

COURSE IMPLEMENTATION DATE: [October 2000]
 COURSE REVISED IMPLEMENTATION DATE: [September 2001]
 COURSE TO BE REVIEWED: [September 2005]
 (Four years after implementation date)

OFFICIAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.

Shaded headings are subject to change at the discretion of the department and material will vary
 - see course syllabus available from instructor

FACULTY/DEPARTMENT: BUSINESS ADMINISTRATION

BUS 434		3
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
RISK MANAGEMENT AND FINANCIAL ENGINEERING		

COURSE DESCRIPTIVE TITLE

CALENDAR DESCRIPTION:

This course deals with ways in which the risks are quantified and managed in a portfolio that includes derivatives Topics include a review of the Black-Scholes model of option pricing, and extending this theory to institutional hedging. Also examined is value at risk and empirical issues in risk management such as estimating volatilities and correlations.

PREREQUISITES: Acceptance to the Bachelor of Business Administration degree and BUS 349

COREQUISITES: None

SYNONYMOUS COURSE(S)

(a) Replaces: N/A
 (Course #)
 (b) Cannot take N/A for further credit
 (Course #)

SERVICE COURSE TO:

(Department / Program)
 (Department / Program)

TOTAL HOURS PER TERM: 45

STRUCTURE OF HOURS:

Lectures:	35	hrs
Seminar:	10	hrs
Laboratory:		hrs
Field Experience:		hrs
Student Directed Learning:		hrs
Other (Specify):		hrs

TRAINING DAY-BASED INSTRUCTION

LENGTH OF COURSE: _____
 HOURS PER DAY: _____

MAXIMUM ENROLMENT: 25

EXPECTED FREQUENCY OF COURSE OFFERING: _____

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only) YES _____ NO X

WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department) YES _____ NO X

TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE: YES _____ NO X

AUTHORIZATION SIGNATURES:

Course designer(s): Vlad Dvoracek	Chairperson: _____ (Curriculum Committee)
Department Head: Michael MacColl	Dean: Karen Evans
PAC Approval in Principle Date: _____	PAC Final Approval Date: November 29, 2000

 COURSE NAME / NUMBER

LEARNING OBJECTIVES / GOALS / OUTCOMES/ LEARNING OUTCOMES:

This course is designed to give students experience in risk management. Students will learn how to quantify the risks of holding a particular portfolio. Principle sources of portfolio risk include movements in asset price volatility, asset price level, and interest rates. Students will learn continuous trading hedging techniques commonly used to make short positions in non-standard options risk-free. Finally, using a web-based trading game, students will gain practical experience in managing a portfolio by trading in order to remove all risk from a short position in a non-traded option.

METHODS:

The material in the course will be presented in lecture. This course is based on solving problems and as such there will be an assignment each week. Students will be put into groups, and each week a different group will be responsible for presenting solutions to that week's assignment.

Students in this course will also be required to sign up for the TDWaterhouse trading game put on by www.ichallenge.net. They will be given a short position in a non-traded option and asked to use hedging techniques taught in this course to keep the short position value constant. This is the type of work that goes on in the capital market divisions of investment banks.

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR YES X NO

METHODS OF OBTAINING PLAR:

Exam and/or portfolio.

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

Assigned:

John C.. Hull, *Options Futures and other Derivatives*, 4th ed.; Solutions manual for *Options, Futures and Derivatives*.

Supplemental:

Paul Wilmott, Sam Howison, and Jeff Dewynne, *The Mathematics of Financial Derivatives: A Student Introduction*

SUPPLIES / MATERIALS:**STUDENT EVALUATION:**

[An example of student evaluation for this course might be:]

Assignment presentations	20%
Midterm exam	30%
Final exam	50%

COURSE NAME / NUMBER

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

1. The stochastic behaviour of stock prices and the Black-Scholes model
2. Options on stock indices, currencies, and futures
3. Hedging exposure for non-standard options contracts: The Greek Letters
4. Value at risk
5. Estimating volatilities and correlations
6. Volatility similes and alternatives to Black-Scholes
7. Credit risk