ECON 1010

Introduction to Microeconomics

Course syllabus. Tulane University, Spring 2027.

Instructor: Sebastian Galiani

Meetings: Tuesdays and Thursdays, 75 minutes, 28 sessions from January 12 to April 27, 2027.

Format: Primarily in person, with possible Zoom sessions.

Credits: 3

Course description

Economics studies how societies organize and regulate their economies. Every society establishes rules of the game: legal rights, markets, taxes and subsidies, regulations, and obligations. These rules shape the opportunities and incentives individuals face, influencing what people do, how efficiently goods and services are produced, and how the benefits of economic activity are distributed.

This course examines these rules using the tools of microeconomics. It begins with scarcity, rational choice, equilibrium, and comparative statics, foundational concepts economists use to explain and predict behavior. It then explores how individuals cooperate through trade, markets, and legal institutions, as well as the barriers that can prevent mutually beneficial cooperation. Through the study of supply and demand, production costs, competition, market power, and strategic behavior, the course addresses a central question of economic analysis: What roles should markets and governments play in organizing economic activity? It examines the classical arguments for free markets, modern critiques of market outcomes (externalities, public goods, and imperfect information), and the problems of government action that public choice studies.

By developing an economic framework for understanding the world, the course equips students to make more informed decisions in their professional and civic lives. It also helps them critically evaluate public policy debates, distinguish empirical questions from ethical judgments, and consider the trade-offs involved in economic and political decisions.

Texts

Main texts:

- **CT:** Tyler Cowen and Alex Tabarrok, *Modern Principles of Economics*, 6th edition, Worth Publishers, 2024. The volume *Modern Principles: Microeconomics*, 6th edition, has the same chapter numbers.

- **GS:** Sebastian Galiani and Raul A. Sosa, *AI at Your Side: The Student's Guide to Smarter Learning*, Oxford University Press, 2027. Four lectures assign readings from GS, and its methods can be used with every topic in the course.

Supplementary texts:

- **Phelps:** Edmund S. Phelps, *Political Economy: An Introductory Text*, W. W. Norton, 1985.
- **AA:** Armen A. Alchian and William R. Allen, *Exchange and Production: Competition, Coordination, and Control*, 3rd edition, Wadsworth, 1983.

Goals

The course has three main goals:

- **Think like an economist.** Understand the core concepts of scarcity, rational choice, equilibrium, and comparative statics, and learn to apply them to a wide range of microeconomic situations.
- **Develop critical thinking skills.** Use economic reasoning to analyze problems, evaluate arguments, and question assumptions. In the age of AI, the ability to think independently and critically is more important than ever.
- **Use AI effectively and responsibly.** Learn to use AI as a tool to enhance productivity, deepen understanding, and support problem-solving, without outsourcing your own thinking or judgment.

How to use AI in this course

Four lectures teach you how to work with AI. Lectures 7, 8, and 13 cover the Introduction and Chapters 1 to 3 of GS, on using AI as a learning partner and on using it to find ideas, review the literature, and write. Lecture 26 adds parts of Chapters 4 and 7, on working through mathematical and economic models with AI.

After Lectures 7 and 8, AI can be a useful study partner for every topic in the course, including the earlier ones. Read the assigned chapters and work through them on your own first. Then AI can help you test what you understood. Explain a model back to it and ask what you missed, have it quiz you, have it check your work step by step, or change one assumption and ask what happens to the result. Do not ask it to do the thinking for you. GS calls this principle "augmentation, not replacement." It applies to every use of AI in the course, including the classic papers and the final essay.

Evaluation

The course grade consists of five components, totaling 100 points:

- Two midterm exams: 20 points each (40 points total).
- Final exam: 20 points.
- Final essay developed with the assistance of AI: 20 points.
- Five in-class quizzes based on classic economics papers: 2 points each (10 points total).
- Five in-class quizzes on CT exercises assigned during the semester: 2 points each (10 points total).

Midterm exams. Two in-class, multiple-choice exams. The first midterm takes place on Tuesday, March 30, and covers Lectures 1 to 19. The second takes place on Tuesday, April 27, the last day of class, and covers Lectures 20 to 26.

Final exam. A comprehensive multiple-choice exam covering the entire course. It takes place during the final examination period, May 1 to 6. The Registrar will determine the exact date.

