COURSE OUTLINE: MICROECONOMIC ANALYSIS I

GENERAL

SCHOOL	ECONOMICS AND BUSINESS		
ACADEMIC UNIT	ECONOMICS		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**OA0201**	**SEMESTER**	**2nd**
COURSE TITLE	**Microeconomic Analysis I**		
INSTRUCTOR(S)	**Professor N. Tzeremes**		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialized general knowledge, skills development*	Mandatory Courses (M4.017)
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	https://www.econ.uth.gr/

LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*

- *Guidelines for writing Learning Outcomes*

Upon completing the course, students will have developed skills and knowledge to:

1. **Derive utility functions and indifference curves**:
   Students will be able to understand consumer preferences and create graphical representations that depict utility levels for different combinations of goods. This includes:
   - Studying the properties of indifference curves (e.g., convexity, negative slope).
   - Applying preference theory.
2. **Calculate and make decisions regarding demand**:
   Students will be able to:
   - Analyze consumer behavior in different situations.
   - Use demand theory to calculate the quantities chosen by consumers, considering factors such as income, prices, and preferences.
3. **Evaluate economies of scale in a business**:
   - Identify whether a business operates under positive or negative economies of scale.
   - Examine the relationship between production costs and operational scale.
4. **Make decisions regarding production quantities**:
   - Students will be able to calculate optimal production quantities, taking into account costs, revenues, and constraints.
   - Use analytical tools to maximize the firm's profits.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
	Others…
	…….

Production of new research ideas

The course "Microeconomic Analysis I" aims to develop the following general skills:

1. **Search, analysis, and synthesis of data and information using appropriate technologies**:
   - Developing skills in critical analysis of data related to consumer and producer behavior.
   - Using analytical and modeling tools to derive demand, supply, and production functions.
2. **Independent work**:
   - Cultivating the ability to independently explore microeconomic problems.
   - Taking responsibility for making decisions based on rational data analysis.
3. **Critical and self-critical thinking**:
   - Encouraging the ability to evaluate and improve one's decisions.
   - Enhancing understanding of economic problems through systematic critical analysis.
4. **Promotion of free, creative, and inductive thinking**:
   - Applying creative approaches to solving microeconomic issues.
   - Synthesizing new ideas and applications in both theory and practice.
5. **Evaluation and critical analysis**:
   - Assessing economic performance and decisions in various contexts (business and consumer).
   - Critically evaluating the functioning of markets and economic mechanisms.
6. **Formulation and evaluation of policy proposals**:
   - Examining microeconomic parameters that influence policy-making.
   - Supporting decision-making based on evidence-based analysis.
7. **Decision-making**:
   - Optimizing production and consumption choices under resource constraints.
   - Becoming familiar with decision-making processes under uncertainty and varying scenarios.

SYLLABUS

1. **Consumer Theory**

Consumer Theory examines individual behavior and choices under constraints to achieve maximum satisfaction (utility). The content includes:

- **Utility and Preferences**:
    - **Indifference Curves**: Graphical representations showing combinations of goods that provide the same utility.
    - **Marginal Rate of Substitution (MRS)**: The rate at which a consumer is willing to substitute one good for another while maintaining the same level of utility.
- **Consumer Behavior**:
    - **Utility Maximization**: Choosing the combination of goods that maximizes utility within income constraints.
    - **Income Constraint**: The limitation of choices due to available resources.
    - **Consumer Equilibrium**: The point where the indifference curve is tangent to the income constraint.
    - **Income-Consumption Curve**: The relationship between income and consumption choices.
    - **Engel Curves**: Depict how the consumption of a good changes with income.
    - **Individual and Market Demand**: How individual choices and total market demand are shaped.
    - **Income Elasticity of Demand**: A measure of how demand for a good changes with income.
    - **Price Changes and Demand Elasticity**: Effects of price changes and demand sensitivity.
    - **Price Curve**: Shows the relationship between prices and consumption.
    - **Demand Curve**: Illustrates the quantity demanded at each price level.
    - **Substitution and Complementarity**: Analysis of the relationships between goods.

2. **Producer Theory**

Producer Theory studies production processes, input utilization, and production decision-making. The content is divided into:

- **Short Run**:
    - **Production Function with One Variable Input**: Analysis of the relationship between inputs and output when only one input can vary.
    - **Law of Diminishing Marginal Returns**: The decline in additional output as the quantity of the variable input increases.
    - **Three Stages of Production**:
        - Increasing returns stage.
        - Diminishing but positive returns stage.
        - Negative returns stage.

- **Long Run**:
  - **Production Function with Two Variable Inputs**: Evaluation of output when both inputs can vary.
  - **Isoquant Curve**: Combinations of inputs that produce the same level of output.
  - **Marginal Rate of Technical Substitution (MRTS)**: The rate at which one input can replace another while maintaining the same output.
  - **Expansion Path**: Shows how the optimal combination of inputs changes as output increases.
  - **Input Demand Functions**: Determining the quantity of each input required for different production levels.
  - **Production Function Coefficient**: Measure of each input's contribution to output.
  - **Returns to Scale**: Examining the relationship between inputs and outputs at various scales of production (increasing, constant, decreasing).

TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	• **Use of the e-class electronic platform** for posting: (a) lecture materials, (b) announcements, (c) tutorial exercises. • **Utilization of electronic tools for lecture presentations**, such as PowerPoint.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching,*	see table below

Activity	*Semester workload*
Lectures	39
Tutorials - Problem-solving exercises	30
Study of literature:	105
Exemption-based progress assessment	4
Final semester examination	2

educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS	Course total | ***180***
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other.* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The final grade for the course is determined by: a) **Written examinations at the end of the semester** (100% of the final grade), consisting of calculation, development, analysis, and comprehension questions covering the taught modules of Microeconomic Analysis I. **OR**, alternatively, through participation in: b) **Midterm exemption-based progress assessment** (100% of the final grade).

ATTACHED BIBLIOGRAPHY

J.M. Perloff (2014), «Microeconomics with Calculus», 3rd Edition, PEARSON

R.S. Pindyck, D.L. Rubinfeld (2013), «Microeconomics», 8th Edition, PEARSON

M. Parkin (2012), «Microeconomics», 10th Edition, Addison-Wesley

R.E. Hall, M. Lieberman (2010), «Microeconomics Principles and Applications», 5th Edition, SOUTH-WESTERN CENGAGE Learning

C.E. Ferguson (1972), «Microeconomic Theory», 3rd Edition, RICHARD D. IRWIN, INC