**COURSE OUTLINE**

1. **GENERAL**

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| **SCHOOL** | Health Sciences | | | | |
| **ACADEMIC UNIT** | Department of Biological Applications and Technology | | | | |
| **LEVEL OF STUDIES** | Undergraduate course | | | | |
| **COURSE CODE** | **ΒΕΥ803** | **SEMESTER** | | **4th** | |
| **COURSE TITLE** | General Ecology | | | | |
| **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** |
| Lectures and laboratory exercises | | | 6 | | 6 |
|  | | |  | |  |
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| *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, specialised general knowledge, skills development* | Special Background | | | | |
| **PREREQUISITE COURSES:** | None | | | | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | Greek | | | | |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | No | | | | |
| **COURSE WEBSITE (URL)** | http://ecourse.uoi.gr/course/ | | | | |

1. **LEARNING OUTCOMES**

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| **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* | |
| The purpose of the course is to present the basic principles of ecology through theory and fieldwork. Starting with population dynamics, the basic interactions of ecology (competition, predation / parasitism and cohabitation) are explained and how they work together in the ecological community. It also introduces the concept and analysis of biodiversity.  Upon completion of the course, students will be able to:  • understand population dynamics and interactions between species and their importance as general principles of biology  • know the appropriate roles of mathematical models, experiments and observations in ecology.  • have an introduction to field ecology  • Analyze field data | |
| **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*  *Adapting to new situations*  *Decision-making*  *Working independently*  *Team work*  *Working in an international environment*  *Working in an interdisciplinary environment*  *Production of new research ideas* | *Project planning and management*  *Respect for difference and multiculturalism*  *Respect for the natural environment*  *Showing social, professional and ethical responsibility and sensitivity to gender issues*  *Criticism and self-criticism*  *Production of free, creative and inductive thinking*  *……*  *Others…*  *…….* |
| * Working independently * Team work | |

1. **SYLLABUS**

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| We carry out introduction to ecology with laboratories in theory, data analysis and fieldwork including an excursion to Zagori.  LECTURES   1. ***Populations***. Sampling and density, population growth, density dependence, life tables, age-structured populations 2. ***Ecological interactions***. Interactions (++, +- and –), competition, predation, herbivory, parasitism, symbiosis, coevolution. 3. ***Communities and biodiversity***. Diversity indices, species abundance relations, types of diversity, SARs, island biogeography.   PRACTICALS   1. Population dynamics (PC lab) 2. Measuring plant biodiversity (UOI campus) 3. Analysis of diversity data (PC lab) 4. Field trip to Zagori: self-thinning, life tables and succession 5. Analysis of field data (PC lab) |

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

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| **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* |  |
| **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, 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* | |  |  | | --- | --- | | ***Activity*** | ***Semester workload*** | | *Lectures* | 39 | | *Lab work* | 18 | | *Tutorials* | 3 | |  |  | |  |  | |  |  | |  |  | |  |  | | Independent work | 100 | | Course total | ***160*** | |
| **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.* | Theory (70%)  Written final exam including:  - Multiple choice questions (~ 40%)  - Short questions (~ 40%)  - Quantitative exercises (~ 20%)  Laboratory: (30%)  References to individual exercises |

1. **ATTACHED BIBLIOGRAPHY**

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| *- Suggested bibliography:*  *- Related academic journals:*   1. Molles, Manuel C. (Jr), Ecology: meaning and application, 2009 2. Lykakis, S., Ecology, Athanasopopulos-Papadamis Publishers, Athens 1996. 3. J.M. Halley, Notes for General Ecology, UOI Website. |