



Computational Methods for Economics | ECP77584/ ECP77594/ ECP88234

Year	1
ECTS Credits	5
Contact Hours	10 hours of lectures and 5 hours of tutorials
Pre-Requisite	Nil
Semester	2
Module Leader and Lecturer	Professor Joseph Kopecky
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Module Outline:

This module provides students with an introduction to the use of computational methods for solving economic problems. Part of the module will focus on properly setting up an appropriate environment to best leverage modern methods while producing reproducible and reusable code. We will then study various numerical methods that are commonly used in economic modelling and apply them to specific problems.

Computational methods are used across every field of economics. This module serves as an introduction to some commonly used methods in Computational Economics. The primary aim is to equip students with the fundamentals needed for a wide range of applications. We will begin with some basics about programming fundamentals and setting up a python environment. We will then study some important numerical methods used in quantitative economics and put them to use simulating economic models.

Module Learning Outcomes:

Upon completing this module students should:

- be comfortable setting up an environment to solve complex economic models using modern methods;
- Produce reproducible code;
- Understand best practices as well as good habits for carrying out computational economic modelling;
- Be familiar with the concepts behind core numerical solution methods, and their use in common economic problems.

Assessment:

- 50% continuous assessment
- 50% project

Recommended Reading List:

<https://quantecon.org/>