MGIMO University
School of Government and International Affairs

APPLIED ECONOMICS
(Micro- and macroeconomics)

Undergraduate Course Syllabus

Instructors
Prof. Mikhail I. Stolbov and Prof. Irina A. Strelets

This syllabus is designed in accordance with the MGIMO Educational Standard
for the Bachelor Program «International Business and Finance»
Authors _____ Prof. Mikhail I. Stolbov and Prof. Irina A. Strelets

Syllabus approved by the Department of Applied Economics on _____2022
Chair, Department of Applied Economics_____ Mikhail I. Stolbov

Director, MGIMO Library_____Marina Reshetnikova

PART 1:
INSTRUCTOR INFORMATION, COURSE DESCRIPTION
AND TEACHING METHODS

1.1 General information

- Full course title: **Applied Economics**
- Type of course: **Compulsory**
- Level of course **B.A. in Economics**
- Year of study: **2nd**
- Number of ECTS credits allocated: **5**
- Name of lecturers and office hours:
    1. Prof. Mikhail I. Stolbov, Ph.D. in Economics, Professor, Chair of the Department of Applied Economics (room 3041), office hours: upon agreement.
    2. Prof. Irina A. Strelets, Ph.D. in Economics, Professor, Department of Applied Economics (room 3043), office hours: upon agreement.

1.2 Course aims and learning outcomes

The main objective of the course is to introduce students to the principles, concepts, data, the most important economic laws and trends, and analytical frameworks. Applied Economics prepares students for further study and develops their skills to investigate real-world issues and public policy debates related to industrial organization, macroeconomic regulation and financial development. The course enables students to find, evaluate and use information from various sources, necessary to solve scientific and professional problems. The course forms the better understanding of the situation in Russia and other countries, containing elements of comparative analysis. It should also develop economic thinking and should be a major prerequisite for other economic and managerial disciplines.

Learning outcomes:

On successful completion of this course, students will be able to:

- apply economic principles and reasoning to solve scientific and professional problems;
- make informed judgments in regard to economic policy and its instruments in the field of industrial organization, macroeconomic regulation and financial development;
- demonstrate an understanding of the core concepts of applied economics;
- reveal special features of the Russian economic development in light of international comparisons;
- make use of economic models used in the course as well as interpret charts, graphs, and tables.

1.3 Course requirements and grading plan

Course requirements

Students will be required to attend not less than 90% of classes and be prepared for class discussions. Conscientious reading of the assigned materials is compulsory.

To a significant extent, this course goes beyond a conventional introductory level, since we assume our prospective students know well elementary algebra and are familiar with the basics of calculus. This enables to use graphical analysis extensively as well as to understand and solve problems and case studies involving optimization techniques, which are at the core of many economic concepts and models. Specific computer literacy (MS Excel) is also required. The course also builds on the concepts and notions introduced in the previously studied introductory courses in Micro- and Macroeconomics.

Grading plan

- **Class participation** – 10%

  Students are expected to attend all the lectures seminars and participate in class discussions; since the course is interactive, it is essential that students attend the seminars having read the materials for that day's class.

- **In-class tests and presentations** – 90%

  Students will write three tests during the semester. Dates of test classes are defined by the instructor and communicated to the students not later than a week before.

PART 2. COURSE CONTENT

2.1 Types of work

Types of work	Academic hours
Total	**210**
Total for lectures, seminars and written exam	**68**
Lectures	34
Seminars	34
Homework	**100**
Course assessment (Exam, tests, etc.)	**42**

2.2. Course contents

Lectures 1-2. Market Barriers

Definition of market barriers. Incumbent firms and entrants. Sunk costs and market barriers. Typology of market barriers: barriers to entry and exit, strategic and non-strategic barriers. Sources of non-strategic barriers. Formal models of market barriers: the Stackelberg-Dixit-Spence model and its possible outcomes. Firm demography: basic indicators and stylized facts about business demography in Russia and abroad. The relationship between firm demography indicators and market barriers.

Seminars 1-2. Market Barriers

1. Give the definition of market barriers and present their taxonomy.
2. Present graphically the Stackelberg-Dixit-Spence model and its possible outcomes.
3. Introduce the basic indicators of firm demography and specify their relationship with market barriers.

Sample questions for discussion at the seminar
1. Why should entrant firms care about market barriers to exit?
2. What are the risks run by the firms implementing market barriers?
3. Which sectors of the economy are particularly vulnerable to the implementation of strategic market barriers and why?
4. Can it be more reasonable for incumbent firms not to deter entrance by new firms? Under what conditions?

