Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
EC 508	Differential Markets	2	3	0	0	3	6

Prerequisites	
Admission Requirements	
Language of Instruction	Turkish
Course Type	Elective
Course Level	Masters Degree
Objective	The course provides first with a matlab tutorial to enable then students to use computational methods in asset pricing.
Content	The course necessitates the use of matlab, the first part of the course will be devoted to learning matlab. The second part of the course initiates option pricing preliminaries, asset price model with the appropriate computational techniques.
References	Desmond J. Higham, Nicholas J. Higham MATLAB Guide 2nd Edition SIAM: Society for Industrial and Applied Mathematics; 2 edition (March 2005) Desmond J. Higham An Introduction to Financial Option Valuation: Mathematics, Stochastics and Computation Cambridge University Press; 1 edition (April 19, 2004)

Theory Topics

Week	Weekly Contents
1	Introduction to Matlab
2	Basic concepts-Variables-Matrices, vectors and series
3	Loops-Functions
4	Input-Output
5	Graphics
6	Linear Algebra
7	Solutions-Optimisation
8	Options
9	Option valuation preliminaries
10	Random variables-Computer simulation
11	Asset price movement
12	Asset price model I
13	Asset price model II