

UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Vba Programming

2324-1-F5602M001-F5602M002M

Learning objectives

The course aims at providing attendant students a number of useful standard programming skills using <u>MATLAB</u> software. Relevant topics cover some mathematical applications for economics.

Contents

Basic MATLAB programming

Detailed program

- 1. MATLAB IDE;
- 2. Data and variables types
- 3. Plotting mathematical objects
- 4. MATLAB Programming: loops, logical operators, scripts and functions development
- 5. Symbolic calculus and linear algebra with MATLAB
- 6. Constrained and unconstrained optimization
- 7. MATLAB programming for Economic modelling

Prerequisites

Basic knowledge of real analysis and linear algebra

Teaching methods

In-presence classes held in a Campus PC Lab

Assessment methods

A written and in-presence end of course assessment that will be held in a Campus PC Lab

This exam will evaluate correctness of the solved exercises as well as skills and knowledge acquired during the course.

Students might in addition hand a brief project that examines in more details one of the topics the course covers.

Textbooks and Reading Materials

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