Obligatory reading:
1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017. Chapter 8.

Optional reading:
1. Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf Chapter 3.

Lectures 3-4. Formal Models of Oligopoly

Market concentration and market power. Structure-conduct-performance (SCP) paradigm. Measures of market concentration and market power: variance ratio of firms' market shares, entropy concentration

ratios, Bain ratio, Tobin's Q ratio. The Cornout and the Stackelberg models: premises and outcomes. Cartel (collusion), determinants of its stability. The Bertrand model: premises and outcomes. The Forchheimer model: market leader and competitive "belt". Market contestability: theoretical premises and empirical examples.

Seminars 3-4.
1. Give the definition of the SCP paradigm
2. Present the formulae for the variance ratio of firms' market shares, entropy concentration ratios, Bain ratio, Tobin's Q ratio.
3. Give the premises and outcomes of the Cournot, Stackelberg and Bertrand models.
4. Give the premises and outcomes of the contestable market structure.

Sample questions for discussion at the seminar
1. Which models of oligopolistic behavior are more realistic: those based on the quantity variable or on the price variable?
2. What is Tobin's Q ratio?
3. What is the Bertrand paradox?
4. What are the industries most prone to market contestability?

Obligatory reading:
1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017. Chapters 5-6.
Optional reading:
1. Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf Chapter 2.
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Lectures 5-7. The Macroeconomic Role of Financial Markets and Intermediaries
Definition and macroeconomic functions of financial markets and intermediaries. Financial depth: concept and indicators. Data sources on financial depth. The World Bank Global Financial Development Database. Long run trends in financial development: financial repression vs. financial liberalization. Financial structure: the Allen-Gale scale. The relationship between legal origin and financial structures of national economies. Financial inclusion: concept and indicators. Data sources on financial inclusion. Financial deepening and economic growth.

Seminars 5-7.
1. Give examples of financial depth indicators.
2. Specify the time periods when financial repression was a prevailing trend across the globe.
3. Explain the relationship between legal origin and financial development.
4. Explain the macroeconomic effects of financial development (channels and outcomes).

Sample questions for discussion at the seminar
1. Can financial depth indicators exceed the volume of national GDP?
2. Which indicators – those of financial depth or financial inclusion – are more representative? Why?
3. Can financial development exert an adverse impact on economic growth? If so, under what conditions?

Obligatory reading:
1. Mankiw N. Gregory. Macroeconomics, 10th ed., 2019. Chapters 4 and 19.

Optional reading:
  1. Nectarios Michail. Money, Credit, and Crises. Understanding the Modern Banking System, Springer, 2021. https://bibliocatalog.mgimo.ru:2133/book/10.1007/978-3-030-64384-3 Chapters 5-6.

Lectures 8-9. Financial Crises: Types, Mechanisms and Anti-crisis Policies

Financial possibilities frontier (FPF) model. Crisis typology: currency crises, sudden stops, debt crises, bank crises, crises in asset markets. Twin and triplet crises. Data sources on financial crises. Causes of financial crises. Stylized facts about financial crises. Bank runs. Shadow banking. Fire sales. Anti-crisis policies during the 2007-2009 global financial crisis and the COVID-19 pandemic. New approaches to financial stabilization. Quantitative easing (QE) policies in major advanced economies and their consequences.

Seminars 8-9.

  1. Give definitions for the main types of financial crises. Explain the emergence of twin and triplet crises.
  2. Causes of financial crises.
  3. Give definition of shadow banking and provide examples of this phenomenon.
  4. Describe the mix of QE policies in the USA, Euro area, the UK and Japan.

Sample questions for discussion at the seminar
  1. Which types of financial crises are particularly hazardous in terms of macroeconomic losses?
  2. Is there a role for psychological factors of financial crises? What is irrational exuberance?
  3. What are plausible adverse implications of QE policies for the advanced economies which implemented them? What about the rest of the world, e.g. emerging markets?

Obligatory reading:
    1. Mankiw N. Gregory. Macroeconomics, 10th ed., 2019. Chapter 19.

Optional reading:
  1. Nectarios Michail. Money, Credit, and Crises. Understanding the Modern Banking System, Springer, 2021. https://bibliocatalog.mgimo.ru:2133/book/10.1007/978-3-030-64384-3 Chapters 7-8, 11.