Classic papers. Students will study five summaries of classic papers in economics, written by the professor for a general audience. They belong to the series *AI at Your Side: Reading Classic Papers in Economics*, a companion to GS. Each summary explains the question the paper asked and how the author answered it, suggests ways to work through the paper with AI, and ends with exercises. Students should read each summary on their own first. AI can then help them check their reading. There will be one in-class quiz per reading, worth 2 points, for a total of 10 points.

The summaries cover these papers, each paired with a related lecture:

- F. A. Hayek, “The Use of Knowledge in Society,” *American Economic Review* 35(4), 1945, pp. 519–530. Lecture 11, The price system.
- R. H. Coase, “The Problem of Social Cost,” *Journal of Law and Economics* 3, 1960, pp. 1–44. Lecture 15, Externalities.
- Sherwin Rosen, “The Economics of Superstars,” *American Economic Review* 71(5), 1981, pp. 845–858. Lecture 21, Networks, platforms, and free goods.
- Michael Grossman, “On the Concept of Health Capital and the Demand for Health,” *Journal of Political Economy* 80(2), 1972, pp. 223–255. Lecture 22, Labor markets.
- Gary S. Becker, “A Theory of the Allocation of Time,” *Economic Journal* 75(299), 1965, pp. 493–517. Lecture 26, Solving models with AI.

Exercise quizzes. Five in-class quizzes on exercises from CT assigned during the semester, worth 2 points each, for a total of 10 points.

Final essay with AI. Students will write an essay on a topic related to the material covered in the course. The purpose of this assignment is to learn how to use AI as a research assistant without delegating independent thinking and judgment to it.

Students must use AI throughout the research process. They will begin by exploring possible topics (GS 1) and conducting a literature review with AI (GS 2) to identify what is already known, what questions have been addressed, and what remains open. They must then select a specific topic, explaining how they arrived at their choice and how AI contributed to the process.

Students must write the first draft of the essay themselves. They may use AI to outline the essay and plan its paragraphs and, once the draft is written, to help revise, edit, and improve it (GS 3), but the arguments, analysis, and conclusions must remain their own.

The essay is due Thursday, April 29. Students must submit by email both the final essay and the complete log of their interactions with AI, documenting the research, topic selection, and writing process. The log has two parts. The first is the full transcript of every conversation. The second is a provenance trail like the one in GS 3.4 (Table 3.1). For each section of the essay, it records the task given to AI, a summary of what AI returned, and what the student kept, changed, and verified. The grade will reflect both the quality of the final essay and the process through which it was developed, including how effectively and critically the student used AI.

Schedule

Session	Date	Lecture	Topic	Readings
1	Tue Jan 12	1	The rules of the game: what is economics?	CT 1; Phelps 1
2	Thu Jan 14	2	Trade and comparative advantage	CT 2; Phelps 4
3	Tue Jan 19	3	Rational choice and demand	CT 3, 25; Phelps 2; AA 2
4	Thu Jan 21	4	Economic equilibrium: expectations and games	Phelps 3
5	Tue Jan 26	5	Supply and market equilibrium	CT 3, 4; Phelps 3; AA 4
6	Thu Jan 28	6	Efficiency and the obstacles to cooperation	CT 4; Phelps 5
7	Tue Feb 2	7	Learning with AI	GS Introduction
8	Thu Feb 4	8	Ideas and literature review with AI	GS 1, 2
	Tue Feb 9		*Mardi Gras: no class*	
9	Thu Feb 11	9	Elasticity	CT 5
10	Tue Feb 16	10	Taxes and subsidies	CT 6; Phelps 13
11	Thu Feb 18	11	The price system: signals, speculation, and prediction	CT 7; AA 5
12	Tue Feb 23	12	Price ceilings and floors	CT 8; Phelps 11
13	Thu Feb 25	13	Writing with AI	GS 3
14	Tue Mar 2	14	International trade	CT 9; Phelps 4 appendix
15	Thu Mar 4	15	Externalities	CT 10
16	Tue Mar 9	16	Costs and profit maximization under competition	CT 11; AA 10
17	Thu Mar 11	17	Competition and the invisible hand	CT 12; Phelps 7, 10
18	Tue Mar 16	18	Monopoly	CT 13; AA 11; Phelps 12
19	Thu Mar 18	19	Price discrimination and pricing strategy	CT 14
	Mar 20 to 28		*Spring break: no class*	
20	**Tue Mar 30**		**Midterm exam 1**	**Lectures 1 to 19**
21	Thu Apr 1	20	Oligopoly and game theory	CT 15; AA 12
22	Tue Apr 6	21	Networks, platforms, and free goods	CT 16
23	Thu Apr 8	22	Labor markets	CT 18; AA 14, 15; Phelps 16
24	Tue Apr 13	23	Public goods and the tragedy of the commons	CT 19; Phelps 5
25	Thu Apr 15	24	Political economy and public choice	CT 20; Phelps 8, 9
26	Tue Apr 20	25	Incentives and asymmetric information	CT 22, 24; AA 9
27	Thu Apr 22	26	Solving models with AI: consumers, firms, and markets	GS 4, 7
28	**Tue Apr 27**		**Midterm exam 2**	**Lectures 20 to 26**
	May 1 to 6		**Final exam**	**Lectures 1 to 26**

