

## Macroeconomics I

**ECTS**: 6

### Description du contenu de l'enseignement :

The course will cover the following topics.

- 1. Stylized facts about long run growth Growth decomposition and the Solow residual
- 2. The impact of growth on economic welfare
- 3. The Solow model and conditional economic convergence
- 4. The Ramsey model
- 5. Externalities and the AK growth model; the role for tax policy
- 6. R&D, innovation and growth (Romer (1990) model)
- 7. Growth in creation / destruction models (Aghion Howitt model)
- 8. Growth with directed technical change
- 9. Sustainable growth and energy transition analysis
- 10. Economic growth and declining population

### Compétence à acquérir :

The course will provide students with sound knowledge and understanding of the basis of modern macroeconomic theory regarding long run economic growth. After attending the classes, the students will master the fundamental models of modern macroeconomics in view of analysing the key issues and policies relative to long run economic growth.

# Mode de contrôle des connaissances :

60% of the final grade is based on a final exam (closed book exam).

40% is based on regular short quizzes.

Participation in class will be considered as bonus over this grade.

### Bibliographie, lectures recommandées :

Reference book: Aghion, Philippe and Howitt, Peter "The Economic of Growth", MIT Press 2008

- Daron Acemoglu, 2002. "Directed Technical Change." Review of Economic Studies 69(4): 781-809.
- Daron Acemoglu, Philippe Aghion, Leonardo Bursztyn, and David Hemous, 2012,"The Environment and Directed Technical Chang", American Economic Review 2012, 102(1): 131–166
- Charles I. Jones and Peter J. Klenow (2016) "Beyond GDP? Welfare across Countries and Time", American Economic Review, 2016, 106(9): 2426-2457
- Charles Jones (2022) "The end of economic growth? Unintended consequences of a declining population, *American Economic Review*, 2022, 112(11): 3489-3527