Lecture 10. Pure Monopoly and Market Power

Pure monopoly: definition, characteristics. Sources of market power (government restrictions on entry, structural characteristics, strategic behavior). Costs and benefits of market power. Market power and allocative inefficiency. X-Inefficiency. Rent seeking. Lerner index for a firm and for an industry.

Seminar 10. Pure Monopoly and Market Power
1. What is pure monopoly?
2. Market power and allocative inefficiency.
3. Lerner index.

Sample questions for discussion at the seminar
1. Define main characteristics of pure monopoly.
2. What is X-Inefficiency?
3. What is rent seeking?
4. What are Benefits of Monopoly ?

Obligatory reading:

    1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017. Chapter 2.4.

Optional reading:

    1.Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf Chapter 1.

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Lecture 11. Natural Monopoly

Natural monopoly: definition, examples. Concept of sub-additivity. Two cases of sub-additivity: the single product case, the multiproduct case. Regulatory choices for dealing with a natural monopoly. Price regulation: marginal cost pricing, average cost pricing, price cap regulation, two-part tariff, Ramsey-Boiteux pricing, peak pricing. Non-price regulation: the concept of franchise bidding, control over the quality of service, radical methods.

Seminar 11. Natural Monopoly

1. What is natural monopoly?
2. Regulatory choices for dealing with a natural monopoly. Price regulation.
3. Regulatory choices for dealing with a natural monopoly. Non-price regulation.

Sample questions for discussion at the seminar

1. Give some examples of natural monopolies.
2. Draw LAC and LMC for a case of natural monopoly.
3. Give Examples of Economies of scale, Economies of scope.
4. What is Peak pricing ?
5. What are advantages and disadvantages of price regulation?
6. Describe Competitive markets concept.
7. What are advantages and disadvantages of non-price regulation?

Obligatory reading:

    1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017. Chapter 18.2.

Optional reading:

    1.Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf Chapter 1.

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Lecture 12. Theory of Monopolistic Competition and Product Differentiation

Monopolistic competition: main characteristics. Pre-entry equilibrium, post-entry equilibrium. Product differentiation: definition, types, measurement. Horizontal product differentiation, vertical product differentiation, mixed product differentiation. Natural and strategic distinguishing characteristics of differentiated products and services. Sources of natural and strategic product differentiation. The Rothschild Index. Two types of economic models of product differentiation: representative consumer models, spatial or location models. The socially optimal amount of product differentiation.

Seminar 12. Theory of Monopolistic Competition and Product Differentiation

1.   Define and give examples of monopolistic competition.
2. Product differentiation: definition, types, measurement.
3. The socially optimal amount of product differentiation

1. Why is the firm's demand curve flatter than the total market demand curve in monopolistic competition?
2. Suppose a monopolistically competitive firm is making a profit in the short run. What will happen in the long run?
3. How might advertising increase economic well-being in a monopolistic competition?
4. What is the distinction between vertical and horizontal product differentiation?
5. What is the distinction between natural and strategic product differentiation?

Obligatory reading:
1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017. Chapter 12.

Optional reading:
1.Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf Chapter 3.

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Lecture 13. Product Differentiation: Spatial or Location models
Lancaster product characteristics model. Discontinuous demand function. Introducing a new brand in the Lancaster model. Hotelling location model. Assumptions of the model. Choice of location. Salop location model.

Seminar 13. Product Differentiation: Spatial or Location models
1. Representative consumer models and spatial or location models of product differentiation.
2. Introducing a new brand in the Lancaster's model.
3. Hotelling location model.
4. Salop location model.

Sample questions for discussion at the seminar
1. Explain the methodological difference between representative consumer models and spatial or location models of product differentiation
2. According to Lancaster product characteristics model, why might the demand functions for competing brands exhibit discontinuities with respect to small changes in the prices of each brand?
3. In the Salop model with endogenous locations and prices, explain why an increase in the number of competing suppliers (due to entry) might be associated with an increase in the equilibrium price for each competing brand.

Obligatory reading:
1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017. Chapter 12.

Optional reading:
1. Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf Chapter 3.

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Lectures 14-15. IS-LM Model
IS-LM Model: definition. IS (investment–saving) curve. Elasticity of the curve. Shifts of the IS curve**.** LM (liquidity-money) curve. Elasticity of the curve. Shifts of the IS curve**.** The intersection of the IS and LM.

IS-LM and AD-AS models. Monetary policy in the IS-LM model: expansionary monetary policy, contractionary monetary policy. Fiscal policy in the IS-LM model: expansionary fiscal policy, contractionary fiscal policy. Liquidity trap. Investment trap.

