

**Federal State Autonomous Educational Institution of Higher Education "Moscow
Institute of Physics and Technology
(National Research University)"**

APPROVED
Vice Rector for Academic Affairs

A.A. Voronov

Work program of the course (training module)

course: Everyday Economic Philosophy: A Simple View on (Un)Complicated
Issues/Экономическая философия на каждый день: просто о (не)сложном

major: Applied Mathematics and Informatics

specialization: Advanced Methods of Modern Combinatorics/Продвинутые методы современной
комбинаторики
Phystech School of Applied Mathematics and Informatics
Educational and scientific center for the humanities and social sciences

term: 1

qualification: Master

Semester, form of interim assessment: 2 (spring) - Exam

Academic hours: 30 АН in total, including:

lectures: 30 АН.

seminars: 0 АН.

laboratory practical: 0 АН.

Independent work: 75 АН.

Exam preparation: 30 АН.

In total: 135 АН, credits in total: 3

Number of course papers, tasks: 2

Author of the program: A.V. Eliseev, candidate of economic sciences

The program was discussed at the Educational and scientific center for the humanities and social sciences 30.08.2024

Annotation

This course is will be to great extent connected to economics, but it will definitely not be economics itself. It will rather present a multidisciplinary view on the problems economics explores. Why in the name of the course 'un' is in parentheses? Do we doubt that economics is complicated? No more that rocket science, in fact. Moreover, it is surely complicated. In order to master it one must read loads of heavy textbooks and treatises. But, you will not have to do it, as, on the one hand, you are not professional economists, and, on the other hand, your teacher did it for you and is here to share with you. This course represents quite a simple view, for non-economist, on the most controversial issues of economics.

We will start with discussing methodological issues and here philosophy will be of use. We will see how economics is connected to philosophy, humanities and social sciences – like history, sociology, and political science. The most interesting for you might be its connection to mathematics and physics. We will raise and try to answer the question – do these all differential equations, we heavily use in economics, bring meaning into it. They definitely bring rigor, but do they add meaning? We will uncover how physics methodology made its way to economics. By chance, in fact.

Then we will focus on decision-making process, how it is modelled in economics and what problems we encounter here.

And, finally, we will discuss the most fascinating problems of economics which stay at the center of research for at least four centuries – like monopolization, social welfare, income inequality, market vs planning debate, macroeconomic indicators, instability, growth and development, as well as up-to-date problems of globalization and digital transformation.

Now you may have a silent or maybe even not silent question on your lips – What do I need all of this for? The problem is that we all live within economy, like it or not we all make economic decisions every given day. And if we do not have basic knowledge on economic issues we tend to make mistakes sometimes very serious and painful.

The second reason is that going online you might have noticed that every mouse potato there pretends to be an expert at how a country should be ruled and how economic development should be managed. Frequently these mouse potatoes look extremely silly in front of infinite audience with the expert opinions they express.

1. Study objective

Purpose of the course

The goal of this course is twofold. First, it is to provide students understanding of economic issues so that they do not fill Internet with economic crap, and, on the other hand, to provide students basic economic knowledge for making better decisions in their everyday life.

Tasks of the course

- To provide an overview of economic methodology and its connection to various other sciences;
- To introduce students into approaches to modelling decision-making process and the flaws and drawbacks they have;
- To introduce students into the most fascinating problems of economics and the way economists treat and mistreat them.

2. List of the planned results of the course (training module), correlated with the planned results of the mastering the educational program

Mastering the discipline is aimed at the formation of the following competencies:

| Code and the name of the competence | Competency indicators |
|--|--|
| UC-1 Use a systematic approach to critically analyze a problem, and develop an action plan | UC-1.1 Systematically analyze the problem situation, identify its components and the relations between them |
| | UC-1.2 Search for solutions by using available sources |
| | UC-1.3 Develop a step-by-step strategy for achieving a goal, foresee the result of each step, evaluate the overall impact on the planned activity and its participants |
| UC-5 Analyze and consider cultural diversity in | UC-5.1 Identify specific philosophical and scientific traditions in major world cultures |

| | |
|---|---|
| UC-5 Analyze and consider cultural diversity in intercultural interactions | UC-5.2 Define the theoretical and practical significance of cultural and linguistic factors within various interrelated philosophical and scientific traditions |
| UC-6 Determine priorities and ways to improve performance through self-assessment | UC-6.1 Achieve personal growth and professional development, determine priorities and ways to improve performance |
| | UC-6.2 Evaluate performance results in correlation with the set objectives and applied methods |

3. List of the planned results of the course (training module)

As a result of studying the course the student should:

know:

- Basic principles of economic methodology;
- Interconnection of economics and other sciences;
- Key approaches to modelling decision-making, their drawbacks and possible solutions;
- Main problems of economics, their development and approaches to solution.

be able to:

- Analyze social and economic phenomena;
- Evaluate economic decisions in their everyday life;
- Keep discussion on various issues of economics.

master:

- Basic tools of economic methodology;
- Basic tools for economic analysis;
- Have the ability to keep discussions on various economic issues;
- Basic tools of critical economic thinking.

