# ADVANCED MACROECONOMICS II

# ECONOMICS ECXXXX

# Department of Economics

# Western University

## January 2023

## General Information:

**Instructor:** Sergio Ocampo Diaz

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**Office hours:** By appointment

**Classroom meeting time(s) & location(s):** Monday 3pm-6pm SSC 4032

**Course website:** <https://owl.uwo.ca/portal>

**Graduate inquiries:** 519-661-3505 or Room 4074 SSC or [econ-gradcoordinator@uwo.ca](mailto:econ-gradcoordinator@uwo.ca)

## Course Description/Overview:

This course provided students with tools to solve dynamic general equilibrium models and take them to the data. Special attention will be given to heterogeneous agent models.

## Course Learning Outcomes:

Pose, code, solve and calibrate a heterogeneous agent model.

## Textbook(s):

The class won’t follow a textbook, instead each week we will focus on a different topic. Materials will be provided accordingly.

## Topics and Reading List:

Here is a list of tentative topics by week

1. Introduction and programming basics (version control and programming languages)
2. The neo-classical growth model I: How to code and speed up value function iteration
3. The neo-classical growth model II: Continuous choice variables
4. The neo-classical growth model III: The Endogenous Grid Method, shocks and expectations
5. Heterogeneity I - Bewley/Hugget/Aiyagari model
6. Heterogeneity III – Life cycle models with heterogeneity
7. Extensions: Occupational choice, steady state transitions
8. Income and wealth inequality
9. Computing moments (work with Baxter Robinson)
10. Continuous time heterogeneous agent Models
11. Additional topics if time allows

## Evaluation:

Weekly problem sets will give the grade for the course.

## Department Policies

### Policy on Academic Offences:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following web site:

<http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf>

All required papers may be subject to submission for textual similarity review to the commercial plagiarism‐detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between the University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Statement on Accessibility Services

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate Students with Disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are encouraged to register with Student Accessibility Services, a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both SAS and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature,

accessible campus transportation, learning strategy instruction, writing exams and

assistive technology instruction.

For more information, see <http://www.sdc.uwo.ca/ssd/>

Statement on Mental Health and Support Services  
Students under emotional/mental distress should visit <http://uwo.ca/health/mental_wellbeing/> for more information and a complete list of resources on how to obtain help.