



Class teacher: Andrew Vorchik

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Please, start topic of your letter with the acronym «HSE IntSt».]

1. Description and aims of the course

Key **aims** of the course are:

- to develop students' economic thinking;
- to form a general understanding of subjects and applications of economics;
- to introduce the principles and methods of economic analysis;
- to describe basic concepts and models of micro- and macroeconomics.

Students will acquire several **skills**. They will be able:

- to understand and model social phenomena:
 - to identify the key characteristics of social phenomena,
 - to make reasonable assumptions simplifying the modelling process,
 - to create models of social phenomena using mathematical methods,
 - to carry out justified predictions based on the model, to interpret results of the analysis;
- to apply the rationality concept to real-life cases;
- to notice and correct inefficiencies in production, distribution, consumption, and exchange.

The course is designed for high school graduates and graduates of non-economic bachelor programs. No prior knowledge of economics is required. Prerequisites are mathematical skills at the level of secondary school and basic understanding of derivatives (derivatives would be studied in the Mathematics course).

2. Format of teaching and grading

The course consists of 18 three-hour classes (4 *academic* hours each).

- Classes 1-9 and 10-17 are devoted to micro- and macroeconomics respectively. There is no strict division into lectures and seminars, classes will combine both formats. They will include the following activities:
 - explanation and discussion of the theory, problem solving;
 - *online-tests*.
- Self-study (time recommended to allocate to each topic is given in *astronomic* hours on the next page):
 - reading (textbooks will be uploaded to Canvas information system);
 - written *home assignments*.
- *Presentations* are done at the beginning of each class.
- Classes 10 and 18 are dedicated to *midterm* and *final exam* respectively.

Final grade = 15% × **Tests** + 20% × **HAs** + 15% × **Presentation** + 10% × **Midterm** + 40% × **Exam**

3. Structure of the course

Class #	Topic	Contents	Self-study (h)
1	Optimization and equilibrium	Map of social sciences. Introduction to economics and microeconomics. Definitions and key questions of economics. Subjects and goals of economics. Micro- and macroeconomics. GEM approach, principles of modelling, structure of a model. Principles of economic analysis. Rationality. Economic surplus, opportunity costs. Quantitative utility maximization. Derivatives recap, basics of optimization. Optimization and equilibrium. Introduction to game theory. Types of economic activity: production, distribution, exchange and consumption. <i>Course overview.</i>	1
2	Market demand and supply	Firms' costs and market supply curve. Market based pricing. Stability of equilibrium. Types of goods: ordinary and Giffen (price), normal and inferior (income), substitutes and complements (interdependent markets). Reserve prices, buyer and seller surpluses. Market efficiency and DWL. Governmental regulations. Free trade vs protectionism.	2
3	Consumer choice theory	Preferences and utility. Indifference curves. Budget constraint and consumer's optimum bundle. Income and substitution effects. Individual demand. Engel curves.	2
4	Decision-making in time and under risk	Individual supply of labour. Intertemporal choice model. Discounting: positive and normative. Risk vs. uncertainty. Expected utility theory, attitude towards risk. Diversification, risk pooling.	2
5	Behavioral economics	Definitions of rationality. Is our choice pre-determined? Cognitive biases (psychology). Bounded rationality and decision field theory. Dynamic inconsistency of intertemporal choice. Laboratory experiments. Framing effect (including gains vs. losses), priming effect, endowment effect. Prospect theory, fourfold pattern of risk attitudes. Sunk costs effect. Mental accounting and its marketing applications, consumption utility and transaction utility.	1
6	Theory of the firm	Production factors, factor income and factor expenditure. Firm's production function and returns to scale. Opportunity costs, accounting and economic profit, economic surplus. Firm's costs in the short run and in the long run. Costs minimization: isoquants and isocosts. Comparison of the consumer choice theory and theory of the firm. Industrialization: why England was the first? U-shaped cost curves. Allocation of firm's output between plants. Economies of scale and MES. Resources and firm's PPF. Productive efficiency. PPF of the economy and Pareto-improvements. Absolute and comparative advantage. Specialization, trade and Pareto-efficiency.	2
7	Entrepreneurship and financial modelling	Discussion: five types of work, industries and business functions, wants and compensation requirements, critical view on entrepreneurship, prerequisites for a startup, types of businesses, competition and synergy. Practical instruments: project development path, consumer journey, sales funnel. Finances of a startup: unit-economics, operating efficiency and break-even point. DPP. Store: mark-up and gross profit. ROI. Individual business: taxation of revenue vs. taxation of profit. Calculation of the rate of required return using WACC. Financial modelling in Excel.	1
8	Market structures	Types and characteristics of market structures. Perfect competition in SR and LR. Firm's and industry's supply. Monopolistic competition. Monopoly. Market power and allocative efficiency. Perfect price discrimination. Natural monopolies. Patent laws.	2
9	Economic role of the government. Preparation for the midterm	Why we need government: market failures. Social contract theory. Antitrust laws, licensing, insurance. Inequality and equity theory. Income redistribution: taxes, transfers and subsidies. Pension systems, life cycle hypothesis and Modigliani pyramid. Public goods and free-rider problem. Financing of the state budget: Laffer curve, seigniorage, government bonds. Structure of government revenues and expenditures (McConnell–Brue–Flynn). Barro-Ricardian equivalence: are government bonds a part of wealth? Anonymity of money and corruption. Lobbying. <i>Preparation for the midterm.</i>	1

