ECO 1201 – Tue/Thu 4:30 to 5:45pm – room Furst 317   **Dr. Eryk Wdowiak**
office hours – half-hour after each class and via email   economics@doviak.net
                                                                                              www.doviak.net

Macroeconomic Analysis
Yeshiva College – Fall 2024

Macroeconomics is the study of how economies perform over short and long periods of time. The more our economy produces, the more we can consume and the higher is our standard of living. Similarly, if an economy produces less output this year than last year, our consumption this year will likely be lower than last year and the number of unemployed workers will likely be higher than last year.

Macroeconomics also examines the impact that government policy can have on unemployment, aggregate output, interest rates and the prices that we pay for the goods and services that we consume. Among other topics, this course will examine the short-run trade-off between inflation and unemployment.

Also of importance is the time frame in which we are examining the economy's performance. Policies that increase consumption in the short-run may reduce investment, which reduces living standards in the long-run. So this course also emphasizes the difference between short-run and long-run performance, highlighting the trade-offs that policymakers face.

textbook and course materials

- N. Gregory Mankiw. *Macroeconomics*. MacMillan.
- E. Wdowiak. *Macro Analysis* (website). doviak.net/courses/macro-analysis
- D.W. Pearce (ed). *The MIT Dictionary of Modern Economics*.

The course revolves the *Lecture Notes* at the course website: doviak.net/courses/macro-analysis, but you need a textbook for depth. I recommend Mankiw's textbook because it covers the material in far greater depth than my *Lecture Notes* and because it's an excellent textbook.

So please acquire a copy of Mankiw's textbook. Any edition is fine. Used copies are cheaper.

Take your savings and buy a used copy of the *MIT Dictionary*. It's optional, but if you acquire a copy, you'll learn a lot about Economics just by reading it. If Economics is a language, then a dictionary will help you learn the language. And the *MIT Dictionary* is an excellent dictionary.

Finally, at the course website: doviak.net/courses/macro-analysis, you will find lecture notes, homeworks, announcements and any additional readings that I may assign. So please check the site regularly.

course requirements

During the semester, there will be two *short* midterm exams (20 percent each). The exams will require the student to write short essays on macroeconomic theory and to solve a few problems.

Homework will be assigned and the solutions will be reviewed in class. Studying the mathematics in the problem set will help you write essays on the exams. And participating in those discussions is one way to earn a good class participation grade (10 percent).

But the best way to learn macroeconomics is to do it. So for a final project (50 percent), I will ask you to write a macroeconomic analysis based on an *IMF Article IV Staff Report* on the country of your choice. Details and instructions below.

I encourage students to study together and help each other, but each student submits their own exam and each student submits their own analysis.

Students who wish to request disability-related accommodations should schedule an appointment with the Office of Disability Services by contacting Abigail Kelsen (akelsen@yu.edu) during the first week of classes.

HOMEWORK MACHINE

The Homework Machine, oh, the Homework Machine,
Most perfect contraption that's ever been seen.
Just put in your homework, then drop in a dime,
Snap on the switch, and in ten seconds' time,
Your homework comes out, quick and clean as can be.
Here it is -- "nine plus four?" and the answer is "three."
Three?
Oh me ...
I guess it's not as perfect
As I thought it would be.

from *A Light in the Attic*
by Shel Silverstein

A Light in the Attic © 1981 Evil Eye Music, Inc.
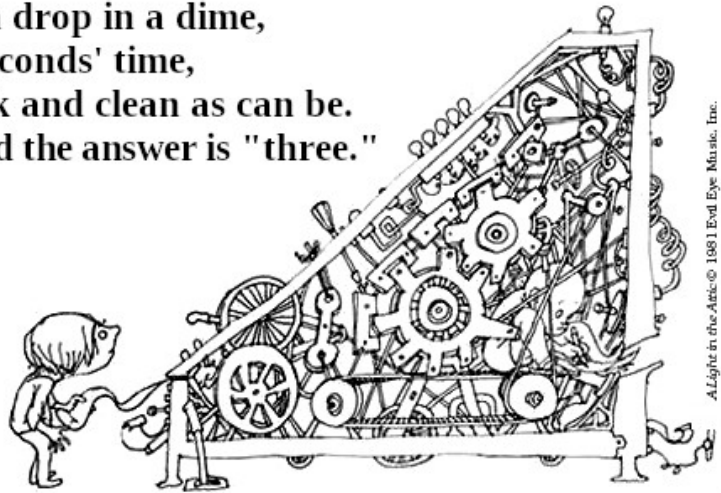
academic integrity

Below is the lead paragraph of Yeshiva University's Academic Integrity Policy:

"Yeshiva University strives to do much more than impart information and skills to undergraduate students. At the core of our educational goals include character development and preparation for graduate school and the workplace based on our Jewish tradition and values. Rabbi Moshe Feinstein zt"l ruled that if you get a job using a cheated grade, every dollar you earn from it is considered stolen. It is during college that students define who they are and who they will be after graduation. The academic integrity expectations and policies that follow are intended to help foster the traits of honesty and integrity that students will need throughout life."

artificial intelligence and academic integrity

The best reason not to use artificial intelligence in economic research is that it won't help you.

