

## COURSE DESCRIPTION

| Course code | Course group | Volume in ECTS credits | Course valid from | Course valid to |
|-------------|--------------|------------------------|-------------------|-----------------|
| EKM5021     | C            | 6                      | 2014 04 01        | 2019 04 01      |

|                                  |                             |
|----------------------------------|-----------------------------|
| Course type                      | Compulsory                  |
| Course level                     | Master (postgraduate) level |
| Semester the course is delivered | 1                           |
| Study form                       | Face-to-face                |

### Course title in English

**MICROECONOMICS AND GAME THEORY**

### Course title in Lithuanian

**MIKROEKONOMIKA IR LOŠIMŲ TEORIJA**

### Short course annotation in Lithuanian

Dalyko paskirtis – suteikti studentams bendrąsias mikroekonomikos teorijos žinias, kai nagrinėjama netobulos konkurencijos ar rinkos trūkumus turinti bendroji pusiausvyra bei visuomenės pasirinkimo problema, nuosekliai juos supažindinant su bazinėmis lošimo teorijos sąvokomis bei analitiniais instrumentais, skirtais analizuoti skirtingas konfliktines elgsenos situacijas atsirandančias ekonominėje aplinkoje. Studijų dalykas apima paskaitas, seminarus, atvejų analizę.

### Short course annotation in English

Course objective is to give students basic microeconomics theory knowledge, when a public choice problem and a general equilibrium consisted of imperfect competition and market failure are analysed; to coherently introduce students to basic concept of game theory and analytical instruments, intended to analyse different situations of conflict behaviour in economic environment. Course includes lectures, seminars and case analysis.

### Prerequisites for entering the course

Microeconomics, Macroeconomics

### Course aim

To teach students analyse the market behaviour of individual consumers and firms, strategic option models based on situation, to choose optimal decisions for economic activity subjects based on different conditions and to apply theoretical game theory models in order to solve earlier mentioned microeconomics problems related to specific practical situation.

### Links between study programme outcomes, course outcomes and criteria of learning achievement evaluation

| Study programme outcomes   | Course outcomes  | Criteria of learning achievement evaluation   |
|--|--|---|
| 1. To demonstrate knowledge and understanding of international economics theory and processes; to analyze and critically evaluate economic theory, new findings and the impact of global environment on economic systems; to develop and apply original ideas for research | 1. Explain, analyse and assess major concepts of microeconomic theory when a public choice problem and a general equilibrium consisted of imperfect competition and market failure are analysed. | Student can identify and describe appropriately at least half of given microeconomics concepts.   |
| 3. To apply methods of modern economic analysis, to employ techniques of quantitative, statistical and experimental analysis for policy evaluation in international context.   | 2. Know and apply strategic interaction choice models under various conditions.  | Student can identify and describe at least two microeconomics models and evaluate them by appropriately at least half of stated analysis questions. |

### Link between course outcomes and content

| Course outcomes   | Content (topics)  |
|---|---|
| 1. Explain, analyse and assess major concepts of microeconomics theory when a public choice problem and a general equilibrium consisted of imperfect competition and market failure are analysed. | 1. Introduction: basic categories of microeconomic theory.<br>2. Marshallian demand.<br>4. Theory of the firm.<br>5. Partial equilibrium. |

|   |   |
|---|---|
| 2. Know and apply strategic interaction choice models under various conditions. | 3. Individual choice under uncertainty.<br>4. Theory of the firm.<br>5. Partial equilibrium.<br>6. General equilibrium.<br>7. Social choice and welfare.<br>8. Imperfect competition.<br>9. Introduction to game theory (review of basic concepts).<br>10. Mixed strategy equilibrium.<br>11. Extensive games with perfect information.<br>12. Games with imperfect information.<br>13. Rationalizability.<br>14. Auctions.<br>15. Repeated games.<br>16. Bargaining games. |
|---|---|

### Study methods

*Teaching methods:* visual presentation of information (explanation, illustration); lecture-based case analysis; formulation and explanation of problem-based examples and questions; moderation of discussions; moderation of case studies; consultations.

*Learning methods:* discussions; analysis of problem-based examples and questions; consultations; practical tasks; analysis of written cases and examples; group discussion on seminar tasks; independent student work; search and analysis of information in educational literature, periodicals, statistical documents, etc.

### Methods of learning achievement assessment

Written assessment (during colloquium and examination); assessment of case analysis.

### Distribution of workload for students

Lectures and case studies – 45 hrs.

Seminars and case studies – 15 hrs.

Independent student work (*for a student to prepare for lectures, seminars, case studies, read reference materials independently, prepare for the colloquium and examination*) – 100 hrs.

### Structure of cumulative grade

Colloquium – 30%.

Seminar tasks and case studies – 20%.

Examination - 50 %.

### Recommended literature

| No.                             | Public<br>ation<br>year | Authors of publication and title                         | Publishing<br>house           | Number of copies in |                  |
|---------------------------------|-------------------------|--|-------------------------------|---------------------|------------------|
|                                 |                         |  |                               | University library  | Self-study rooms |
| <b>Compulsory literature</b>    |                         |  |                               |                     |                  |
| 1.                              | 2013                    | Maschler, M., Solan, E. Game theory.                     | Cambridge University Press    | 1                   |                  |
| 2.                              | 2003                    | Osborne, M. J. An introduction to Game Theory.           | Oxford University Press       | 1                   |                  |
| 3.                              | 2011                    | Jehle, G. A., Reny, P. J. Advanced microeconomic theory. | Financial Times/Prentice Hall | 1                   |                  |
| <b>Supplementary literature</b> |                         |  |                               |                     |                  |
| 4.                              | 1984                    | Varian, H. A. Microeconomic analysis.                    | Norton                        | 3                   |                  |
| 5.                              | 1990                    | Kreps, D. M. A course in microeconomic theory.           | Princeton University Press    | -                   | 1                |
| 6.                              | 2014                    | Perloff, J. M. Microeconomics with calculus.             | Pearson Education Limited     | 1                   |                  |
| 7.                              | 2010                    | Varian, H. A. Microeconomics: a modern approach.         | Norton                        | 66                  |                  |

### Course description designed by

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