UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Vba Programming

2223-1-F5602M001-F5602M002M

Learning objectives

To acquire the skills for programming on the scientific software MATLAB, with a focus on Mathematical applications for Economics

Contents

MATLAB Programming

Detailed program

· The MATLAB IDE
· Data and variables types
· Plots generation
· MATLAB Programming: loops, logical operators, scripts and functions development
· Symbolic calculus and linear algebra on MATLAB
· Constrained and unconstrained optimization
· MATLAB programming for Economic modelling

Prerequisites

Basic calculus

Teaching methods

At the present state, lessons will take place in presence in a Computer Laboratory. Anyway, if needed, the teaching method will be modified in progress, according to the guidelines of the University.

Assessment methods

At the present state, the final written assessment will be carried out with a face-to-face exam at the university in a laboratory, with questions about MATLAB commands and quick programming exercises for the solution of mathematical problems.
The written test evaluates the formal correctness of the passages, the skills and knowledge acquired during the course.
After the end of the lessons, in November, an additional exam will take place. For the students who attended the lessons, part of this exam will consist in a project addressed during the last lessions.

Based on the guidelines provided by the University, if needed, the online exams will replace usual face-to-face exams and the assessment method will be adapted accordingly.

Textbooks and Reading Materials

In addition to the material provided during the course, the textbook and the suggested material are

Pocci, C., Rotundo G. and De Kok, R. (2017). MATLAB for Applications in Economics and Finance. Apogeo Education, Maggioli Editore

Altre risorse:

Houcque, D. (2005). Introduction to Matlab for engineering students. Northwestern University, 1-64.

Lynch, S. (2004). Dynamical systems with applications using MATLAB. Boston: Birkhäuser

Semester

First semester

Teaching language

English

Sustainable Development Goals