Lectures

Lecture 1. The rules of the game: what is economics? Tue Jan 12

- Economics and the rules of the game: scarcity, incentives, and institutions.
- Opportunity cost.
- A social economy: the three questions of every economy.
- The market and the state: from Adam Smith to the modern view.

Read:

CT 1, *The Big Ideas*;

Phelps 1, *The Rules of the Game*.

Lecture 2. Trade and comparative advantage Thu Jan 14

- The gains from exchange.
- Specialization and comparative advantage: who should make what.
- The production possibilities frontier.
- Money and property rights.

Read:

CT 2, *The Power of Trade and Comparative Advantage*;

Phelps 4, *The Gains from Cooperation*.

Lecture 3. Rational choice and demand Tue Jan 19

- Rational choice: its assumptions, and what psychology adds.
- Economic models: refutable propositions.
- Consumer choice: the budget constraint, indifference curves, and the best bundle.
- The demand curve: income and substitution effects, and consumer surplus.
- What shifts the demand curve.

Read:

CT 3, *Supply and Demand*, sections *The Demand Curve for Oil* to *What Shifts the Demand Curve?*;

CT 25, *Consumer Choice*;

Phelps 2, *Rational Choice and Individual Gain*;

AA 2, *Consumer Demand*.

Lecture 4. Economic equilibrium: expectations and games **Thu Jan 21**

- Economic order: equilibrium means correct expectations.
- Disequilibrium, and equilibrium with chance.
- Games of strategy: each player's best move depends on what the player expects the others to do.
- Coordination games: conventions and property rights.

Read:

Phelps 3, *Economic Equilibrium and the Theory of Supply and Demand*, sections *The Concept of Equilibrium* and *Economic Equilibrium in a Society* (pages 58 to 69).

Lecture 5. Supply and market equilibrium **Tue Jan 26**

- Supply: how a firm's costs determine its supply curve, and producer surplus.
- What shifts the supply curve.
- Market equilibrium: surpluses, shortages, and comparative statics.
- Equilibrium in two related markets, and with uncertain demand.

Read:

Phelps 3, section *The "Market Game": Equilibrium and Disequilibrium of Enterprises* (pages 69 to 79);

CT 3, *Supply and Demand*, sections *The Supply Curve for Oil* to *What Shifts the Supply Curve?*;

CT 4, *Equilibrium: How Supply and Demand Determine Prices*, sections *Equilibrium and the Adjustment Process*, *Who Competes with Whom?* and *Shifting Demand and Supply Curves*;

AA 4, *Market Prices as Social Coordinators*.

Lecture 6. Efficiency and the obstacles to cooperation **Thu Jan 28**

- Pareto efficiency: efficiency and equity.
- Total surplus: the competitive equilibrium maximizes the gains from trade. Evidence from the laboratory.
- Obstacles to cooperation: moral hazard, the prisoner's dilemma, and Nash equilibrium.
- Repeated games: how cooperation emerges.

Read:

CT 4, *Equilibrium: How Supply and Demand Determine Prices*, sections *A Free Market Maximizes Producer Plus Consumer Surplus (the Gains from Trade)* and *Does the Model Work? Evidence from the Laboratory*;

Phelps 5, *Obstacles to Efficient Cooperation*.

