

Microeconomics (Fall term)

Syllabus

Instructor's name: Kosmas Marinakis (module 1), Alla Friedman (module 2)

Class Times and Locations:

Lectures: TBA

Classes: by groups

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Office Location:

Shabolovka 26, 4231 (A.Friedman),

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Office Hours: TBA [Prior attending the office hours student is expected to prepare specific questions]

Section 1. General information about the course

The course examines the organization of markets from a microeconomic perspective, the principles of microeconomic policy and the role of government in allocating resources. Topics include: cost, perfect competition, monopoly, pricing with market power, monopolistic competition, oligopoly, game theory and factor markets, general equilibrium and efficiency, markets with asymmetric information, externalities and public goods.

The course represents a continuation of the first year course in Microeconomics but is offered as a separate course for exchange students. Module 1 of this course corresponds to Module III of the generic micro course, while module 2 corresponds to module IV.

Prerequisites: multivariable calculus; intermediate microeconomics (part 1) that includes such topics as consumer behavior, intertemporal choice, uncertainty, production and perfectly competitive markets of final goods and factors of production.

Section 2. Course goals, learning objectives, expected learning outcomes

The primary goal of the course is to nurture the economic way of thinking by exploring the

mechanics and the intuition of microeconomic theory.

By completing the course students will be able to understand basic real-world microeconomic problems and to develop critical thinking about economic matters.

Section 3. Course Outline

№	Topic/Focus/Activity	Week	Course format			Readings
			lecture	classes	self-study	
1	Introduction Cost for markets <ul style="list-style-type: none"> ▪ cost minimization ▪ cost curves 	1	2	1	3	P&R Ch.7, V. Chs. 20-21
2	Perfect competition <ul style="list-style-type: none"> ▪ profit maximization and firm's supply ▪ industry supply ▪ partial equilibrium 	1	2	1	3	P&R Ch.8, V. Chs. 16, 19
3	Market power <ul style="list-style-type: none"> ▪ monopoly ▪ sources of monopoly ▪ social cost of monopoly power ▪ monopsony ▪ limiting market power: the antitrust laws 	2-3	6	3	9	P&R Ch.10, V. Ch. 24
4	Pricing with market power <ul style="list-style-type: none"> ▪ price discrimination ▪ intertemporal price discrimination ▪ two-part tariff ▪ bundling ▪ advertising ▪ vertical integration 	3-4	6	3	9	P&R Ch.11 V. Ch.25
5	Monopolistic competition and oligopoly <ul style="list-style-type: none"> ▪ monopolistic competition ▪ simultaneous quantity competition (Cournot model) ▪ Stackelberg model ▪ price competition ▪ competition versus collusion ▪ cartels 	5-6	8	4	12	P&R Ch. 12 V. Ch.27

7	<p>Game theory</p> <ul style="list-style-type: none"> ▪ dominant strategies ▪ Nash equilibrium ▪ repeated games ▪ sequential games ▪ threats, commitments, and credibility ▪ entry deterrence ▪ auctions 	7-8	6	3	9	P&R Ch. 13 V. Chs.28
8	<p>Factor markets with market power</p> <ul style="list-style-type: none"> ▪ factor markets with monopoly power ▪ factor markets with monopsony power 	8	2	1	3	P&R Ch. 14 V. Ch.25
9	<p>General equilibrium and economic efficiency</p> <ul style="list-style-type: none"> ▪ efficiency in exchange economy ▪ market trade ▪ equilibrium and efficiency ▪ efficiency in production ▪ production and welfare theorems ▪ the gains from free trade: comparative advantage 	9-10	8	4	12	P&R Ch. 16 V. Ch. 28-30
10	<p>Externalities</p> <ul style="list-style-type: none"> ▪ externalities and efficiency loss ▪ ways of correcting market failure ▪ stock externalities ▪ externalities and property rights ▪ common property resources 	11-12	8	4	12	P&R Ch. 17 V. Ch. 34
11	<p>Public goods</p> <ul style="list-style-type: none"> ▪ public goods and efficiency ▪ private provision of the public good ▪ free riding ▪ government regulation 	13-14	8	4	12	P&R Ch. 17 V. Ch. 36

12	Asymmetric information <ul style="list-style-type: none"> ▪ quality uncertainty and the market for lemons ▪ market signaling ▪ screening ▪ hidden action and moral hazard 	15-16	8	4	12	P&R Ch. 17 V. Ch. 37
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Description of course methodology and forms of assessment to be used

While teaching the course the following teaching methods and forms of study and control are used:

- ⇒ lectures (4 hours a week);
- ⇒ classes (2 hours a week);
- ⇒ written home assignments;
- ⇒ self-study;
- ⇒ teachers' consultations [office hours];
- ⇒ written tests [mid-module test in module 1, end-module tests in modules 1 and 2]

Policies on late work

Late home assignments are not accepted.

Grading

Assessment is done separately for each module.

The grade for module 1 will be weighted as: homework average 15%, mid-module test 30%, end-module test 55%.

The grade for module 2 will be weighted as: homework average 20%, end-module test 80%.

