

FINA 471: Derivative Securities
Spring Semester 2019
Instructor: Igor Osobov

Time and room

Section 001: TR 4:25pm – 5:40pm, DMSB room 141

Section 002: TR 2:50pm – 4:05pm, DMSB room 111

Office hours

Room: DMSB 483C

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Time: T 10:00 a.m. – 10:45 p.m.

R 2:00 p.m. – 2:45 p.m.

or by appointment

Course Overview

A derivative is a contract whose value is determined by the values of other more basic underlying variables, e.g. commodity prices, stock prices, foreign exchanges rates, etc. Such contracts are actively traded in financial markets for hedging, speculation, or arbitrage purposes. A solid understanding of these financial instruments is essential for any finance-related career. This course covers the trading, structure, and pricing of the most common derivatives including forward contracts, futures contracts, options, and swaps. By the end of this course, students will have a good knowledge of how these contracts work, how they are used, and how they are priced.

Prerequisites

Finance 363 and Finance 469. Familiarity with mathematics and statistics is also required.

Course Materials

1. The required text is John C. Hull, Fundamentals of Futures and Options Markets, 9th edition, Pearson (2017).
2. Powerpoint slides and other course materials will be distributed through Blackboard. Some announcements may be communicated by e-mail, so you should also have your University e-mail account functioning.

Grading

Exam 1: 20% of total grade

Exam 2: 25% of total grade

Exam 3: 25% of total grade

Problem Sets: 15% of total grade

Participation: 15% of total grade

Grade cutoffs will be **approximately** as follows:

A: ≥ 90 B+ ≥ 85 B: ≥ 80 C+ ≥ 75 C: ≥ 70 D+ ≥ 65 D: ≥ 60 F: < 60

If necessary, your total scores will be curved to obtain a distribution of grades that is typical for similar classes at Darla Moore School of Business.

Exam Policies

No make-up exams will be given. In case of an excused absence (e.g. medical emergency) from a midterm exam, its weight will be spread over all other components of the course grade proportionately. In case of an unexcused absence, you will receive a score of zero for the exam. If absent from the final exam without an acceptable excuse, you will be given the grade of F on the course. If excused, you will be assigned a grade of I (incomplete).

Problem Sets

Three mandatory individual problem sets will be assigned during the semester. Answers should be submitted in class on or before the due date specified in the assignment. E-mail submissions are acceptable in special cases. Solutions will be available immediately after the submission deadline, so no late submissions will be accepted.

Class Participation/Attendance

Participation is important for effective learning, so I would like to discuss the material in class instead of presenting it to you. Therefore, it is absolutely essential that you read the assigned material before coming to class.

Your participation in each class will be graded as follows. You will earn 1 point for being in attendance (you will need to submit a sheet of paper with your name to me each time so I can track your attendance). You may earn up to 2 additional points for contributing to class discussion by asking or answering questions, bringing related outside material to my attention, etc. You may lose 1 point each time you fail to participate when asked to do so.

If you miss a class, it is your responsibility to keep up with the material and be informed of any announcements made in that class.

Laptops, cell phones, etc

Open laptops are **NOT** allowed in class except when we perform specific exercises. No use of cell phones (text messaging included) or other gadgets is allowed.

Academic Dishonesty

The University policy regarding academic dishonesty will be strictly enforced. You are responsible for reviewing the information at <http://www.sc.edu/academicintegrity/honorcode.html>. Suspected violations of the honor code will be reported to office of academic integrity. The office of academic integrity's web site (<http://sc.edu/academicintegrity>) has useful information about the process that is followed when a suspected violation has occurred.

Disabilities

Any student with a documented disability should contact the Student Disability Resource Center at 777-6142 to make arrangements for appropriate accommodations.

TENTATIVE SCHEDULE OF CLASSES

WEEK	DATE	TOPIC	
Week 1	01/15, 01/17	Overview of Derivatives Markets	Ch. 1
Week 2	01/22, 01/24	Overview of Derivatives Markets (cont'd)	Ch. 1
Week 3	01/29, 01/31	Mechanics of Futures Markets	Ch. 2
Week 4	02/05, 02/07	Hedging with Futures	Ch. 3
Week 5	02/12, 02/14	Determination of Forward and Futures Prices	Ch. 5
Week 6	02/19	Exam 1 (in class)	
	02/21	Determination of Forward and Futures Prices (cont'd)	Ch. 5
Week 7	02/26, 02/28	Mechanics of Options Markets	Ch. 9
Week 8	03/05 ,03/07	Properties of Stock Options	Ch. 10
Week 9	03/12, 03/14	Spring Break (no classes)	
Week 10	03/19, 03/21	Option Strategies	Ch. 11
Week 12	03/26	Exam 2 (in class)	
	03/28	The Binomial Option Pricing Model	Ch. 12
Week 11	04/02, 04/04	The Binomial Option Pricing Model (cont'd)	Ch. 12
Week 13	04/09, 04/11	The Black-Scholes-Merton Model	Ch. 13, 19
Week 14	04/16, 04/18	The Black-Scholes-Merton Model (cont'd)	Ch. 13, 19
Week 15	04/23, 04/25	The Greek letters	Ch. 17

Final Exam

Section 001: May 2, Thursday, 4:00 p.m.

Section 002: May 2, Thursday, 12:30 p.m.