4. Content of the course (training module), structured by topics (sections), indicating the number of allocated academic hours and types of training sessions

4.1. The sections of the course (training module) and the complexity of the types of training sessions

| № | Topic (section) of the course | Types of training sessions, including independent work | | | |
|---|--|--|----------|----------------------|------------------|
| | | Lectures | Seminars | Laboratory practical | Independent work |
| 1 | Science, philosophy, and economics | 2 | | | 5 |
| 2 | Economics' methodology over time: Where we are, how we got there, and what physics has to do with it | 2 | | | 5 |
| 3 | Decision making and cognitive distortions: Are we (ir)rational? | 2 | | | 5 |
| 4 | Does profit rule the world and is monopolization inevitable? | 2 | | | 5 |
| 5 | Capital vs labor battle | 2 | | | 5 |
| 6 | Philosophical issues of social welfare: Who is more important – Elon Musk or nameless homeless? | 2 | | | 5 |

| | | | | |
|------------------|--|-----------------------------|--|----|
| 7 | Market vs planning: Is mainstream economics about market economy? | 2 | | 5 |
| 8 | Macroeconomic indicators and rankings: Looks like someone is cheating | 2 | | 5 |
| 9 | How economy operates on macrolevel: From Keynes to present day | 2 | | 5 |
| 10 | Philosophy of money and usury: There is no money in philosophy | 2 | | 5 |
| 11 | Economic growth: How two Cambridges got into a fight and what capital has to do with it | 2 | | 5 |
| 12 | Macroeconomic instability of capitalism: Is it built-in? | 2 | | 5 |
| 13 | Global economy, (un)equal exchange, and economic development: What's wrong with 2024 Nobel Prize in economics? | 2 | | 5 |
| 14 | 'May you live in interesting times': Digital transformation and our future possibilities | 2 | | 5 |
| 15 | Heterodox economics: Different philosophy to think about economics | 2 | | 5 |
| AH in total | | 30 | | 75 |
| Exam preparation | | 30 AH. | | |
| Total complexity | | 135 AH., credits in total 3 | | |

4.2. Content of the course (training module), structured by topics (sections)

Semester: 2 (Spring)

1. Science, philosophy, and economics

What is philosophy about? Philosophy of science: Why is it important? Where is economics in scientific worldview? Philosophy, metaphysics, epistemology, and economics.

2. Economics' methodology over time: Where we are, how we got there, and what physics has to do with it

A brief history of economic analysis: From Ancient Greece to the 21st century. What should economics study: Definition of the subject – ancient times: household management; political economy: national wealth and human behavior; marginalism, Robbins and scarcity; scarcity and economic choice; economics imperialism. Economics' methodology: Are we doing right? Political economy vs economics: The role of social sciences. Economics and physics. Economics and mathematics.

3. Decision making and cognitive distortions: Are we (ir)rational?

Modeling decision making in economics. Assumptions on economic choice: What's wrong with them? What if choice assumptions do not hold?

4. Does profit rule the world and is monopolization in(evitable)?

Marginal productivity principle and profit maximization. Pure mathematics: How to raise profit? More pures. Pure competition vs pure monopoly: do they exist and is monopolization (in)evitable?

5. Capital vs labor battle

Is wage labor (un)just? Capital market: Gambling or pure calculus? Income distribution: Is income inequality (in)evitable?

6. Philosophical issues of social welfare: Who is more important – Elon Musk or nameless homeless?

Pareto-efficiency principle. Philosophy behind social welfare: Robert Nozick, Jeremy Bentham, John Nash, John Rawls. Inequality revisited: does redistribution help?

7. Market vs planning: Is mainstream economics about market economy?

Planning economy debate. Arrow-Debreu general equilibrium model: Is it about market economy? Is it that simple: Heterogeneity and complexity in economics.

8. Macroeconomic indicators and rankings: Looks like someone is cheating

National accounts: controversies and fallacies or intentional mislead? Macroeconomic rankings: One must never believe in their own propaganda. Why sanctions do not work?

