SYLLABUS

Hashemite University College of Business Administration Department of Banking Finance Derivatives securities Markets, FIN413 Credits 3, Fall Semester 2018/2019

Instructor: Prof. Samer AL-Rjoub

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<u>Class Time & Room:</u> UT: 10:30 - 11:45pm; Room: ECON 213.

Students Hours: STTH: 10:30 - 11:0 am

<u>Course Objective</u>: This course provides students with the techniques, concepts and applications that involve financial derivatives securities. It includes analysis of various types of options and strategies of option trading, principles of trading commodities on future markets, speculation and hedging using derivative securities.

Methodology: This course is a combination of lecture, assignments, case discussion and exams. In this course students will be introduced to the derivatives market, how they work, and the size of Over the Counter market, then they will covering subjects related to mechanics of Futures and Forward markets, determination of Forward and Futures prices Securitization and the Credit Crisis of 2007, Mechanics of Options Markets properties of Stock Options , introduction to Binomial Trees , valuing Stock Options: The Black-Scholes-Merton Model, Options on Stock Indices and Currencies and Value at Risk. At the end of the course students will be able to values futures , forwards and options , using state-of-art valuation of Stock Options using The Black-Scholes-Merton Model and Value at Risk for heding and risk management. Students are expected to read the assigned chapter(s) before the class meeting. Each student is strongly encouraged to spend an adequate amount of time and effort on the suggested problems as they are essential to an understanding of sound investment decisions.

<u>Attendance</u>: A regular student should attend all classes and lab sessions. A student may be drop from a course and denied entrance to its final examination

if his attendance violating the minimum limit determined by the University Council. This limit cannot be less than 75% of classes and lab sessions assigned to each course during semester. A student denied entrance to a final examination due to excessive absences will be considered to have failed that course.

Grading: The final grade for this course will be determined as follows:

<u>Item*</u>	<u>Weight</u>
Exam rating:	
Midterm exam	40
Homework, cases and attendance	20
Final exam	40

Homework, cases and attendance

- Live examples (Excel, using software and java applications) of how to price option and futures and forwards
- Excel examples of measuring VaR for valuing market risk required capital
- Solve selected end of chapter questions

Exam nature

- Multiple choice
- Problem solving and might be an essay

*No make-up tests without a written medical excuse or documentation of extraordinary circumstances.

<u>Textbook</u> and <u>supplementary Materials</u>:

Text: Fundamentals of Futures and Options Markets, Eighth Edition, ISBN-13: 978-0-13-299334-0; ISBN-10: 0-13-299334-1

Book material:

 $http://www-2.\ rotman.\ utoronto.\ ca/^hull/ifom/index.\ html\ .\ Where\ you\ can\ download\ Power\ Point\ (ppt)\ and\ related\ examples\ and\ materials$

Recommended: Bank of International Settlements, Risk Metrics.

Websites:

http://www.rotman.utoronto.ca/FacultyAndResearch/Faculty/FacultyBios/Hull.aspx,

http://www.msci.com/, http://tadawul.com.sa;

http://www.bis.org, http://www.msci.com

<u>Assignments</u>: The following Schedule is tentative and subject to adjustment as the class progresses.

Chapter Outline:

- 1. Introduction
- 2. Mechanics of Futures and Forward Markets
- 3. Determination of Forward and Futures Prices
- 4. Swaps
- 5. Securitization and the Credit Crisis of 2007
- 6. Mechanics of Options Markets
- 7. Properties of Stock Options
- 8. Introduction to Binomial Trees
- 9. Valuing Stock Options: The Black-Scholes-Merton Model
- 10. Options on Stock Indices and Currencies
- 11. Value at Risk