

Derivative Securities
FIN 410
Course Syllabus

Course Description

Students gain a thorough understanding of options, futures, and other financial instruments. Skills are developed in basic pricing analysis, use of pricing models, and trading and hedging strategies. Students are first introduced to the basic techniques for pricing, hedging, and other analysis. Next, these techniques will be applied through an introduction of hedging strategies. The end goal is to develop skills which the students can apply in derivative markets.

Assignments: Each student will be required to complete a series of assignments dealing with derivative pricing and strategies. These assignments will require students to use theoretical models, monitor market prices, and track strategy positions.

Course Objectives

At completion of the course, students will be able to:

- ⇒ *Describe* the operation of option/futures markets
- ⇒ *Calculate* the price various derivative securities
- ⇒ *Create* strategies which meet specified goals (i.e. risk reduction)
- ⇒ *Evaluate* and *change* these strategies in light of changing economic conditions
- ⇒ *Apply* theoretical derivatives knowledge via spreadsheet applications

Instructor

Dr. Matthew W. Will

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Web: www.mattwill.com (see course web page for supplemental information)

Office Hours

Mon 11:00 am – 12:00 am

Tue 4:30 pm – 5:30 pm

Fri 4:00 pm – 5:00 pm

By appointment

Student Handbook

All students are required to have a complete understanding of the student handbook, especially as it related to student rights and responsibilities. It is up to the student to understand the this document.

Required Materials

Fundamentals of Futures and Options Markets by John C. Hull, 7th Edition, Prentice Hall, 2011.
<http://www.rotman.utoronto.ca/~hull/>

Email Account & turnitin.com account

Financial Calculator - (recommend HP12C)

Access to Personal Computer and Spreadsheet program

ON RESERVE (**BKM**): Essentials of Investment by Bodie, Kane and Marcus, 5th edition, McGraw Hill, 2004...and...Options as a Strategic Investment by McMillian.

Course Requirements

30% Final Exam
40% Quizzes
30% Assignments

Grading

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

Pluses and minuses are assigned at the instructor's discretion, based on participation, preparation, attendance and score within each range.

Academic Dishonesty and Plagiarism

You must not adopt or reproduce ideas, words, or statements of another person without giving an appropriate acknowledgement to the source. You must give due credit to the originality of others and acknowledge an indebtedness wherever you:

- Quotes another person's actual words, either oral or written;
- Paraphrases another person's words, either oral or written;
- Uses another person's ideas, opinions, or theories; or
- Cites facts, statistics, or other illustrative material, unless the information is common knowledge.

All assignments must be your original work and not the work of other students. Neither group work nor the individual work of another student may be submitted by you. Submission of such work will be considered academic misconduct. Incidents of academic misconduct, dishonesty and/or plagiarism will be handled as per the Student Handbook.

Assignments

All assignments must be submitted in a single MS Word file via www.turnitin.com by the due date, unless instructed otherwise in class. Assignments will be graded on completion and/or accuracy, depending on the nature of the assignment, at the discretion of the instructor. You will need an ID and password to register for the course. All material is on the course web site.

Quizzes / Exams

The exams are designed to evaluate the student's comprehension of material rather than just memorization. Questions may include short answer/essay, as well as problems. On exams, you will be responsible for all of the assigned readings.

If you must miss an examination, you must let me know about this prior to the exam. It will be solely at the instructor's discretion whether you may take a make-up exam and under what terms.

Class Attendance, Preparation & Participation

Class attendance is an important part of the academic process, and you are expected to attend classes regularly and to manage your schedule in order to meet the demands of this course. If you are absent, you will be responsible for arranging makeup work to be completed prior to the absence or immediately upon return to class at the instructor's discretion. As per the student handbook, reasonable documentation or verification of claims regarding absences may be requested.

Class preparation is critical to success in this course. You are expected to:

- (a) read the assigned material prior to arriving to class, as well as
- (b) review the solved problem illustrations in the chapter and
- (c) prepare a list of questions that you have about the topic.
- (d) participate in class discussions

Please note that the course topics build upon prerequisite knowledge of fundamental business concepts, algebra and basic spreadsheet skills. If you feel you may be deficient in any of these areas, you are encouraged to review them and/or seek tutoring outside of class.

