

**ECO 2102: Microeconomics II**  
**Department of Economics, Ashoka University**

Spring Semester, 2024

*“Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand.”*

- Albert Einstein

**Course Instructor**

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TBA

**Course Description**

The course introduces strategic reasoning and its consequences for outcomes in markets and other economic, social, and political institutions. The formal toolkit economists use to study strategic reasoning is game theory. The course will, therefore, equip you with a thorough understanding of game theory and its two building blocks: normal and extensive form games. Along with this, the course will also demonstrate the power of this tool kit by showing how it can be used to answer substantive questions in the economic and socio-political domains. A portion of the course will be devoted to understanding strategic problems involving asymmetric information. For this, we will develop the language of Bayesian games. We will study the consequences of asymmetric information on the operation of markets and why it can result in inefficiencies and market failures. In other words, we will demonstrate why the message and scope of the First Welfare Theorem that you learned in Micro 1 may be severely constrained in the presence of asymmetric information (and, indeed, when any of the implicit and explicit assumptions of the competitive framework like the presence of complete markets or the absence of externalities are violated).

Two leading themes in asymmetric information are moral hazard and adverse selection, and we will discuss both.

The broad philosophy with which I will approach these topics is to demonstrate the methodology and aesthetics of Economics and the powerful tools that economists have developed to systematically study what, at first pass, may appear to be analytically intractable problems. Overall, our investigation into these matters will be as much analytical as it will be methodological and, at times, philosophical and historical.

## Pre-requisites

The formal pre-requisites of the course is Micro 1 and Maths+Stats for Economics. Beyond these formal requirements, I expect you to show the patience and perseverance that learning any new conceptual framework requires. This process will involve the same challenges that learning any new language involves. Just as no child, for example, acquires linguistic fluency in a day, so too, no neophyte economist can hope to master game theory in a day—or, for that matter, the night before the exam! This process will take time. Keep working hard, be consistent with the material and you will make progress.

## Textbooks

The main textbook for the course is “Strategy: An Introduction to Game Theory” by Joel Watson. Another book that we will draw on for certain topics is “Microeconomic Theory: Basic Principles and Extension” by Walter Nicholson and Christopher Snyder. Besides these, I will assign you certain sections from other books as well as a few journal articles to read. I will also provide you with detailed lecture slides.

## Course Grade

Your grade for the course will be based on the following:

1. **Class participation and intellectual investment in the course [15%]** – This will be a cumulative grade assessed over the course of the semester. It begins, of course, with regular attendance in classes but attendance, by itself, is (only necessary and) not sufficient to score well on this criterion. I expect you to engage with the material we cover in this course, both in the classroom and beyond (e.g., office hours). A lot of the material in the course will be motivated by practical exercises and by “playing games.” I expect you to participate enthusiastically in these.

You are also expected to participate actively in problem solving sessions, many of which will require you to work individually on problems. Above all, I expect you to be conscientious participants in the learning process, to excel individually and to help others whenever possible.

2. **Take home assignments [25%]** – You will get about 5 to 6 such assignments. You will typically get a couple of days, say the weekend, to complete them.
3. **Mid-term exam [30%]**
4. **Final exam [30%]**

I will also give you regular problem sets to solve. These will not factor in while determining your course grade but your ability to do well in the course will critically depend on the effort you put into independently solving these problem sets. The solutions for the problem sets will be discussed in the DS.

## **Interactions and Communication**

It is important that you make use of my (and the TA's) office hours to clear, in a timely manner, any doubts that you have about the course material. It is imperative that you keep pace with the class and do not let work pile up. Making efficient use of office hours is absolutely vital in this regard. I appreciate regular interactions and continuous communication with students. You are encouraged to speak frankly with me on any matter that impacts your ability to learn effectively.