**SYLLABUS**

1. **General**

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| **School** | Applied Economics and Social Sciences | | | | |
| **Department** | Regional and Economic Development | | | | |
| **Level of Studies** | Undergraduate | | | | |
| **Couse Code** | 6634 | **Semester** | | 6th | |
| **Course Title** | Economics of Energy | | | | |
| **Teacher** | PANAGIOTIS PANAGIOTOPOULOS | | | | |
| **INDEPENDENT TEACHING ACTIVITIES**  **where credit is awarded for discrete parts of the course e.g. lectures, laboratory exercises, etc. If credit is awarded for the whole course, indicate the weekly teaching hours and the total number of credits** | | | **WEEKLY CONTACT HOURS** | | **ECTS** |
|  | | | 4 | | 5 |
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| **COURSE TYPE**  **Background, General Knowledge, Scientific Area, Skills Development** | Scientific area | | | | |
| **Prerequisites** | - | | | | |
| **Language of instruction and examinations** | Greek | | | | |
| **Course Offered to Erasmus Students** | No | | | | |
| **Course Webpage** | https://oeclass.aua.gr/eclass/ | | | | |

1. **COURSE LEARNING OUTCOMES**

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| **Learning Outcomes** | |
| * *The learning outcomes of the course describe the specific knowledge, skills and competences of an appropriate level that students will acquire after successful completion of the course.* | |
| Knowledge:   * - Know the ways of measuring energy demand and supply. * - Know the origin of different types of energy. * - Know the ways of measuring energy. * - Know how to measure energy efficiency.   Abilities (be able to):   * - Explain the elasticities of demand and supply of energy. * - Understand how different forms of energy are priced. * - Interpret energy security indicators. * - Understand energy efficiency margins. * - Search for energy data in various databases and explain them.   Skills:   * - Explain today's energy problems and data with the models and tools taught. * - Make their own positioning with arguments against the energy mix appropriate to a country or industry. | |
| ***General skills*** | |
| *Taking into account the general competences that the graduate should have acquired (as listed in the Diploma Supplement and listed below), which one(s) does the course aim at?* | |
| *Search, analysis and synthesis of data and information, including the use of the necessary technologies*  *Adaptation to new situations*  *Decision-making*  *Autonomous work*  *Group work*  *Working in an international environment*  *Working in an interdisciplinary environment*  *Generating new research ideas* | *Project planning and management*  *Respect for diversity and multiculturalism*  *Respect for the natural environment*  *Demonstrating social, professional and ethical responsibility and gender sensitivity*  *Exercise of criticism and self-criticism*  *Promotion of free, creative and deductive thinking* |
| Decision-making  Promoting free, creative and deductive thinking  Generating New Research Ideas | |

1. **COURSE CONTENT**

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| * 1. Introduction, * 2. The energy system * 3. types of energy data, * 4. energy demand and supply, * 5. Economic analysis of energy investments, * 6. Renewable and non-renewable energy sources, * 7. Energy pricing and taxation, * 8. Environmental Protection and Energy, * 9. Climate change and energy, * 10. energy challenges, * 11. energy security, energy access, * 12. energy demand management and oil, gas and coal markets, * 13. electricity market and electricity market regulation issues. |
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1. **TEACHING AND LEARNING METHODS - ASSESSMENT**

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| **METHOD OF DELIVERY**  **Face-to-face, Distance learning, etc.** | Lectures and meetings with students |
| **USE OF TECHNOLOGY, INFORMATION AND COMMUNICATION** *Use of ICT in teaching, laboratory training, communication with students* | Computer and interactive whiteboards will be used in teaching.  Presentations using Power point.  Communication with students will be done on a personal level, also using e-mail and direct communication (e.g. skype) |
| **ORGANISATION OF TEACHING**  *The way and methods of teaching are described in detail.*  *Lectures, Seminars, Laboratory Exercise, Field Exercise, Study & Analysis of Literature, Tutorials, Practical (Placement), Clinical Exercise, Artistic Workshop, Interactive teaching, Educational visits, Study visits, Project work, Writing of work / assignments, Artistic creation, etc.*  *The student's study hours for each learning activity as well as the hours of unguided study are indicated so that the total workload at semester level corresponds to the ECTS standards.* | |  |  | | --- | --- | | ***Activity*** | ***Workload*** | | Lectures | 52 hours | | Study of course material (material taught) | 35 hours | | Exercises and practice of in economic applications | 38 hours | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | Course Total | 125 hours | |
| **STUDENT ASSESSMENT**  *Description of the evaluation process*  *Language of Assessment, Assessment Methods, Formative or Inferential, Multiple Choice Test, Short Answer Questions, Test Development Questions, Problem Solving, Written Work, Report, Oral Examination, Oral Examination, Public Presentation, Laboratory Work, Clinical Examination of a Patient, Artistic Interpretation, Other*  *Explicitly identified assessment criteria are stated and if and where they are accessible to students.* | Written Final Exams at the end of the semester and tentative midterm examinations during the course.  Mandatory scientific paper. |

1. **BIBLIOGRAPHY**

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| Book [102124391]: Energy economics and energy system, Bradford T. Details  Book [22768942]: Energy-Law-Economics & Politics, FARADOURIS NIKOLAOS Details  Book [22771310]: Energy management and renewable energy, Eva Maleviti Details |