

Course Syllabus (1st Semester, 2017- 2018)

COURSE TITLE: Financial Derivatives

INSTRUCTOR: Prof. Yuri Loktionov

EMAIL: TBD

STUDENTS: Undergraduate students

TIME: Thursdays, 15:10 – 17:00

PLACE: TBD

OFFICE: TBD

OFFICE HOURS: TBD

I. OBJECTIVES

1. Knowledge:

The course explores markets and investments in traditional derivatives (forwards, futures, options), as well as credit and embedded derivatives. It is designed as an intermediate level course and is intended to build a solid basis for further studies in derivatives. The focus of the course is on factors and attributes that are critical for pricing, valuation and risk assessment of these instruments – with the ultimate goal of making sound hedging and investment decisions.

Prerequisite courses: Principles of Accounting and Corporate Finance

2. Skills / Ability:

- ✓ Comprehensive coverage of the derivatives markets
- ✓ Solid understanding of the underlying theories and be able to apply pricing and valuation models for various derivatives instruments
- ✓ The ability to assess the risks of these financial instruments and use them for hedging, speculation and other investment purposes

The course will be valuable to students seeking a career in various finance-related fields such as risk management, investment / corporate banking, asset management, etc.

II. WEEKLY ARRANGEMENTS

Week	Date	Content	Assignments
1	Sep 14	Options Fundamentals (L1)	
2	Sep 21	Stock Option Properties (L2)	CFA Reading 50 Hull 2014: Ch. 10-11
3	Sep 28	Normal & Lognormal Distributions (L3)	CFA Reading 50 Hull 2014: Ch. 15
4	Oct 5	<i>NATIONAL DAY WEEK – No classes</i>	
5	Oct 12	Black-Scholes-Merton Model (L4)	CFA Reading 50 Hull 2014: Ch. 15
6	Oct 19	Options “Greeks” (L5)	CFA Reading 50 Hull 2014: Ch. 19
7	Oct 26	Employee Stock Options (L6)	CFA Reading 50 Hull 2014: Ch. 16

8	Nov 2	Binomial Option Pricing (L7)	CFA Reading 50 Hull 2014: Ch. 13
9	Nov 9	<i>IMMERSION WEEK – No Classes</i>	
10	Nov 16	Midterm Exam	Preparation for the Midterm
11	Nov 23	Options on Bonds and Interest Rates (L8)	CFA Reading 52 Hull 2014: Ch. 29
12	Nov 30	Basics of Forwards & Futures (L9)	CFA Reading 48 & 49 Hull 2014: Ch. 2
13	Dec 7	Valuation of Forwards & Futures (L10)	CFA Reading 48 & 49 Hull 2014: Ch. 5
14	Dec 14	Forwards & Futures on Financial Assets (L11)	CFA Reading 52 Hull 2014: Ch. 6
15	Dec 21	Basics of Swaps (L12)	CFA Reading 51 Hull 2014: Ch. 7
16	Dec 28	Valuation and Use of Swaps (L13)	CFA Reading 51 Hull 2014: Ch. 7
17	Exam Week		
18	Exam Week		

III. REQUIREMENTS (Requirements of course study and class discipline)

Students must come adequately prepared for class. It is vital that you spend time prior to class to prepare the relevant material.

The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work, is unacceptable to the University. Where a clear violation has occurred, however, the Instructor may disqualify the student's work as unacceptable and assign a failing mark on the exam. While it is perfectly OK to prepare for exams in groups, the actual tests are to be individually attempted.

There will be no make-up exams. If a student misses a midterm exam for a satisfactory reason (e.g., medical emergency) will have the final exam count for 70% of the grade.

IV. TEACHING APPROACH

Basic concepts and theories will be delivered in a lecture format, but emphasis will be placed on applications via extensive discussions of lecture materials and problem solving.

Class participation grade will be based both on attendance and constructive participation. You are expected to participate in class discussions and you will be graded on your contribution to the classroom learning environment.

V. COURSE MATERIALS

1. Required Materials and/or Readings

Reading: *CFA Program Curriculum: Derivatives – Level I and II*

2. Recommended Materials and/or Readings

✓ *Options, Futures and Other Derivatives* by John C. Hull (9th edition, 2014)

VI. ASSESSMENT

Students' final grade will consist of the following parts:

1. Post-class work (assignments): 20%
2. Participation and attendance: 10%
3. Midterm exam: 30%
4. Final exam: 40%