Seminars 14-15. IS-LM Model
1. IS (investment–saving) curve.
2. LM (liquidity-money) curve.
3. IS-LM Model.
4. Monetary policy in the IS-LM model.
5. Fiscal policy in the IS-LM model.
6. Liquidity and Investment traps.

Sample questions for discussion at the seminar
1. What defines the elasticity of the IS curve?
2. What defines the elasticity of the LM curve?
3. Describe some ways to help the economy come out of a liquidity trap.
4. Propose a mixed (monetary-fiscal) policy that achieves the following goal: increase Y while keeping r constant.
5. Show on the IS model the short-term consequences of the following activities:
a. The unfavorable situation on the oil market is forcing the state to cut back on large-scale investment projects.
b. In the context of the financial crisis, the government is taking measures to stimulate the real sector of the economy through taxation.

Obligatory reading:
   1. Mankiw N. Gregory. Macroeconomics, 10th ed., 2019. Chapters 12-13.

Optional reading:
   1. Nectarios Michail. Money, Credit, and Crises. Understanding the Modern Banking System, Springer, 2021. https://bibliocatalog.mgimo.ru:2133/book/10.1007/978-3-030-64384-3 Chapter 5.

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Lectures 16-17. IS-LM-BP Model

The Mundell–Fleming model: basic assumptions. BP (balance of payments) curve. IS-LM-BP Model: different cases of capital mobility.
IS-LM-BP model (perfect capital mobility). Fixed exchange rate: an expansionary monetary policy, an expansionary fiscal policy. Flexible exchange rate: an expansionary monetary policy, an expansionary fiscal policy.
IS-LM-BP model (Imperfect capital mobility). Fixed exchange rate: an expansionary monetary policy, an expansionary fiscal policy. Flexible exchange rate: an expansionary monetary policy, an expansionary fiscal policy.
Key conclusions.

Seminars 16-17. IS-LM-BP Model

1. Basic assumptions of the model.
2. BP (balance of payments) curve.
3. IS-LM-BP Model: different cases of capital mobility.

4. IS-LM-BP model (perfect capital mobility). Fixed exchange rate and Flexible exchange rate.
5. IS-LM-BP model (imperfect capital mobility). Fixed exchange rate and Flexible exchange rate.

Sample questions for discussion at the seminar
1. What does the Mundell-Fleming model show?
2. What is the basic difference between the IS-LM model and the Mundell-Fleming model?
3. What are assumptions of the Mundell-Fleming model?
4. Explain the idea of "smallness" of a country.
5. What does the BP curve show? What do points above the BP curve and below the BP curve mean?
6. In a floating exchange rate regime - to what extent does the effectiveness of fiscal policy depend on the degree of capital mobility?
7. Using the Mundell-Fleming model what will be the effects of the following: A reduction in money supply with fixed rates?
8. Using the Mundell-Fleming model what will be the effects of the following: a reduction in government spending with floating exchange rates?

Obligatory reading:
    1. Mankiw N. Gregory. Macroeconomics, 10th ed., 2019. Chapter 14.

Optional reading:
    1. Nectarios Michail. Money, Credit, and Crises. Understanding the Modern Banking System, Springer, 2021. https://bibliocatalog.mgimo.ru:2133/book/10.1007/978-3-030-64384-3 Chapters 5 and 8.

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2.3 Exam Questions
Sample Exam Questions (the list is given for illustrative purposes, as the exam may be conducted in writing and may be based on problem solving)
1. Market barriers: definition and typology. Examples of non-strategic and strategic barriers.
2. Stackelberg-Dixit-Spence model and its possible outcomes.
3. Firm demography: basic indicators and relationship with market barriers.
4. Measures of market concentration and market power.
5. Cornout and the Stackelberg models: premises and outcomes.
6. Cartel (collusion) and determinants of its stability.
7. Bertrand model: premises and outcome.
8. Contestable markets: premises and competitive outcomes in comparison with perfect competition and oligopoly. Empirical examples of contestability.
9. Financial depth: concept and indicators. Data sources on financial depth. The World Bank Global Financial Development Database.
10. Long run trends in financial development: financial repression vs. financial liberalization.
11. Financial structure: the Allen-Gale scale. The relationship between legal origin and financial structures of national economies.
12. Financial inclusion: concept and indicators. Data sources on financial inclusion.
13. Financial deepening and economic growth.
14. Financial possibilities frontier (FPF) model.
15. Crisis typology: currency crises, sudden stops, debt crises, bank crises, crises in asset markets. Twin and triplet crises. Data sources on financial crises.
16. Causes of financial crises.
17. Stylized facts about financial crises.
18. Shadow banking.