9. How economy operates on macrolevel: From Keynes to present day

Self-regulating capitalism and theory of full employment. John Maynard Keynes: What if crisis comes and does not want to leave? Paul Samuelson: Crisis is just a special case. Milton Friedman: monetarist approach. Neokeynesians, postkeynesians, new keynesians, and modern monetary theory.

10. Philosophy of money and usury: There is no money in philosophy

The origins and evolution of money. Interest: Is it (un)just? Banking and usury: Islamic banking as just as a bank can be.

11. Economic growth: How two Cambridges got into a fight and what capital has to do with it

For more than 2,000 years our world was quite a boring place to live in. What changed then? Origins of growth and stylized facts. Two Cambridges debate. Robert Solow – the farther of growth theory. Convergence hypothesis: Let's look at some data. The main driver being exogenous, are you serious?

12. Macroeconomic instability of capitalism: Is it built-in?

Why do we regularly have crises or is it a permacrisis? Why do we loose our jobs? Why do prices rise? Predictions of the end of capitalism: Why did they never come true?

13. Global economy, (un)equal exchange, and economic development: What's wrong with 2024 Nobel Prize in economics?

To trade or not to trade, that is the question: Free trade and protectionism coexisting. Global economic order and unequal exchange. Determinants and paths of development. Institutions matter? What's wrong with Acemoglu, Johnson, and Robinson?

14. 'May you live in interesting times': Digital transformation and our future possibilities

Great transformations in human history. Why and how do economies transform? Digital transformation: "We can see computers everywhere except economic statistics"? Social order shift, resource owners' incentives, and our future possibilities.

15. Heterodox economics: Different philosophy to think about economics

What's wrong with mainstream? An overview of heterodox approaches: From Georgism to sharing.

5. Description of the material and technical facilities that are necessary for the implementation of the educational process of the course (training module)

The implementation of academic course requires an audience of appropriate capacity. While lecturing, a marker or slate, tables, charts are used. Technical training tools include computer with internet access and licensed software, multimedia projector.

6. List of the main and additional literature, that is necessary for the course (training module) mastering

Main literature

Рекомендуемая литература для самостоятельного изучения:

Яскевич, Я. С. Философия и методология социальных наук. Проблемы социальной коммуникации : учебное пособие для вузов / Я. С. Яскевич, В. Л. Васюков. — 2-е изд., перераб. и доп. — Москва : Издательство Юрайт, 2024. — 246 с. — (Высшее образование). — ISBN 978-5-534-06921-1. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: <https://urait.ru/bcode/540971> (дата обращения: 09.01.2025).

Иваницкий, В. Л. История экономических учений : учебник для вузов / В. Л. Иваницкий. — Москва : Издательство Юрайт, 2024. — 282 с. — (Высшее образование). — ISBN 978-5-534-00206-5. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: <https://urait.ru/bcode/537514> (дата обращения: 09.01.2025).

Гловели, Г. Д. Экономическая история : учебник для вузов / Г. Д. Гловели. — Москва : Издательство Юрайт, 2024. — 720 с. — (Высшее образование). — ISBN 978-5-9692-1005-9. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: <https://urait.ru/bcode/545134> (дата обращения: 09.01.2025).

Гобсон, Д. А. Экономика распределения. Наука социального прогресса / Д. А. Гобсон. — Москва : Издательство Юрайт, 2025. — 266 с. — (Антология мысли). — ISBN 978-5-534-11535-2. — Текст : электронный // Образовательная платформа Юрайт [сайт]. — URL: <https://urait.ru/bcode/566486> (дата обращения: 09.01.2025).

Additional literature

7. List of web resources that are necessary for the course (training module) mastering

<http://piketty.pse.ens.fr/en/capital21c2>

www.worldbank.org

www.ilo.org

www.nber.org

8. List of information technologies used for implementation of the educational process, including a list of software and information reference systems (if necessary)

Multimedia technology is used in lecture classes, including the demonstration of presentations.

9. Guidelines for students to master the course

While studying the student must independently replenish his knowledge and study the fundamental publications in subject area. Successful mastering of the course requires hard work of the student directly on lecture, and also independent work for assimilation of the passed material and the solution of the set of theoretical problems.