10	Midterm. Market vs. Plan	Midterm. Market and organization as social institutions. Transaction costs. Market economy vs. command economy vs. mixed economy. Role of information in the economy. Leontief input-output model. Deficit and lines. Case: theatres in Moscow vs. theatres on Broadway. Capitalism: competition, technological progress and economic growth. Marxism: socio-economic formations and individual freedom.	5
11	Circular flows model	Differences between micro- and macroeconomics. Goals of macroeconomics. Link to microeconomics. Quesnay economic table. Structure of macroeconomic model, real and nominal variables. Circular flows model: macroeconomic agents, markets and variables. GDP components, national accounts system. Key macroeconomics identities. GDP vs. GNP. Economy in SR and LR: business-cycles and economic growth.	2
12	Keynesian cross	Linearity and regression analysis. Fundamental psychological law by J. M. Keynes. Keynesian cross model, goods market equilibrium and its stability. Fiscal policy and multiplier effect. Paradox of thrift.	2
13	Money and banking	Money vs. barter. Value of money. Functions of money. Money multiplier. Bank's balance sheet, money transmission mechanism. Liquidity preference theory and Walras' law. Equilibrium at the bonds market and money market. The central bank as a major player in the market of loanable funds. Monetary policy. Inflation phenomenon. Price indices. Inflation: types and consequences, costs and benefits. Quantitative theory of money. Fisher effect.	2
14	Unemployment and job market	Labour market equilibrium. How to earn a lot? Employment and unemployment. The criterion for unemployment. The relationship between unemployment rate, employment level and labor force participation rate. Universal basic income. Full employment and natural unemployment rate. Calculation of the natural unemployment rate. Consequences of unemployment. Hysteresis effect.	1
15	Business cycle	Okun's Law. Phillips curve: inflation and unemployment. Credit as the basis of growth and the cause of cycles. Loanable funds market: loans, bonds, stocks. What is a financial index? GDP vs. the index. Structure of the business cycle. Cross-industry and global business cycles. Macroeconomic template by Ray Dalio. Types of economic crises. Foreign exchange market and the crisis of 2014. Credit crisis (overproduction crisis). The Great Depression. Speculative crisis and financial bubbles. Tulip mania in Holland. Financial pyramids. World crisis of 2008. Land and real estate. Mortgage market credits, “The Big Short”. European debt crisis. Anna Karenina's principle	1
16	Economic growth	Subjects of development economics. Sources of growth and ways to accelerate it. Population growth and poverty. Trust and investment climate. Economic institutions and corruption. Calculation of the rate of economic growth. Rule of 70. Production function of the economy. Solow growth model. Domar model and AK model. Growth and happiness, view by Yuval Harari. Easterlin paradox. Relative income hypothesis.	2
17	Quarantine economics. Preparation for the exam	Causes and magnitude of the COVID-19 pandemic. Coronavirus vs. seasonal flu. Reproduction number, standard epidemiological models. Smoothing the epidemiological curve, two approaches to containing the epidemic. Effectiveness of various measures and their computer simulation (3b1b). Interconnectedness of industries. Optimization problem of the government. Governmental support of businesses. International relations during a pandemic: economics and politics. History and the current situation in the world. <i>Retrospective view on the course. Preparation for the final exam.</i>	1
18	Final exam. Lecture on the pre-selected topic		4
Total:			34

