## FIN 512 FINANCIAL DERIVATIVES SPRING 2019

# 4 Hours, Lecture-Discussion CRN 32686

245 Wohlers Hall 11:00 AM-12:20 PM Monday & Wednesday

#### **Professor**

Paul E. Peterson, Ph.D. pepeters@illinois.edu
452 Wohlers Hall
217-333-5718

Office hours 12:30-1:50 PM Monday & Wednesday, or by appointment

## **Course Website**

https://www.compass.illinois.edu

We will use Compass 2G for our course website. Announcements, lecture slides, assignments, and grades will be posted on this site. Please make sure you are properly registered in the Compass system and log in frequently.

## **Course Objectives**

Upon completion of FIN 512, students will have a solid understanding of derivative instruments (forwards, futures, options, and swaps) including how they are traded, how they are priced, and how they can be used for risk management and investment purposes.

#### Text

Robert L. McDonald. Derivatives Markets, Pearson Prentice Hall, any edition.

There also will be supplemental reading assignments from time to time on topics of current interest.

#### **Problem Sets**

Problem sets will be used to gain experience and proficiency in solving relevant problems. These assignments will be collected and graded. <u>Late assignments will not be accepted.</u>

#### **Trading Project**

A web-based program will be used for simulated real-time trading. The goal is to give each student first-hand experience and exposure to derivatives price behavior in a real-time environment. Additional details are provided in a separate document which is considered part of this syllabus.

## **In-Class Exams**

There will be two in-class exams: <u>Wednesday</u>, <u>February 27</u> and <u>Wednesday</u>, <u>April 3</u>. Failure to attend an exam without making prior arrangements or giving proper notification will result in a score of zero for the exam.

Bring your university identification to all exams. Calculators used during exams are subject to inspection. The use of laptop computers, tablets, cell phones, or other electronic devices during an exam is prohibited.

#### **Final Exam**

The final exam will be given 7:00-10:00 PM Thursday, May 9.

## **Grading Policy**

Problem Sets	20%
Trading Project	20%
Exam 1 (in-class)	20%
Exam 2 (in-class)	20%
Final Exam	20%

Final letter grades will be determined by the weighted score you earn in this course. I will use +/- in assigning final letter grades as follows:

A+	97.0 & up	A	93.0 & up	A-	90.0 & up
B+	87.0 & up	В	83.0 & up	В-	80.0 & up
C+	77.0 & up	C	73.0 & up	C-	70.0 & up
D+	67.0 & up	D	63.0 & up	D-	60.0 & up
		F	below 60.0		

Notice that there is no curving or rounding up/down at any step in this process (i.e., all decimals will be used). Excel will be used to perform all calculations in a straight-through (not step-by-step) process to avoid any rounding errors. All grades will be posted on Compass.

## **Attendance Policy and Excused Absences**

Attendance is expected at each class session. If there is an excusable circumstance, as defined in the University of Illinois at Urbana-Champaign *Student Code*, which prevents you from taking an exam or submitting an assignment at the scheduled time, contact me immediately. An excused absence normally requires an absence letter or other documentation.

## **Academic Integrity Policy**

The University of Illinois at Urbana-Champaign *Student Code* is considered part of this syllabus. You should read the Code at <a href="http://studentcode.illinois.edu/">http://studentcode.illinois.edu/</a> and you should pay particular attention to Article 1, Part 4: Academic Integrity Policy and Procedure.

I will maintain a zero-tolerance policy for cheating, plagiarism, fabrication, and other violations of academic integrity. At a minimum, any dishonest conduct will result in an automatic score of zero on the exam or assignment in question, and may result in a failing grade for the course.

Each student is expected to review and abide by the Academic Integrity policy. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask me if you are ever in doubt about what constitutes cheating, plagiarism, or any other breach of academic integrity.

## **Special Needs**

If you have special needs, please see me as soon as possible so we can discuss suitable accommodations. It is your responsibility to contact me; it is not my responsibility to find you. To obtain disability-related academic adjustments and/or auxiliary aids, contact Disability Resources and Educational Services (DRES): 1207 South Oak Street, Champaign; 217-333-4603 (V/TDD) or disability@uiuc.edu

#### **Emergency Response**

All students should be familiar with the campus emergency response recommendations at <a href="http://police.illinois.edu/emergency-preparedness/">http://police.illinois.edu/emergency-preparedness/</a> and the Wohlers Hall floor plan at <a href="http://police.illinois.edu/dpsapp/wp-content/uploads/2018/06/u0159.pdf">http://police.illinois.edu/dpsapp/wp-content/uploads/2018/06/u0159.pdf</a> You are encouraged to sign up at <a href="http://police.illinois.edu/services/stay-informed/illini-alerts/">http://police.illinois.edu/services/stay-informed/illini-alerts/</a> to receive emergency text messages.

## Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to the Family Educational Rights and Privacy Act (FERPA) should notify me as soon as possible to ensure protection of the privacy of your attendance in this course. See <a href="http://registrar.illinois.edu/ferpa">http://registrar.illinois.edu/ferpa</a> for more information on FERPA.

## COURSE CALENDAR AND SCHEDULE

		<b>McDonald</b>
Monday, January 14	Introduction	
Wednesday, January 16	Principles of Derivatives 1	Chapters 1-3
Monday, January 21	NO CLASS – MLK DAY	_
Wednesday, January 23	Principles of Derivatives 2	
Monday, January 28	Trading Project and OTIS	
Wednesday, January 30	Principles of Derivatives 3	
Monday, February 4	Risk Management Strategies 1	Chapter 4
Wednesday, February 6	Risk Management Strategies 2	
Monday, February 11	Investment/Speculation Strategies	
Wednesday, February 13	Forwards and Futures 1	Chapter 5
Monday, February 18	Forwards and Futures 2	_
Wednesday, February 20	Commodities and Currencies 1	Chapter 6
Monday, February 25	Commodities and Currencies 2	_
Wednesday, February 27	EXAM 1	
Monday, March 4	Equities and Stock Indexes	
Wednesday, March 6	Interest Rates 1	Chapter 7
Monday, March 11	Interest Rates 2	_
Wednesday, March 13	Interest Rates 3	
Monday, March 18	NO CLASS – SPRING BREAK	
Wednesday, March 20	NO CLASS – SPRING BREAK	
Monday, March 25	Swaps 1	Chapter 8
Wednesday, March 27	Swaps 2	
Monday, April 1	Put-Call Parity	Chapter 9
Wednesday, April 3	EXAM 2	-
Monday, April 8	Binomial Pricing 1	Chapter 10
Wednesday, April 10	Binomial Pricing 2	-
Monday, April 15	Black Scholes 1	Chapter 11
Wednesday, April 17	Black Scholes 2	-
Monday, April 22	Black Scholes 3 and the Greeks	Chapter 12
Wednesday, April 24	Market Making and Delta Hedging 1	Chapter 13
Monday, April 29	Market Making and Delta Hedging 2	
Wednesday, May 1	Overview/Review	
Thursday, May 9	FINAL EXAM – 7:00-10:00 PM	