

## **COURSE (MODULE) DESCRIPTION**

| Course title      | Code |
|-------------------|------|
| Economic Theory I |      |

| Staff                                 | Department                                       |
|---------------------------------------|--------------------------------------------------|
| Coordinator: Dr. Justina Klimavičiūtė | Faculty of Economics and Business Administration |
| Other(s): Dr. Andrius Kažukauskas     |                                                  |

| Study cycle        | Course type |  |  |  |  |
|--------------------|-------------|--|--|--|--|
| First (Bachelor's) | Compulsory  |  |  |  |  |

| Form of implementation | Form of implementation Period of implementation Language |         |  |  |
|------------------------|----------------------------------------------------------|---------|--|--|
| Face-to-face           | Semester 3                                               | English |  |  |

| Requirements for student               |                                   |  |  |  |  |
|----------------------------------------|-----------------------------------|--|--|--|--|
| Prerequisites: Principles of Economics | Additional requirements (if any): |  |  |  |  |

| Number of ECTS credits | Student's workload | Contact hours | Individual work |
|------------------------|--------------------|---------------|-----------------|
| 10                     | 261                | 73            | 188             |

## Purpose of the course and competences developed

To provide students with a thorough understanding of core concepts and methods of microeconomics, as a foundation for subsequent study of microeconomic topics within the degree programme, and as one of the key elements in the professional training of an economist.

| key elements in the professional training of an economist. |                                |                           |  |  |  |  |  |
|------------------------------------------------------------|--------------------------------|---------------------------|--|--|--|--|--|
| Learning outcomes (corresponding                           | Teaching methods               | Assessment methods        |  |  |  |  |  |
| learning outcomes of the programme)                        |                                |                           |  |  |  |  |  |
| Have acquired knowledge in main                            | Lectures and lecture notes,    | Two midterm tests and the |  |  |  |  |  |
| microeconomic concepts and ideas and are                   | tutorials, classroom           | final exam consisting of  |  |  |  |  |  |
| able to apply them when analyzing                          | discussion.                    | problems and multiple-    |  |  |  |  |  |
| economic problems. (1.1)                                   |                                | choice questions.         |  |  |  |  |  |
| Appreciate assumptions and limitations of                  | Lectures and lecture notes,    |                           |  |  |  |  |  |
| microeconomic models when they are                         | tutorials.                     |                           |  |  |  |  |  |
| applied to the real world problems. (3.1)                  |                                |                           |  |  |  |  |  |
| Competence in using microeconomic                          | Lectures, tutorials, exercise  |                           |  |  |  |  |  |
| methods and interpreting economic models.                  | solving.                       |                           |  |  |  |  |  |
| (3.2)                                                      | solving.                       |                           |  |  |  |  |  |
| Construct logical and coherent arguments                   |                                |                           |  |  |  |  |  |
| using economic concepts and develop                        | Lectures, tutorials, classroom |                           |  |  |  |  |  |
| economic thinking, as well as communicate                  | discussion, midterm tests.     |                           |  |  |  |  |  |
| ideas in a clear manner through written,                   | discussion, indicini tests.    |                           |  |  |  |  |  |
| graphical, and oral forms. (4.2)                           |                                |                           |  |  |  |  |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Contact / Individual work: time and assignment |           |          |                   |                 |          | and assignments |                 |                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------|----------|-------------------|-----------------|----------|-----------------|-----------------|-------------------------------------------------------------------|
| Course themes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Lectures                                       | Tutorials | Seminars | Practical classes | Laboratory work | Practice | Contact hours   | Individual work | Assignments due<br>date                                           |
| MICROECONOMIC PART:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                |           |          |                   |                 |          |                 |                 |                                                                   |
| <ul> <li>Consumer theory, Part 1:         <ul> <li>Consumer's optimization problem: budget constraint, preferences, utility function, indifference curves, marginal rate of substitution, marginal utility, utility maximization, indirect utility function, expenditure function, Marshallian and Hicksian demand, Roy's identity.</li> <li>Comparative statics of consumer demand: income offer and Engel curves, price offer curves, Slutsky equation and its analysis.</li> <li>Consumer's problem with endowments in the budget</li> </ul> </li> </ul> | 5                                              | 2         |          |                   |                 |          | 7               | 20              | Readings: [V1] Ch.2-6, [V2] Ch.7-9.                               |
| constraint.  2. Consumer theory, Part 2:  • Revealed preference.  • Compensating and equivalent variations and consumer surplus.  • Market demand.  • Uncertainty, risk aversion and insurance.  • Going beyond the standard theory.                                                                                                                                                                                                                                                                                                                        | 6                                              | 3         |          |                   |                 |          | 9               | 22              | Readings: [V1] Ch.7,<br>Ch.12, Ch.15, [V2]<br>Ch.10-11, [B] Ch.3. |
| <ul> <li>3. Production theory:</li> <li>Technology: production set, production function, isoquants, marginal product, technical rate of substitution, returns to scale.</li> <li>Profit maximization: profit maximization problem, profit function, Hotelling's lemma.</li> <li>Cost theory: cost minimization problem, cost function, isocosts, conditional factor demand functions, Shephard's lemma, cost curves.</li> </ul>                                                                                                                             | 3                                              | 2         |          |                   |                 |          | 5               | 12              | Readings: [V1]<br>Ch.19-22, [V2] Ch.1-<br>5.                      |
| Midterm test 1 (topics 1-3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2                                              |           |          |                   |                 |          | 2               | 8               |                                                                   |
| 4. Competitive markets:  Firm supply in the short and long-run, industry supply in the short and long-run.                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2                                              | 1         |          |                   |                 |          | 3               | 8               | Readings: [V1]<br>Ch.23-24, Ch.16<br>[V2] Ch.13.                  |
| 5. Monopoly:  Monopoly profit maximization, price discrimination, monopolistic competition, monopsony.                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3                                              | 2         |          |                   |                 |          | 5               | 12              | Readings: [V1]<br>Ch.25-27, [V2]<br>Ch.14.                        |

