# COURSE OUTLINE

## (1) GENERAL

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|---|---|---|---|
| **SCHOOL** | SCHOOL OF ECONOMICS AND MANAGEMENT SCIENCE | | |
| **ACADEMIC UNIT** | DEPARTMENT OF ECONOMICS | | |
| **LEVEL OF STUDIES** | BSc | | |
| **COURSE CODE** | OIK909 | **SEMESTER** | **7th** |
| **COURSE TITLE** | Environmental and Resource Economics | | |

| **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** |
|---|---|---|
| Credits are awarded collectively for the course as a whole | 4 | 6 |
| | | |
| | | |
| *Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).* | | |

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| **COURSE TYPE** *general background, special background, specialised general knowledge, skills development* | Optional – Special Background |
| **PREREQUISITE COURSES:** | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | Greek |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | No |
| **COURSE WEBSITE (URL)** | https://ecourse.uoi.gr/course/view.php?id=3353 |

## (2) 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*

- Explain core principles of Environmental & Resource Economics, including market failures, externalities, and common-pool resources.
- Describe major environmental policy instruments (taxes, tradable permits, standards) and their basic properties.
- Outline the concepts of intertemporal allocation, environmental valuation, and CBA, and summarize key findings on climate, energy, water, agriculture, and forests.
- Apply supply–demand and partial-equilibrium tools to illustrate pollution control and resource use.
- Perform a basic CBA with stated assumptions and compute simple welfare changes using standard valuation results.
- Classify resources as renewable/non-renewable and propose straightforward management rules (e.g., safe yield).
- Identify where market failure warrants intervention and select a suitable policy instrument at an introductory level.
- Recognize main trade-offs among efficiency, equity, and sustainability under clear guidance.

- Assess data and assumptions for face validity and limitations.
- Produce clear, structured short policy briefs and presentations explaining results to a non-specialist audience.
- Use basic disciplinary terminology correctly (externalities, Pigouvian tax, Hotelling rule, discounting).
- Locate and summarize introductory academic and policy sources; follow instructions to replicate simple analyses.
- Reflect on knowledge gaps and seek guidance for further learning.

**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?*

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|---|---|
| *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* | *……* |
| *Production of new research ideas* | *Others…* |
| | *…….* |

- Knowledge & understanding
- Analytical & methodological skills
- Problem-solving & synthesis
- Critical thinking & judgment
- Communication & transferable skills

## (3) SYLLABUS

This course provides a broad overview of the economic concepts associated with environmental problems and natural resource issues. We focus on environmental policy design and its practical feasibility and implementation, both from the perspective of policymakers/regulators and from that of regulated entities facing new standards. Topics span energy, climate change, the "greening" of the economy (green transition), population, agriculture, forestry, and water, underscoring the urgent need to address major environmental challenges in these domains.

We will examine:

- Core principles of Environmental Economics.
- Market failures and the rationale for environmental policy (externalities and common-pool resources/commons).
- Intertemporal (dynamic) allocation of resources.
- Environmental valuation and Cost–Benefit Analysis (CBA).
- Environmental policy instruments.
- Climate change.
- Population–environment interactions.
- Renewable and non-renewable resources.
- Sustainable development.

## (4) TEACHING and LEARNING METHODS - EVALUATION

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|---|---|
| **DELIVERY**<br>*Face-to-face, Distance learning, etc.* | In person |
| **USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY**<br>*Use of ICT in teaching, laboratory education, communication with students* | Use of Microsoft Office Excel |
| **TEACHING METHODS** | |

| ***Activity*** | ***Semester workload*** |
|---|---|
| Lectures | 52 |

| | |
|---|---|
| *The manner and methods of teaching are described in detail.*<br>*Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.*<br><br>*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* | Supervised Study: 48<br>Non-supervised study: 50<br>Course total: ***150*** |
| **STUDENT PERFORMANCE EVALUATION**<br>*Description of the evaluation procedure*<br><br>*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*<br><br>*Specifically-defined evaluation criteria are given, and if and where they are accessible to students.* | The course includes lectures, exercises (10%), an optional assignment (20%), and a final written examination (70–90%).<br><br>The optional assignment entails a mandatory presentation on a fixed date (no rescheduling). Further information will be provided mid-semester, once environmental policies have been covered.<br><br>The examination may include multiple-choice questions, short-answer questions, problem-solving exercises, and economic interpretation of results. |

## (5) ATTACHED BIBLIOGRAPHY

**Core Textbook**

- Book [112693960]: Environmental and Natural Resource Economics, 5th Edition, Jonathan M. Harris, Brian Roach; scientific editors: Athanasios Kampas, Efthymia Kyriakopoulou. Tziolas Publications, ISBN: 9789604189953.

**Recommended Bibliography**

- Book [122075417]: Principles of Environmental Economics and Sustainability, Ahmed Hussen (author); editors: Stefanos Natsis, Nikolaos Chatzistamoulou. Kritiki Publications, ISBN: 9789605864439