Lecture 7. Learning with AI Tue Feb 2

- What AI is, what it does well and badly, and how to set up a conversation so that it helps you think.
- AI as a learning partner: why explaining an idea to AI helps you learn it.
- Ways to study with AI: explain an idea and let AI correct you, compare different explanations, work up from easy to hard problems, and reflect on what you learned.
- Four principles: let AI strengthen your thinking without replacing it, decide when to rely on AI and when to work on your own, know its limits and biases, and be able to say which parts of your work are yours.
- AI on our side: what AI in education means for the kind of society we build.

Read:

GS, *Introduction: Rethinking Learning in the Age of AI*.

Lecture 8. Ideas and literature review with AI Thu Feb 4

- Finding a research question with AI: generating ideas, developing them, and refining them with feedback.
- Why AI often sounds agreeable and how to make it push back.
- From a research question to a literature review strategy.
- Finding, reading, and synthesizing papers and books with AI.
- Checking what AI tells you: go back to the original source, catch invented citations, and look for the disagreements that a tidy summary hides.

Read:

GS 1, *AI for Ideation and Creative Thinking*;

GS 2, *AI-Powered Research and Literature Review*.

Lecture 9. Elasticity Thu Feb 11

- Elasticity of demand: what determines it, how to calculate it, and total revenue.
- Elasticity of supply: what determines it and how to calculate it.
- Predictions with elasticities.
- Cross-price and income elasticities.

Read:

CT 5, *Elasticity and Its Applications*.

Lecture 10. Taxes and subsidies **Tue Feb 16**

- Tax incidence: the elasticities decide who pays a tax.
- Deadweight loss: the cost of a tax in lost gains from trade.
- Subsidies.
- Taxation and public expenditure: the classical view.

Read:

CT 6, *Taxes and Subsidies*;

Phelps 13, *Taxation and Public Expenditure: The Classical Vision*.

Lecture 11. The price system: signals, speculation, and prediction **Thu Feb 18**

- How markets link to one another: prices carry information that no single person has.
- Prices as signals and incentives.
- Arbitrage, speculation, and prediction markets.
- Information costs: inventories and waiting lines.

Read:

CT 7, *The Price System: Signals, Speculation, and Prediction*;

AA 5, *Information Costs and Achievement of Exchanges*.

Lecture 12. Price ceilings and floors **Tue Feb 23**

- Price ceilings: shortages, lower quality, search costs, and misallocation. Rent control.
- Price floors: surpluses and misallocation. The minimum wage.
- The classical objections to government interference in markets.

Read:

CT 8, *Price Ceilings and Floors*;

Phelps 11, *Market Interferences by the Government: The Classical Objections*.

Lecture 13. Writing with AI **Thu Feb 25**

- Outlining and organizing your ideas before you write.
- Drafting: writing each paragraph yourself, with AI helping you plan what each one must say.
- Revising and polishing: asking AI to read your draft as a supportive classmate, a skeptical professor, and a nonspecialist reader.
- Academic integrity: which uses of AI are fine, must be disclosed, or cross the line, and how to keep a record of your own use.

Read:

GS 3, *AI for Writing and Academic Productivity*.

Lecture 14. International trade Tue Mar 2

- Trade with supply and demand: who gains and who loses.
- Tariffs and quotas: the costs of protection.
- Trade and jobs, and the arguments against trade.
- Mutual gains from foreign trade and investment.

Read:

CT 9, *International Trade*;

Phelps 4, *Appendix: The Potential for Mutual Gain from Foreign Trade and Investment: The Open Economy*.

Lecture 15. Externalities Thu Mar 4

- Externalities: external costs and benefits make the market quantity inefficient.
- Pigouvian taxes and subsidies.
- Private solutions: the Coase theorem.
- Government solutions: command and control, tradable permits, and the carbon tax.

Read:

CT 10, *Externalities: When the Price Is Not Right*.

Lecture 16. Costs and profit maximization under competition Tue Mar 9

- The competitive firm: the firm takes the market price as given.
- Profit maximization: price equals marginal cost. Profit and average cost.
- Entry, exit, and the shutdown decision.
- Industry supply: increasing, constant, and decreasing cost industries.

Read:

CT 11, *Costs and Profit Maximization Under Competition*;

AA 10, *Price Takers' Supply and Price Response to Consumer Demand*.