| 6.  | Oligopoly: Cournot and Bertrand models, quantity and price leadership, collusion.                                                                                                                                                                                                                                                                                    | 3  | 2  |  |  | 5  | 12  | Readings: [V1]<br>Ch.28.                            |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|--|--|----|-----|-----------------------------------------------------|
| 7.  | General equilibrium with pure exchange: Edgeworth box, Pareto efficient allocations, Walrasian equilibrium, Walras' law, First and Second theorems of welfare economics.                                                                                                                                                                                             | 3  | 1  |  |  | 4  | 11  | Readings: [V1]<br>Ch.32.                            |
| 8.  | General equilibrium with production: Robinson Crusoe economy, production possibilities, comparative advantage, Pareto efficiency.                                                                                                                                                                                                                                    | 3  | 2  |  |  | 5  | 12  | Readings: [V1]<br>Ch.33.                            |
| 9.  | Social welfare: Aggregation of preferences, social welfare functions, welfare maximization.                                                                                                                                                                                                                                                                          | 2  | 1  |  |  | 3  | 9   | Readings: [V1]<br>Ch.34.                            |
| 10. | <ul> <li>Externalities and public goods:</li> <li>Externalities: Coase theorem, private and social costs, Pigouvian taxes and subsidies, the tragedy of the commons.</li> <li>Public goods: Pareto efficient provision of public goods, "freeriding" problem.</li> </ul>                                                                                             | 6  | 3  |  |  | 9  | 21  | Readings: [V1]<br>Ch.35, Ch.37, [B]<br>Ch.4, Ch. 6. |
|     | Midterm test 2 (topics 7-10)                                                                                                                                                                                                                                                                                                                                         | 2  |    |  |  | 2  | 8   |                                                     |
| 11. | Asymmetric information: Adverse selection, moral hazard, signaling, incentives.                                                                                                                                                                                                                                                                                      | 3  | 2  |  |  | 5  | 12  | Readings: [V1]<br>Ch.38, [V2] Ch.25,<br>[B] Ch.7.   |
| 12. | <ul> <li>Game theory and applications:</li> <li>Dominant strategies vs. dominated strategies</li> <li>Strongly dominated strategies vs. weakly dominated strategies</li> <li>Iterative deletion of dominated strategies</li> <li>Best response</li> <li>Dominant strategy equilibrium vs. Nash equilibrium.</li> <li>Pure strategies vs. mixed strategies</li> </ul> | 6  | 2  |  |  | 8  | 21  | Readings: Lecture notes, [V1] Ch.29-30, [B] Ch.1.   |
|     | Exam review session                                                                                                                                                                                                                                                                                                                                                  |    | 1  |  |  | 1  |     |                                                     |
|     | Total                                                                                                                                                                                                                                                                                                                                                                | 48 | 25 |  |  | 73 | 188 |                                                     |
|     | Total                                                                                                                                                                                                                                                                                                                                                                | 70 | 23 |  |  | 13 | 100 |                                                     |

