

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



COURSE OUTLINE

FSMA420 – FINANCIAL DERIVATIVES

Prepared By: Dr. Chengru Hu

**SCHOOL OF BUSINESS & LIBERAL ARTS
BUSINESS DEPARTMENT
April 2015**

- A. **TITLE:** Financial Derivatives
- B. **COURSE NUMBER:** FSMA420
- C. **CREDIT HOURS:** 3
- D. **WRITING INTENSIVE COURSE:** No
- E. **COURSE LENGTH:** 15 weeks
- F. **SEMESTER(S) OFFERED:** Spring
- G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:**
3 lecture hours per week
- H. **CATALOG DESCRIPTION:** This course examines the dramatic growth of the derivatives markets in the last two decades. This growth, triggered by deregulation, globalization, increased uncertainty and volatility, has empowered enterprises to successfully manage their financial price risk. Topics to be covered include: the use of derivatives for risk protection, cash flow modification, arbitrage, and investment.
- I. **PRE-REQUISITES/CO-REQUISITES:** (List courses or indicate “none”)
a. Pre-requisite(s): Junior level status in Financial Services or permission of the instructor
b. Co-requisite(s): none
- J. **GOALS (STUDENT LEARNING OUTCOMES):**
By the end of this course, the student will be able to:
1. Evaluate various derivative instruments utilized by financial managers.
 2. Analyze how and where derivatives may be utilized to protect against risk.
 3. Demonstrate how derivatives may be used to modify cash flows emanating from or required for a specific instrument or project.
 4. Evaluate and apply the concept of arbitrage.
 5. Utilize derivatives for investment purposes.
 6. Evaluate, analyze and compare the solution to a specific problem with and without the use of derivatives.

<i>Course Objective</i>	<i>Institutional SLO</i>
a. Evaluate various derivative instruments utilized by financial managers	2. Crit. Thinking 3. Prof. Competence
b. Analyze how and where derivatives may be utilized to protect against risk	2. Crit. Thinking
c. Demonstrate how derivatives may be used to modify cash flows emanating from or required for a specific instrument or project	2. Crit. Thinking 3. Prof. Competence
d. Evaluate and apply the concept of arbitrage	2. Crit. Thinking
e. Utilize derivatives for investment purposes	2. Crit. Thinking
f. Evaluate, analyze and compare the solution to a	2. Crit. Thinking

specific problem with and without the use of derivatives.	3. Prof. Competence
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K. TEXTS:

Hull, J. (2014). Fundamentals of Futures and Options, 8e, ISBN: 0132993341 ,Upper Saddle River, New Jersey, Prentice Hall.

L. REFERENCES: The Wall Street Journal, The New York Times, Financial Times, plus, various on-line financial analytics, databases, news sources, and calculators.

M. EQUIPMENT: SUNY Canton e-mail address and access to internet is required for research portions of the course requirements.

N. GRADING METHOD: A-F

O. MEASUREMENT CRITERIA/METHODS:

- Exams
- Quizzes
- Homework
- Participation

P. DETAILED COURSE OUTLINE:

- I. Structure of option pricing
 - A. Regulated Exchanges
 - B. Over the Counter Markets
 - C. Stock, Interest Rate Options
- II. Principles of Option Pricing
 - A. Black-Scholls Model
 - B. Binomial Pricing
- III. Basic Option Principles and Strategies
 - A. Calls
 - B. Puts
 - C. Spreads
 - D. Combinations
 - E. Hedging
- IV. Advanced Option Strategies
 - A. Synthetics
 - B. Structured Products
- V. Greeks
 - A. Delta
 - B. Gamma
 - C. Theta
- VI. Fundamentals of the Future Markets
 - A. Regulated Futures Contracts
 - B. Stock Index Futures
 - C. Interest Rate Futures
 - D. Commodity Futures

- E. Foreign Exchange Futures
- VII. Future Contracts and Portfolio Management
 - A. Hedging techniques
 - B. Alternative asset allocation
- VIII. Interest Rate Swaps
 - A. Interest Rate Options
 - B. Interest Rate Swap Pricing
- IX. Other Derivative Assets
- X. Introduction to Financial Engineering
 - A. Contemporary Issues
 - B. Risk Management
- Q. LABORATORY OUTLINE: None.**