# Syllabus for Recursive Methods in Macroeconomics

**January 2020**

## General Information

- Instructor: Diego Ascarza-Mendoza (fiecsdiego13@gmail.com)
- Lecture times:

## 1 Course Overview

The instructor establishes the content of the course. In particular, in this course, tools will be provided to solve dynamic general equilibrium models in deterministic and stochastic environments. The topics require familiarity with real analysis, measure theory, and functional analysis. An introduction to these topics will be covered to catch up with what is needed to understand the main topics of this course successfully.

## 2 Objectives

1) Complement and extend theoretical and practical tools in Macroeconomics, and 2) Familiarize the student with the tools that are needed to explore recent working papers in Macroeconomics.

## 3 Content

1. Neoclassical Growth Model.
2. Introduction to Real Analysis.
3. Numerical Methods.
4. Dynamic Programming.
5. Introduction to Measure Theory.
6. Stochastic Dynamic Programming.
7. Introduction to Heterogeneous Agent Models.

## 4 References

The course will be based on Stokey, Nancy y Robert Lucas (1989): Recursive Methods in Economic Dynamics.