

# SUMMER CHALLENGE SESSION 3: ECONOMICS

Boston University

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<b>Schedule:</b>	Mon – Fr 1:00 – 3:00 pm	<b>Room:</b>	CAS B36

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**Course Description:** This seminar examines the principles of economic behavior of individuals and firms. Through class experiments, you will become familiar with the theory of consumer choice and the strategic behavior of individuals and firms. By the end of the seminar, you will be able to use game theory to create a model of strategic decision-making and find the predicted outcome of a game.

We will start by observing that economics is not simply a study of money flows and learning about a world of questions economics can answer. Can insurance make people drive less safely? Should people receive subsidies to buy energy-efficient light bulbs? Why do autocracies sometimes use democratic institutions? The first two classes will cover big ideas that are foundational to economics: trade-offs, thinking at the margin, incentives, etc.

Next, we will delve into supply and demand, the forces that drive market behavior. Analyzing how factors like technology and consumer preferences affect market equilibrium will enable you to predict market outcomes and make informed decisions in different economic contexts. After showing the desirability of market equilibrium, we will explore the role of government policies such as taxes and minimum wage, and discuss the special case of international trade and protectionist policies.

Having established the desirability of market allocations in the absence of market failures, we will investigate the government's role in improving market outcomes when it does not operate efficiently. We will analyze market failures caused by externalities, public goods, and other factors. Through case studies like pollution abatement, we will assess the impact of different policies on efficiency and equity, considering the potential of government regulation to enhance social welfare.

All previous classes have assumed rational human behavior in accordance with economic principles. We will close the first week by discussing human heuristics and biases and introduce the field of behavioral economics. Then we turn to examine the firm side of economic processes. By studying how firms make decisions and focusing on costs, we will explore the behavior of firms in competitive markets and monopolistic settings.

The final two classes will concern game theory and its applications. We will study the basics and solve exercises demonstrating a game-theoretical approach to topics already covered, such as firm competition and output choice. We will close by talking about political economy and study several cases where economics can be useful to describe political processes such as elections.

**Class Policies:** Class and laboratory time are mandatory, and students are not permitted to miss class or lab. Students who miss class for any reason may be dismissed from the program. There is no refund or reduction in tuition or fees if you are dismissed from the program for any reason.

In case of illness, the student must contact the program assistant on-call and the program assistant will bring the student to Boston University's Student Health Services center. Students are not allowed to visit the Student Health Services center without a program assistant and cannot skip class without being evaluated by a medical professional.

**Final presentations:** By the end of the seminar, each student should have developed a comprehensive understanding of economic principles, enabling them to describe and analyze economic policies and events. Using the knowledge gained in class, students will split into groups of five and prepare a presentation discussing an article on a recent issue and propose an economic policy to solve it. Each presentation should include (1) a description of the problem and short background information (for example, relevant statistics), (2) an outline of the proposed policy, (3) economic theory related to the policy and what it predicts will happen, (4) potential pros and cons of the policy. A list of the articles to choose from will be provided by the end of the first week.

## Tentative Course Outline

#	Date	Lecture Topic	Content
1	Mon 7/22	What is economics?	Principles: trade-offs, thinking at the margin, incentives
2	Tue 7/23	Trade and market	Does trade make everyone better off? Forces of supply and demand
3	Wed 7/24	Government policies	Taxation/subsidies, price floor/ceiling, import/export restrictions
4	Th 7/25	Market failures	Externalities, public goods, tragedy of the commons
5	Fr 7/26	Human fallacies	Heuristics: anchoring, framing. Biases: present bias, loss aversion, gambler's fallacy
6	Mon 7/29	Firms	Cost of production. Market structures: competition
7	Tue 7/30	Firms	Firm entry/exit. Market structures: monopoly
8	Wed 7/31	Game theory	Introduction and Nash Equilibria
9	Th 8/1	Political economy	Economics of elections: median voter theorem, autocratic elections
10	Fr 8/2	Final presentations	-