Advanced Macroeconomics

Lecture: MW 1:30-3:20 SAV 264
Class Website: https://catalyst.uw.edu/workspace/oml/35295/
Check this site regularly as class-related information will appear often.

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Description
This course provides a more in depth look into contemporary macroeconomic concepts, theoretical and quantitative analysis. We will learn how empirical observations help us discern the validity of different models. We will also learn how empirical observations can be used to calibrate economic models, which is a necessary step for quantitative inquiry into important questions. The main goal is for you to gain a deeper understanding of how modern economic analysis is conducted. In the meantime, you will learn a number of widely used economic models and results. A secondary goal is to introduce you to the existing data sources.

Topics
Most of the course will be devoted to understanding growth and development. The question that remains unanswered is why some countries are poor while others are rich. We will study the Malthusian model, which is successful at explaining the experience in preindustrial time. We will then study two simple growth models aimed at capturing the growth experience of post-war period: The Solow growth model extended to include exogenous technical progress and the AK endogenous growth model. We will then move on to more difficult models of endogenous growth and also study the issue of the demographics and how it relates to growth. In the second part of the course, we will focus on public finance issues, i.e. study the effects on labor supply and welfare of different types of fiscal policy (taxes). We will also study a simple version of overlapping generations model and use it to talk about social security issues.

Reading Material
My lecture notes and notes you take in class. There is no official text for this class, as none exists that adequately presents the material I want to cover.

Prerequisites
2.0 in ECON 301; either MATH 126, MATH 129, or MATH 136; recommended: 3.0 in ECON 301

Your Grade
There will be 2 exams (30% of the final grade each) and several homework assignments (40% of the final grade each).

Administrative rules
• Checking your university e-mail/catalyst is a must. I will often communicate with you via e-mail.
• Homework Assignments. Homework assignments are due at the beginning of the lecture (on Wed). They will be posted on line at least 1 week in advance. Late homework submitted on the day assignment is due will be discounted at 20%. Homework submitted the next day or later will not be accepted.

You are strongly encouraged to work on homework assignments with your classmates and submit homework assignment for groups of 3. Homework assignments for this class are time consuming; you should start working on
them as early as possible and bring your questions to class before the homework is due. Note that my office hour is on Monday, so you should really make sure you have your questions answered by then. I do not answer hw questions by email. I require that homework assignments are typed (If you cannot type formulas, you can hand-write those).

- **Make up exams.** No make-up midterms will be given out. In case of a documented emergency, the weight of the missed midterm will be added to the final exam. There will be a make-up for the final exam only in the case of a documented emergency.

- **Missed class.** You are not required to attend. However, it is important to come to class if you want to understand all of the material covered. Although there will be lecture notes posted on my website, I recommend that you also take class notes as I will explain concepts in more detail. I further recommend to print the notes out prior to class, because I do not allow laptops in class.

- **No Laptops/electronic devices are allowed in class.** If you choose to attend the lecture, please pay attention and turn off all your electronic devices.

- **Class Participation.** I strongly encourage class participation. Please stop me if you are not following. Chances are you are not the only one. Voice your opinion. Question the validity of the theory I am teaching. Don’t take my words for granted.

**Preliminary Schedule**

- Malthusian Model
- Growth Accounting, Level Accounting, Cross-country income differences
- Solow Model
- AK Endogenous Growth Model (midterm)
- Expanding Variety Model (Romer 1987)
- Fertility and Growth: Unified growth theory (Galor-Weil 2000)
- Simple Neoclassical Growth model (NGM)
- Calibration
- Fiscal Policy in the NGM
- 2 period model, fiscal policy and Ricardian equivalence
- Overlapping Generations model and Social Security systems

**Important Dates**

- Exam 1: Wed, February 5
- Exam 2: Wed, March 12

**Holidays:**

- January 20, February 17