

STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK



COURSE OUTLINE

FSMA 422 – RISK MANAGEMENT

Prepared By: Umesh Kumar

SCHOOL OF BUSINESS AND LIBERAL ARTS
BUSINESS DEPARTMENT

April 2015

A. **TITLE:** Risk Management

B. COURSE NUMBER: FSMA 422

C. CREDIT HOURS: (3)

D. WRITING INTENSIVE COURSE: No

E. COURSE LENGTH: (15 weeks)

F. SEMESTER(S) OFFERED: Fall

G. HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY: 3 lecture hours per week

H. CATALOGUE DESCRIPTION: The goal of this course is to provide students with a good conceptual framework for analyzing risk and making risk management decisions in a corporate setting. It focuses on the ways in which individuals and corporations assess, control, and transfer risk. Issues such as what risk is, how it can be measured and transferred, why individuals and corporations care about risk, and how effective risk management programs can be designed and implemented.

I. PRE-REQUISITES/CO-COURSES: FSMA 420 Financial Derivatives or permission of the instructor.

J. STUDENT LEARNING OUTCOMES: By the end of this course, students are able to:

<i>Course Objective</i>	<i>Institutional SLO</i>
a. Understand the nature of risk, risk management, theory and practice of insurance	2. Crit. Thinking 3. Prof. Competence
b. Identify the types of risk that individuals and corporations are exposed based on their frequency and severity	2. Crit. Thinking 3. Prof. Competence
c. Analyze historical data for risks estimation: loss in value, ruin probability, VaR etc	2. Crit. Thinking 3. Prof. Competence
d. Evaluate various means of controlling risks using different methods applied at different levels	2. Crit. Thinking 3. Prof. Competence
e. Design risk control and insurance strategies, and evaluate their costs and benefits in order to choose the most appropriate risk management program	2. Crit. Thinking 3. Prof. Competence

K. TEXTS:

John Hull (2012) *Risk Management and Financial Institutions*, 4th Edition, ISBN-13: 978-1118955949, Wiley Publication

L. REFERENCES:

Rejda, G.E. (2004). *Principles of Risk Management and Insurance*, 9th edition, Addison-Wesley

M. EQUIPMENT: Technology enhanced classroom, access to company financial statements, yahoo finance, and computer internet access.

N. GRADING METHOD: A-F

O. MEASUREMENT CRITERIA:

- Exams
- Quizzes
- Homework
- Project
- Participation

P. DETAILED OUTLINE:

1 Introduction

- 1.1 Risk vs. Return for Investors
- 1.2 The Efficient Frontier
- 1.3 The Capital Asset Pricing Model

2 Banks

- 2.1 Commercial Banking
- 2.2 The Capital Requirements of a Small Commercial Bank
- 2.3 Deposit Insurance
- 2.4 Investment Banking
- 2.5 Securities Trading

3 Insurance Companies and Pension Plans

- 3.1 Life Insurance
- 3.2 Annuity Contracts
- 3.3 Mortality Tables
- 3.4 Longevity and Mortality Risk
- 3.5 Property-Casualty Insurance
- 3.6 Health Insurance
- 3.7 Moral Hazard and Adverse Selection
- 3.8 Reinsurance

4 Mutual Funds and Hedge Funds

- 4.1 Mutual Funds
- 4.2 Hedge Funds
- 4.3 Hedge Fund Strategies
- 4.4 Hedge Fund Performance

5 Trading in Financial Markets

- 5.1 The Markets
- 5.2 Long and Short Positions in Assets
- 5.3 Derivatives Markets
- 5.4 Plain Vanilla Derivatives
- 5.5 Clearing Houses

6 The Credit Crisis of 2007

- 6.1 The U.S. Housing Market
- 6.2 Securitization

- 6.3 The Crisis
- 6.4 What Went Wrong?
- 6.5 Lessons from the Crisis

7 How Traders Manage Their Risks

- 7.1 Delta
- 7.2 Gamma
- 7.3 Vega
- 7.4 Theta
- 7.5 Rho
- 7.6 Calculating Greek Letters

9 Value at Risk

- 9.1 Definition of VaR
- 9.2 Examples of the Calculation of VaR
- 9.3 VaR vs. Expected Shortfall
- 9.4 VaR and Capital

Q. LABORATORY OUTLINE: None