| Assessment strategy                                                                         | Weight % | Deadline            | Assessment Criteria                                                                                                                                                                                                                                                                                              |  |  |  |  |
|---------------------------------------------------------------------------------------------|----------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Midterm test 1 (topics 1-3)                                                                 | 20 %     | During the semester | The test consists of problems and multiple-choice questions covering the material of topics 1-3. The test is graded at the 10-point scale; in the final grade calculation, the test grade is multiplied by 0.2.  Note: 1 extra point can be earned for active participation in class discussion of topics 1-6.   |  |  |  |  |
| Midterm test 2 (topics 7-10)                                                                | 20 %     | During the semester | The test consists of problems and multiple-choice questions covering the material of topics 7-10. The test is graded at the 10-point scale; in the final grade calculation, the test grade is multiplied by 0.2.  Note: 1 extra point can be earned for active participation in class discussion of topics 7-12. |  |  |  |  |
| Final exam (all topics)                                                                     | 60 %     | Exam<br>session     | The exam consists of problems and multiple-choice questions covering the material of all the topics. The exam is graded at the 10-point scale; in the final grade calculation, the exam grade is multiplied by 0.6.                                                                                              |  |  |  |  |
| Final grade = $0.2*$ (Midterm1 grade) + $0.2*$ (Midterm2 grade) + $0.6*$ (Final exam grade) |          |                     |                                                                                                                                                                                                                                                                                                                  |  |  |  |  |

| Author                             | Publishing | Title                                                      | Issue No       | Publishing house                                                                                                                                                                                                                                                    |  |  |  |  |  |
|------------------------------------|------------|------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                                    | year       |                                                            | or volume      | or Internet site                                                                                                                                                                                                                                                    |  |  |  |  |  |
| Required reading                   |            |                                                            |                |                                                                                                                                                                                                                                                                     |  |  |  |  |  |
| [V1] Varian H.R.                   | 2014       | Intermediate Microeconomics: A Modern Approach             | 9th Edition    | W. W. Norton & Company                                                                                                                                                                                                                                              |  |  |  |  |  |
| [V2] Varian H.R.                   | 1992       | Microeconomic Analysis                                     | 3rd<br>Edition | W. W. Norton & Company                                                                                                                                                                                                                                              |  |  |  |  |  |
| [B] Bowles S.                      | 2006       | Microeconomics:<br>Behavior, Institutions and<br>Evolution |                | Princeton University Press  Available online: <a href="https://ebookcentral.proquest_com/lib/viluniv-ebooks/home.action">https://ebookcentral.proquest_com/lib/viluniv-ebooks/home.action</a>                                                                       |  |  |  |  |  |
| Optional reading                   |            |                                                            |                |                                                                                                                                                                                                                                                                     |  |  |  |  |  |
| Osborne M. J. and<br>Rubinstein A. | 2020       | Models in Microeconomic<br>Theory                          |                | Open Book Publishers  Available online: <a href="https://www.openbookpublishers.com/product/1159">https://www.openbookpublishers.com/product/1171</a> <a href="https://www.openbookpublishers.com/product/1171">https://www.openbookpublishers.com/product/1171</a> |  |  |  |  |  |