**COURSE LAYOUT**

1. **GENERAL**

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| **SCHOOL** | APPLIED ECONOMICS AND SOCIAL SCIENCES | | | | |
| **DEPARTMENT** | AGRICULTURAL ECONOMICS & RURAL DEVELOPMENT | | | | |
| **STUDY LEVEL** | *Undergraduate* | | | | |
| **COURSE CODE** | **3160** | **SEMESTER** | | 8th | |
| **COURSE TITLE** | APPLIED MICROECONOMETRICS | | | | |
| **INDEPENDENT TEACHING ACTIVITIES** | | | **WEEKLY TEACHING HOURS** | | **ECTS** |
| Lectures | | | 5 | | 5 |
|  | | |  | |  |
|  | | |  | |  |
| **COURSE TYPE** | Scientific area, Skill development | | | | |
| **PREREQUISITES** |  | | | | |
| **LANGUAGE** | Greek | | | | |
| **IS THE COURSE OFFERED for ERASMUS STUDENTS?** | No | | | | |
| **COURSE WEB PAGE** | <https://mediasrv.aua.gr/eclass/courses/AOA141/> | | | | |

1. **LEARNING OUTCOMES**

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| **Learning Outcomes** | |
| This course extends on knowledge gained in the course of Econometrics. In addition, theory is extended to non-linear models while at the same time these models are applied in real world practical problems. The aim of the course is to apply microeconometric methods of analyzing data with econometric software.  More specifically, the course aims in understanding linear and non-linear econometric models as well as apply all relevant hypotheses tests with respect to these models. In addition, students will acquire skills of applied econometric analysis in order to be able to answer interesting questions from microeconomic. The purpose of the course will be fulfilled by applying microeconometric analysis methods to real world data.  By successfully completing this course the student will:   * be able to understand how the nature of the dependent variable dictates which microeconometric model needs to be applied and when it is appropriate to use each model and hypothesis testing * know all core methods of doing econometric analysis with microeconomic data * conduct autonomous data analysis, interpret results and answer microeconomic related problems * have developed necessary skills for continuing his/her studies at graduate level * have the ability to analyze and interpret data by using microeconometric tools that can be used in making judgements about related socio-economic problems. | |
| **General competences** |
| * Search, analyze and synthesize data and information by using appropriate software * Autonomous work * Decision making * Critique and self-critique * Advance of free thinking and reasoning | |

1. **COURSE CONTENT**

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| 1. Introduction in econometric software    1. New user and basic commands    2. Reading data and data management    3. Manipulating data and graphical depiction 2. OLS regression    1. Data description    2. Regression analysis    3. Model specification    4. Marginal changes and elasticities 3. Models for binary dependent variables    1. The maximum likelihood method    2. The linear probability model    3. Non-linear probability models    4. The latent variable model    5. Estimating probit and logit models    6. Hypothesis testing    7. Model specification    8. Model fit    9. Predicted values and odds ratio 4. Models for ordered dependent variables    1. The latent variable model    2. Estimating ordered probit and ordered logit models    3. Hypothesis testing    4. Model specification    5. Model fit    6. Predicted values and odds ratio 5. Models for nominal dependent variables    1. The multinomial logit model    2. Hypothesis testing    3. Predicted values and odds ratio |

1. **TEACHING and LEARNING METHODS - Evaluation**

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| **TEACHING METHOD** | In class |
| **USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES** | * e-class platform * Power-Point slides * Econometric software |
| **TEACHING ORGANISATION** | |  |  | | --- | --- | | *Activity* | *Work Load* | | Lectures | 65 | | Study at home | 40 | | Homework | 20 | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | ***Course total***  ***(25 hours of student work load per ECTS)*** | ***125*** | |
| **STUDENTS EVALUATION** | Written final exams (70%) including:   * + - Solving microeconometric analysis problems using econometric software   Homework (30%) including:   * + - Data analysis and written assignments |

1. **BILBIOGRAPHY**

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| Suggested:   * Wooldridge J. (2011) Introduction to econometrics. 2nd edition. Publisher: Papazisi. * Stock, H. James and Watson, W. Mark (2017). Introduction to econometrics. 1st edition. Publisher: Dardanos.     Scientific journals:   * Journal of Applied Econometrics * Journal of Econometrics * Econometric Reviews * Econometrics Journal |