FIN 410 - Fall 2010

Tentative Schedule (subject to change at the instructor's discretion)

Date	Topic	Reading Assignment	Assignments	Slides
30-Aug	Review Course Options overview	Ch 1 BKM - 14.1, 14.3		Set 1 & 2
1-Sep	Futures overview	Ch - 2 BKM - 16.1, 16.2, 16.5	#1: Ch 1 - 8, 9, 13, 14, 15, 16, 19, 22, 23	Set 3
3-Sep		WebLink 1 WebLink 2	# 2: Ch 2 - 8, 9, 10, 11, 12, 15, 18, 19, 21, 23	Set 3
6-Sep	NO CLASS - Labor Day			
8-Sep	Commodity futures	Weblink 3		Set 4
10-Sep	NO CLASS		STUDY FOR QUIZ	
13-Sep	Futures hedging strategies	Ch 3	# 3: Ch 3 - 8, 9, 10, 12, 15, 16, 17, 18, 20	Set 5
15-Sep	Futures hedging strategies	Weblink 4 - Ch 5 thru 7		Set 6
17-Sep	Quiz			

20-Sep	Financial Regulation		Look up article on financial regulation bill	NEWS
22-Sep	Interest, Forward and Futures Rates	Weblink 5 - Appendix C	# 4 (Fincoach) 5 Basic Bond Price 5 Basic Bond YTM	Set 7
24-Sep	Duration	various text pages See index	# 5 (Fincoach) 5 Bond Duration	Set 8
27-Sep	Financial futures	Ch 4	# 6: Ch 4 - 8 thru 14	Set 9
29-Sep	Financial futures	Ch 5	# 7: Ch 5 - 9, 10, 11, 12, 15	Set 10
1-Oct	Financial futures	Ch 6 Weblink 5 - Ch 1 thru 3		Set 11
4-Oct	Hedge Ratios	Class notes		Set 12
6-Oct	Assignment review session		STUDY FOR QUIZ	
8-Oct	Quiz			
11-Oct	Swaps	Ch 7 Weblink 6	# 8: Ch 7 - 9, 10, 11	Set 13
13-Oct	Currency SWAPS	Ch 7 Weblink 6	#9: Ch 7 - 12, 13	Set 13
15-Oct	Foreign exchange	Ch 3 thru 7		Set 14
18-Oct	NO CLASS		FALL BREAK	
20-Oct	Foreign exchange	Ch 3 thru 7	#10: Ch 5 - 13, 14, 17, 30	Set 14
22-Oct	Option markets	Ch 8 & McMillan Ch 1 (on reserve)		Set 15
25-Oct	Option basics	Ch 8 & McMillan Ch 1 (on reserve)	look up article on expensing options	Set 16
27-Oct	Option pricing	Ch 13	# 11: Ch 13 - 13, 14, 18, 19	Set 16 / 17
29-Oct	Option pricing	Weblink 7	# 12- Calculate historical and implied volatility and probability intervals for any stock option	Set 17
1-Nov	Option pricing	Ch 12	# 13: Ch 12- 9, 10, 12	Set 18
3-Nov	Assignment review session		STUDY FOR QUIZ	
5-Nov	Quiz	Option Pricing		
8-Nov	SWAP QUIZ	Create SWAPS and Foreign Exchange		
10-Nov	Credit Default SWAPS	Ch 23	Class Discussion	NEWS
12-Nov	Option strategies	Review Quiz and Ch 10 McMillan appendix A, B, C (on reserve)		Set 19

15-Nov	Guest Speaker		points for attendance	
17-Nov	Option strategies	Ch 15	# 14 (Word) -Write a 1 page analysis of an article which describes how an option strategy is being used.	Set 19
19-Nov	Futures options	Ch 16		Set 20
22-Nov	The Greeks	Ch 17	# 15: Calculate the greeks for the option used in homework # 12	Set 21
24-Nov	NO CLASS		Thanksgiving	
26-Nov	NO CLASS		Thanksgiving	
29-Nov	Volatility Smiles	Ch 19		Set 22
1-Dec	Mortgage Meltdown	Ch 8		NEWS
3-Dec	Mortgage backed securities	Ch 22 Weblink 8 Weblink 9		Set 23
6-Dec	VaR	Ch 20	# 16:Ch 20: 10, 11, Calculate the 10 day, 99% level VaR for \$1 mil investment in the stock from # 12	Set 24
8-Dec	Assignment review session		STUDY FOR QUIZ / EXAM	
10-Dec	Quiz			
Week of 12/13	FINAL EXAM			