

# The Hebrew University of Jerusalem

Syllabus

## **Options and Contingent Claims - 55709**

Last update 31-08-2021

<u>HU Credits:</u> 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Business Administration

<u>Academic year:</u> 0

<u>Semester:</u> 1st Semester

Teaching Languages: Hebrew

<u>Campus:</u> Mt. Scopus

Course/Module Coordinator: Dr. Orit Milo

Coordinator Email: orit.milo@mail.huji.ac.il

Coordinator Office Hours: Thursday, on advance

#### <u>Teaching Staff:</u> Dr. Orit Milo

#### Course/Module description:

This course introduces students to the field of derivative securities, focusing in particular on futures, forwards and options.

### Course/Module aims:

The objectives of this course are to understand the role that can be played by these securities in the management of risk, and the general principles underlying the pricing of derivative securities.

Learning outcomes - On successful completion of this module, students should be able to:

Upon completion of the course, students should have basic understanding of what are derivatives, what are their used for, how to price them using different methodologies, such as binomial trees, Black Scholes, and Monte Carlo simulations.

Attendance requirements(%):

80%

*Teaching arrangement and method of instruction: Online lectures, exercises, case study* 

Course/Module Content: 1.Introduction to options 2.Binomial pricing (BOPM) 3.From discrete to continuous time - Black-Scholes-Merton (BSOPM) and comparing BSOPM to BOPM 4.Options strategies 5.Properties of Stock Options 6.Forwards and Futures 7.Brownian motion and BSOPM 8.Options' hedging and the Greeks 9.Dividends effect 10.As time permits 1.BS validity / the smile 2.Intro to structures 3.Hedging - corporate 4.Real Options intro

<u>Required Reading:</u> Lecture Notes

Additional Reading Material:

Hull J.C., 2012. Options, Futures, and Other Derivatives, 8th edition (NJ, US, Pearson)

Benninga S., 2008. Financial Modeling, 3rd edition (Cambridge, US, MIT Press)

Additional articles and references will be listed in the presentations

<u>Course/Module evaluation:</u> End of year written/oral examination 95 % Presentation 0 % Participation in Tutorials 0 % Project work 0 % Assignments 5 % Reports 0 % Research project 0 % Quizzes 0 % Other 0 % Class Attendance

Additional information:

*I welcome students to meet me during the office hours and class breaks to discuss any aspect of the course Final exam on campus or online* 

Final exam on campus or online