19. Bank runs and fire sales during financial crises.
20. Anti-crisis policies during the 2007-2009 global financial crisis and the COVID-19 pandemic.
21. Quantitative easing (QE) policies in major advanced economies and their consequences.
22. Pure monopoly. Sources. costs and benefits of market power.
23. Market power and allocative inefficiency. X-Inefficiency. Rent seeking. Lerner index for a firm and for an industry.
24. Natural monopoly: definition, examples. Concept of sub-additivity. Two cases of sub-additivity. Regulatory choices for dealing with a natural monopoly.
25. Price regulation: marginal cost pricing, average cost pricing, price cap regulation, two-part tariff, Ramsey-Boiteux pricing, peak pricing.
26. Non-price regulation: the concept of franchise bidding, control over the quality of service, radical methods.
27. Monopolistic competition. Pre-entry equilibrium, post-entry equilibrium. Product differentiation: definition, types, measurement.
28. Sources of natural and strategic product differentiation. The Rothschild Index. Two types of economic models of product differentiation: representative consumer models, spatial or location models.
29. The socially optimal amount of product differentiation.
30. Lancaster's product characteristics model.
31. Hotelling's location model.
32. Salop's location model.
33. IS (investment–saving) curve. Elasticity of the curve. Shifts of the IS curve**.**
34. LM (liquidity-money) curve. Elasticity of the curve. Shifts of the IS curve.
35. IS-LM Model.
36. Monetary policy in the IS-LM model.
37. Fiscal policy in the IS-LM model.
38. Liquidity and Investment traps.
39. BP (balance of payments) curve.
40. The Mundell–Fleming model: basic assumptions, different cases of capital mobility.
41. IS-LM-BP model (perfect capital mobility)
42. IS-LM-BP model (imperfect capital mobility)

2.4 Exam timing

- Fall semester tests – three times during the semester; the exam is to be held in writing in January, 10-25th. The duration of the written exam is one hour and a half.

1.5   Consolidated reading list (in alphabetic order)

Obligatory:
　　1. Lipczynski John; John O S Wilson; John Goddard. Industrial organization competition, strategy and policy, Harlow Pearson 2017.
　　2. Mankiw N. Gregory. Macroeconomics, 10th ed., 2019.
Optional:
　1. Park-Sing Choi, Eric Dunaway, Felix Munoz-Garcia. Industrial Organization. Practice Exercises with Answer Keys, Springer Texts in Business and Economics, 2021. https://bibliocatalog.mgimo.ru:2133/content/pdf/10.1007/978-3-030-57284-6.pdf
　2. Nectarios Michail. Money, Credit, and Crises. Understanding the Modern Banking System, Springer, 2021. https://bibliocatalog.mgimo.ru:2133/book/10.1007/978-3-030-64384-3

Some relevant websites and bibliographic databases:

https://www.sciencedirect.com	More than 1700 journals from Elsevier in all subject areas, including economics, business, social sciences, psychology, mathematics, computer science, engineering, physics, etc.
https://www.springer.com/gp	More than 1200 journals from Springer. Subjects include mathematics, physics, engineering, medicine, and others. Also available more than 200 publications in economics, sociology, and law, including the well-known *Economic Theory*, *Public Choice*, *Theory and Society*, and *the Journal of Business Ethics*. Coverage from the first issue to the present.
http://www.cbr.ru	The website of the Central Bank of the Russian Federation
http://epp.eurostat.ec.europa.eu/statistics_explained	The website of Eurostat
http://www.gks.ru	The website of the Federal Service of State Statistics
http://www.imf.org	The website of the International Monetary Fund
http://www.nber.org/papers	The website of the National Bureau of Economic Research
http://www.worldbank.org	The website of the World Bank

PART 3. FINAL REMARKS

- Plagiarism is considered as a severe violation and as an indication of incompetence in the course. Plagiarism is understood as making of one's text using compilation method for other people's publications, even connected with own phrases and sentences. Collective performance of individual tasks is also unacceptable. Proved plagiarism, an F-mark is given regardless of the fulfillment of all other requirements.
- Assignments are to be handed in on the due date. Late submissions will translate into the lowering of the grade by 1/3 of a grade for each day of delay.
- Students are asked to keep a copy of all work submitted for evaluation.
- Due to the specific features of the course students are encouraged to use MS Excel and financial calculators extensively during seminars.