Advanced Macroeconomics | ECP88051

Year	1
ECTS Credits	10
Contact Hours	2 hours of lecture and 1 hour tutorials
Pre-Requisite	Nil
Semester	1
Module Leader and Lecturer	Professor Michael Wycherley
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Module Outline:
An introduction to the core concepts and methodologies behind modern macroeconomic theory.

This course introduces the core concepts behind modern macroeconomic theory. We begin by introducing the process specifying a macroeconomic model, and the mathematical foundations of dynamic programming. The simple representative agent neoclassical growth model serves our first application of these methods to a specific economic context, and apply the tools to the classic equity risk premium puzzle. We then progressively add complexity to study these methods in a broader class of models, including: Real Business Cycle, and new New Keynesian. These foundations are at the core of most modern theoretical macroeconomic techniques. Though our focus is primarily on practical solution methods, we will also work to understand the empirical motivation behind these models (or lack thereof), and their applications to a wide variety of problems. The module concludes with an overview of heterogeneity, studying how to replace the representative agent with many individuals, and a brief overview of the numerical methods for solving these models computationally.

Module Learning Outcomes:
Students enrolled in this module will acquire comprehensive theoretical knowledge across various topics within time series econometrics. Additionally, they will develop the essential practical skills required to estimate models utilizing time series data independently.

- An understanding of the core concepts behind modern macroeconomic theory
- An ability to solve modern macroeconomic models, both analytically and numerically
- Familiarity with the mathematical foundations of dynamic programming under uncertainty

- The application of these techniques to a range of macroeconomic issues and an introduction to the literature on these issues

Assessment:
60% final exam, 40% mid-term test

Recommended Reading List:
Details will be provided.