Lecture 17. Competition and the invisible hand Thu Mar 11

- The invisible hand: competition minimizes the total cost of production.
- The balance of industries: profits and losses move resources. Creative destruction.
- The classical model of pure competition: efficiency in production and consumption.
- Law, organization, and markets: exchange among many people.

Read:

CT 12, *Competition and the Invisible Hand*;

Phelps 7, *Gains from Multilateral Exchange: Law, Organization, and Markets*;

Phelps 10, *The Classical Model of Pure Competition*.

Lecture 18. Monopoly **Tue Mar 16**

- Market power: marginal revenue equals marginal cost, and the markup.
- Costs and benefits of monopoly: deadweight loss and the incentive to innovate.
- Sources of market power.
- Regulation of monopoly and antitrust policy.

Read:

CT 13, *Monopoly*;

AA 11, *Price Searchers*;

Phelps 12, *Monopoly Power: The Classical Objections*.

Lecture 19. Price discrimination and pricing strategy **Thu Mar 18**

- Price discrimination: when it is possible and the role of arbitrage.
- Welfare: price discrimination and fixed costs.
- Tying, bundling, and versioning.

Read:

CT 14, *Price Discrimination and Pricing Strategy*.

Lecture 20. Oligopoly and game theory **Thu Apr 1**

- Cartels: the incentive to cheat as a prisoner's dilemma.
- Oligopoly: when cartels and oligopolies succeed.
- Government policy toward cartels and oligopolies.
- Business strategy and Nash equilibrium.

Read:

CT 15, *Oligopoly and Game Theory*;

AA 12, *Competition among the Few*.

Lecture 21. Networks, platforms, and free goods **Tue Apr 6**

- Network goods: why one or a few firms sell them.
- Competition for the market: switching costs, and why the best product may not win.
- Platforms: indirect network effects and free services.
- Antitrust and regulation of platforms.

Read:

CT 16, *Networks, Platforms, and the Economics of "Free Goods."*

Lecture 22. Labor markets Thu Apr 8

- Labor demand and labor supply: the marginal product of labor.
- Why wages differ: human capital and compensating differentials.
- Unions and discrimination.
- Incentive wages.

Read:

CT 18, *Labor Markets*;

AA 14, *Income from Personal Services*;

AA 15, *Labor-Market Institutions*;

Phelps 16, *Labor Markets and the Firm: "Incentive Wages" and Unemployment*.

Lecture 23. Public goods and the tragedy of the commons Tue Apr 13

- Four types of goods: excludable or not, rival or not.
- Public goods and the free-rider problem.
- Common resources: the tragedy of the commons and its solutions.

Read:

CT 19, *Public Goods and the Tragedy of the Commons*;

Phelps 5, *Obstacles to Efficient Cooperation*.

Lecture 24. Political economy and public choice Thu Apr 15

- Voters and special interests: rational ignorance.
- Diffuse costs and concentrated benefits.
- Voter myopia and political business cycles.
- Democracy: the median voter theorem.
- Rules for collective action: constitutional principles.

Read:

CT 20, *Political Economy and Public Choice*;

Phelps 8, *Problems of Public Choice*;

Phelps 9, *Justifying Collective Actions: Proposed Constitutional Principles*.

Lecture 25. Incentives and asymmetric information Tue Apr 20

- Pay for performance: piece rates, tournaments, and risk.
- Nonmonetary incentives and nudges. The corporation: ownership and control.
- Moral hazard: actions that the other party cannot see.
- Adverse selection and signaling: quality that the other party cannot see.

Read:

CT 22, *Managing Incentives*;

CT 24, *Asymmetric Information: Moral Hazard and Adverse Selection*;

AA 9, *Business Firms: Ownership, Control, and Profits*.

Lecture 26. Solving models with AI: consumers, firms, and markets **Thu Apr 22**

- Consumers: from a utility function to the demand curve and its elasticity.
- Firms and markets: competition, monopoly, and taxes.
- An application: Becker's model of the allocation of time.
- Working through a model with AI: solve it by hand first, then ask AI to check each step, explain what a result means, draw it as a graph, and show what breaks when you change an assumption.

Read:

GS 4, *AI in Mathematics and Statistics*, section *4.1 Algebra*;

GS 7, *AI in Economics*, the chapter introduction and section *7.2 Becker's Time Allocation: The Price of Everything You Do* (focus on how the student works through the model with AI; the equations can be skimmed).