Each module grade is converted to an integer in the 10-point scale.

The final grade for the course for exchange students will be the average over the module 1 and module 2 marks. The final result is rounded according to standard rules.

The final grade for the HSE students will be the average over all four modules marks [the module 3 and the module 4 marks of the first year and the module 1 and module 2 marks of the second year].

The final result is rounded according to standard rules.

Make-up policies and form of the make-up

A makeup exam in module 1 may be offered in the instructor's discretion only if a serious and officially certified excuse is presented to the study office and to the instructor as well.

There is no make-up exam in module 2.

If the final course mark is less than 4 out of 10 then there is one written retake exam (comission) in the end of January/beginning of February set in accordance with the HSE's [Internal Regulations](#). This exam covers all the material studied in modules 1-2 for exchange students and

the material studied in all the four modules for HSE students.

Section 4. Texts, readings and other informational resources

Required readings:

Varian Hal R., Intermediate Microeconomics: A Modern Approach, W. W. Norton & Company (any edition could be used but here references are provided to the Eighth Edition, 2009) [V]

Pindyck Robert S., Daniel L. Rubinfeld, Microeconomics, Pearson Series in Economics, 2013 (any edition could be used but here references are provided to the Eighth Edition, 2013) [P&R]

The instructors may also provide supplementary readings and notes.

Section 5. Examination/Evaluation

Sample home assignment questions

1. A price discriminating monopolist sells both in its home market and in the foreign market (the elasticity of demand being finite and different in each market). The monopolist's marginal cost schedule is rising and marginal revenue curves are declining on each market. How is the volume and value of exports affected by a subsidy per unit on home market sales?

2. Suppose that several students work over a group assignment. The class-teacher announced that each member of the group will get the same mark for this assignment based on the quality of the paper submitted. Comment on the statement: 'Under these rules the quality of the final paper will be below the optimal level for this group.'

3. The two people in a pure exchange economy have identical utility functions. Will they ever want to trade?

4. Consider the following sequential game played by a mobile phone company and a consumer. The company announces a price B for a mobile phone. Then given B , the consumer decides whether to buy or not. If the phone is not bought, the game ends and both obtain a payoff of zero. If the consumer buys the phone, the company then announces a price p per minute of telephone call made using that phone. Given the consumer has bought the phone and given the announced prices the consumer then chooses the number of telephone calls minutes x . The game then ends. The mobile phone company obtains payoff $B + px$ and the consumer gets payoff equal to $(x - 0.5x^2 - B - px)$.

(a) Find subgame perfect Nash equilibrium. Is the equilibrium outcome efficient? Explain.

(b) How would your answers to part (a) change if company announces B and p

simultaneously and then consumer decides whether to purchase the phone and if yes what is the optimal amount of phone calls.

Sample test questions

1. If the profits to producers from monopoly power (non-discriminating monopoly) could be redistributed to consumers, the social cost of monopoly power would be eliminated. Is this true or false? Explain.

2. Consider the following market. There is a single incumbent and a single potential entrant. Each firm has identical constant returns to scale technology and the product is undifferentiated. To enter the market the new firm would have to incur a one-time cost of $\$F > 0$. Resolve the following paradox: 'If the post-entry game is a Bertrand duopoly, then neither firm will make profits, whereas under Cournot duopoly they would. The incumbent, however, would prefer to be in a situation where the post-entry interaction is Bertrand rather than Cournot.'

3. Consider Cournot duopoly, where firm i best response function is given by $q_i = 0.5(A - c_i - q_j)$, $i = 1, 2; j = 1, 2$. Suppose firm 2 can use new technology that allows reducing its marginal cost by 20%. Analyze the effect of this technological innovation on individual outputs, industry output and individual profits.

4. Consider two groups of agents, A and B that live in the same town. Each group derives utility from consumption of aggregate commodity (C) and healthy environment (E): $u_A(C_A, E) = C_A E^{1/2}$ and $u_B(C_B, E) = C_B E^{1/2}$. Suppose that initial state of environment is $E_0 = 4$. Let the price of composite commodity be \$1. Suppose that each dollar spent on protection of environment increases E by 2 units. Group A has an income of \$42, and group B has an income of \$56.

(a) Assume that both groups choose their contribution to the protection of environment simultaneously and independently. Find equilibrium.

(b) Is the equilibrium allocation found in (a) Pareto efficient? Explain.

(c) Propose a way how the efficient allocation could be decentralised.

Section 6. Academic Integrity

The Higher School of Economics strictly adheres to the principle of academic integrity and honesty. Accordingly, in this course there will be a zero-tolerance policy toward academic dishonesty. This includes, but is not limited to, cheating, plagiarism (including failure to properly cite sources), fabricating citations or information, tampering with other students' work, and presenting a part of or the entirety of another person's work as your own. HSE uses an automated plagiarism-detection system to ensure the originality of students' work. Students who violate university rules on academic honesty will face disciplinary consequences, which, depending on the severity of the offense, may include having points deducted on a specific assignment, receiving a failing grade for the course, being expelled from the university, or other measures specified in HSE's [Internal Regulations](#).