Assessment funds for course (training module)

major: Applied Mathematics and Informatics
specialization: Advanced Methods of Modern Combinatorics/Продвинутые методы современной комбинаторики
Phystech School of Applied Mathematics and Informatics
Educational and scientific center for the humanities and social sciences
term: 1
qualification: Master

Semester, form of interim assessment: 2 (spring) - Exam

Author: A.V. Eliseev, candidate of economic sciences

1. Competencies formed during the process of studying the course

| Code and the name of the competence | Competency indicators |
|--|--|
| UC-1 Use a systematic approach to critically analyze a problem, and develop an action plan | UC-1.1 Systematically analyze the problem situation, identify its components and the relations between them |
| | UC-1.2 Search for solutions by using available sources |
| | UC-1.3 Develop a step-by-step strategy for achieving a goal, foresee the result of each step, evaluate the overall impact on the planned activity and its participants |
| UC-5 Analyze and consider cultural diversity in intercultural interactions | UC-5.1 Identify specific philosophical and scientific traditions in major world cultures |
| | UC-5.2 Define the theoretical and practical significance of cultural and linguistic factors within various interrelated philosophical and scientific traditions |
| UC-6 Determine priorities and ways to improve performance through self-assessment | UC-6.1 Achieve personal growth and professional development, determine priorities and ways to improve performance |
| | UC-6.2 Evaluate performance results in correlation with the set objectives and applied methods |

2. Competency assessment indicators

As a result of studying the course the student should:

know:

Basic principles of economic methodology;
 Interconnection of economics and other sciences;
 Key approaches to modelling decision-making, their drawbacks and possible solutions;
 Main problems of economics, their development and approaches to solution.

be able to:

Analyze social and economic phenomena;
 Evaluate economic decisions in their everyday life;
 Keep discussion on various issues of economics.

master:

Basic tools of economic methodology;
 Basic tools for economic analysis;
 Have the ability to keep discussions on various economic issues;
 Basic tools of critical economic thinking.

3. List of typical control tasks used to evaluate knowledge and skills

While preparing a final essay students should submit sections of essay for evaluation.

By March, 1 - Topic and outline of an essay.

By April, 1 - Introduction and Methods sections

By April, 15 - Final draft of an essay

By April, 30 - Presentation

4. Evaluation criteria

The control on the course is based on a written essay performed at home. The essay should demonstrate student's ability to reflect on particular issue related to the course and should develop argument using some academic readings.

The topics of the essay may include (but are not limited to) the following problems.

1. Where is economics in scientific worldview?
2. The subject of economics: What should economists study?
3. Economics' methodology: Are we doing right?
4. Political economy vs economics: The role of social sciences.
5. Methodology: Economics and physics.
6. Methodology: Economics and mathematics.
7. Modeling decision making in economics: What's wrong with it?
8. Is monopolization (in)evitable?
9. Is wage labor (un)just?
10. Capital market: Gambling or pure calculus?
11. Is income inequality (in)evitable?
12. Welfare economics: Who is more important – Elon Musk or nameless homeless?
13. Market vs planning: Is mainstream economics about market economy?
14. Heterogeneity and complexity in economics.
15. National accounts: controversies and fallacies or intentional mislead? Macroeconomic rankings: Truth or propaganda?
16. Interest: Is it (un)just?
17. Banking and usury: Islamic banking.
18. A look at two Cambridges debate: Are you for UK or US?
19. Convergence hypothesis: Do countries really converge?
20. A sequence of crises or a permacrisis?
21. Predictions of the end of capitalism: Why did they never come true?
22. To trade or not to trade, that is the question: Why do free trade and protectionism coexist.
23. Global economic order and unequal exchange.
24. Digital transformation and our future possibilities.
25. What's wrong with mainstream economics?

An essay should be at least 10 pages long (Times, 12). An essay should have a standard IMRAD (Introduction, Methods, Results, and Discussion) structure:

1. Introduction: Problem or argument which student would like to develop.
2. Methods: Theory survey (brief discussion of theoretical approaches and a framework student will use to develop his / her argument).
3. Results: Research part in which student develops his argument giving proofs and examples.
4. Discussion in which student gives his concluding remarks.

An essay should be submitted electronically till April, 30.

Assessment "Excellent" (8-10): Has a clear argument, which addresses the topic and responds effectively to all aspects of the task. Fully satisfies all the requirements of the task; rare minor errors occur;

Assessment "Good" (5-7): Responds to most aspects of the topic with a clear, explicit argument. Covers the requirements of the task; may produce occasional errors.

Assessment "Satisfactory" (3-4): Generally addresses the task; the format may be inappropriate in places; display little evidence of (depending on the assignment): independent thought and critical judgment include a partial superficial coverage of the key issues, lack critical analysis, may make frequent errors.

Assessment "Fail" (0-2): Fails to demonstrate any appropriate knowledge on the topic discussed.

5. Methodological materials defining the procedures for the assessment of knowledge, skills, abilities and/or experience

Exam grade is granted on the basis of student's essay and in class discussion on the problem of an essay.