Generative language models (like ChatGPT) generate a fluent sequence of words similar to the sequences in their training data. They cannot solve problems that involve mathematical reasoning.

However, if *you* bring the mathematical reasoning that you learn in economics to a language model, the language model will help you write a fluent sequence of words with good mathematical reasoning. In other words, the critical ingredient is *you*. *You* must supply the good mathematical reasoning.

Accordingly, this course follows Yeshiva University's Academic Integrity Policy on Artificial Intelligence and allows students to use all forms of artificial intelligence without restriction. In following YU's policy, one must cite any content that a generative language model wrote. For example citations, YU's policy suggests the ones by the MLA and APA.

One must cite sources! So in cases where a student completely rewrote what a language model wrote, the student must still acknowledge use of a language model. For those cases, an acknowledgement with proper citation may be more appropriate than a standard citation.

Introduction to Macroeconomics

Lecture 1: Introduction and Math Review
- An introduction to economics and a review of mathematics.
  - Mankiw, chaps. 1 and 2

Lecture 2: the Production Process
- What marginal condition determines a profit-maximizing firm's optimal level of output?
- How does a change in the wage rate affect a cost-minimizing firm's employment of capital and labor?
- How do firms' short-run costs differ from their long-run costs?
- What are increasing, constant and decreasing returns to scale and how do they affect optimal firm size and the number of firms in an industry in the long run?
  - Wikipedia. "Production function."

Lecture 3: the Distribution and Allocation of National Income
- What is Gross Domestic Product?
- What are the income and expenditure approaches to calculating GDP?
- Why should the income and expenditure approaches to calculating GDP both yield the same sum?
  - Mankiw chap. 3

Economic Growth

Lecture 4: Economic Growth: the Solow Model
- How do saving and growth of the labor force affect the long-run level of output per worker?
- How does technological progress affect the growth rate of the long-run level of output per worker?
  - Mankiw chap. 8

Lecture 5: Economic Growth: Transition Dynamics
- How do government budget deficits affect the national saving rate?
- If higher saving rates lead to higher steady state levels of output per worker, then why is increasing saving rate so unpopular?
  - Mankiw chap. 9

Lecture 6: Economic Growth: Human Capital
- What other factors affect a country's level of economic development?
  - Mankiw chap. 10

skip lectures 7 and 8

Unemployment and Inflation in the Long Run

Lecture 9: Unemployment in the Long Run
- How is the unemployment rate measured?
- Why are there always some people who are unemployed?
- What is the discouraged worker effect? and How does it cause the unemployment rate to present a misleading measure of the true fraction of people who are unemployed?
  - Mankiw chap. 7

Lecture 10: Money and Inflation in the Long Run

- How does the Federal Reserve control the money supply?
- How does the Federal Reserve affect interest rates in the economy?
- What factors affect the optimal quantity of money that people would like to hold?
- What is the difference between the nominal interest rate and the real interest rate?
- What is inflation? and What causes inflation in the long run?
    - Mankiw chaps. 4 and 5

Economic Fluctuations

Lecture 11: Economic Fluctuations: the Goods Market

- Under what conditions would a difference between planned aggregate expenditure and aggregate output occur in the short run?
- How do the levels of taxation and government spending affect the equilibrium quantity of aggregate output produced in the short run?
    - Mankiw chap. 12

Lecture 12: Economic Fluctuations: the Goods and Money Markets

- Under what conditions can the real interest rate deviate from its long-run level in the short run?
- How do changes in the money supply affect equilibrium aggregate output in the short run?
    - Mankiw chap. 12

Lecture 13: Output and Inflation in the Short Run

- How does the aggregate demand curve fundamentally differ from a market supply curve?
- How do cost shocks increase the price level and reduce aggregate output (causing recession)?
    - Mankiw chap. 13

Lecture 14: the Short-Run Tradeoff between Inflation and Unemployment

- Under what conditions will contracting the money supply increase unemployment in the short run?
- Under what conditions will contracting money supply not have a short-run effect on unemployment?
    - Mankiw chap. 15

Macroeconomic Analysis

Conducting an macroeconomic analysis is your opportunity to learn macroeconomics by doing it. And the best country to write about is the one that you want to write about, so please choose a country of interest to you. I'll help you find the most recent *IMF Article IV Staff Report*. Your task is to perform the analysis.

Your analysis should discuss recent macroeconomic events, projections for future growth and the recent and projected courses of fiscal policy and monetary policy.

To complement your analysis, you should also include tables with: GDP growth rates, per capita GDP growth rates, population growth rates, long-term and short-term interest rates, consumer-price and producer- price inflation rates, fiscal deficits as pct. of GDP, current account deficits as pct. of GDP ... and all other variables relevant to the country's macroeconomic performance.

So that I can assist you, please submit a first draft by mid-semester. Then the final project will be due at the end of the semester.