4. Presentations

Each student is asked to make a presentation of a topic in economics. A list of suggested topics is to be uploaded. The main goal is to make a solid introduction to the chosen topic and to unfold it fully to the audience. Thus, it is better to select a topic that you are really interested in.

One presentation should take no more than 10 minutes. After each presentation, a 5 minutes Q&A session is planned (it is not included in the main 10 minutes). All the presentation slides will be uploaded to Canvas for other students' use.

Mark is determined according to 5 criteria, each of which gives 2 points at most, so that the maximal grade possible is 10. Here is the list of criteria:

#	Criterion	Recommendations
1.	Motivation and examples	<ul style="list-style-type: none">• Explain why the topic is relevant and important, how the theory can be applied.• Give real-life examples.• Try to create an intrigue of the subject.
2.	Logical storyline	<ul style="list-style-type: none">• Make your story consistent and easily understandable.• Align parts of the presentation in a reasonable order.
3.	Depth of analysis	<ul style="list-style-type: none">• Do not oversimplify the material.• Use economic models and terms where relevant.
4.	Slides quality	<ul style="list-style-type: none">• Make readable and non-overloaded slides.• Please, do not open the entire slide at once, instead open it line by line to keep attention of the audience.• Number of slides is not limited.• It is recommended to numerate slides in order to facilitate asking questions.
5.	Presentation skills	<ul style="list-style-type: none">• Make listeners interested.• Audience involvement is possible but not mandatory.• Answer questions during the Q&A session.

5. Main academic literature

Microeconomics

- Varian H.R., *Intermediate microeconomics. A modern approach*, 8th edition, USA, W.W. Norton & Company, 2010

Macroeconomics

- Blanchard O., *Macroeconomics. A European perspective*, USA, Prentice Hall, 2010

6. Additional academic literature

Microeconomics

- Landsburg S.E., *Price Theory and Applications*, 7th edition, Mason, Thomson South-Western, 2008

Macroeconomics

- Mankiw N.G., *Macroeconomics*, 7th edition, New York, Worth Publishers, 2010

Micro- and macroeconomics

- McConnell C.R., Brue S.L., Flynn S.M., *Economics*, 18th edition, USA, McGraw-Hill/Irwin, 2008
- Begg D., Vernasca G., Fischer S., Dornbusch R., *Economics*, 11th edition, New York, McGraw-Hill Education (UK) Ltd, 2014

7. Internet resources

- mru.org/learn – economic courses by Marginal Revolution University
- en.wikipedia.org/wiki/Outline_of_economics – Wikipedia economic articles
- en.wikipedia.org/wiki/Portal:Business – Wikipedia business articles
- investopedia.com/dictionary – dictionary/handbook in economics and finance
- serious-science.org/themes/economics – video lectures by modern scientists
- coursera.org/browse/social-sciences/economics – courses of video lectures in economics
- khanacademy.org/economics-finance-domain – courses of video lectures in economics and finance

8. Popular scientific books

- Landsburg S.E., *The armchair economist: Economics and everyday life*
- Levitt S., Dubner S., *Freakonomics*
- Dixit A., Nalebuff B., *The art of strategy*
- Kahneman D., *Thinking, fast and slow*
- Thaler R., *Misbehaving: The making of behavioral economics*
- Thaler R., Sunstein C., *Nudge: Improving decisions about health, wealth and happiness*
- Kiyosaki R.T., *Rich dad, poor dad*
- Harari Y.N., *Sapiens. A brief history of humankind*
- Wheelan C., *Naked economics: Undressing the dismal science*