm

**Week 10 (Nov. 6)**  
Hull, chapters 18 & 19  
Managing Value at Risk (V@R)

**Week 11 (Nov. 13)**  
Hull, chapter 20  
Credit risk, credit scores & Credit V@R

**Week 12 (Nov. 20)**  
*Case 2: Create a new Swap*

**Week 13 (Nov. 27)**  
Hull, chapter 21  
Credit derivatives

**Week 14 (Dec. 4)**  
Hull, chapter 22, 23, 30  
Energy and weather derivatives  
Other derivatives

**Week 15 (Dec. 11)**  
Lecture Notes, chapter 32  
Structured products – CMO, CDO and Senior-Subordinate  
Learn from others’ mistakes.

**Week 16 (Dec. 18)**  
Final Exam