## **Applied Ecology**

**Coordinators:** P. Dimitrakopoulos, N. Fyllas

**Lecturers / Instructors**: P. Dimitrakopoulos, N. Fyllas, A. Galanidis

**ECTS Credits**: 2

**Duration**:   April 2019

**Pre-requisites**:  Introduction to Environmental Sciences in Fall Semester @ CEU

**Course e-learning site:** <https://aegeanmoodle.aegean.gr>

### Aims, Objectives and Learning Outcomes

The aim of the course is to familiarize students with the current methods of measuring plant diversity and understanding its patterns along different environmental conditions. The course will be structured on a small number of lectures and a research project accompanied by a report per student (SR). This will be a hands-on course that will involve introductory lectures on biodiversity patterns, plant functional traits and strategies, and description of the objectives of the research project. All students will measure plants in the field and gather plant material for additional measurements in the lab. Students will analyze their own data aiming to explore the patterns of species richness and functional diversity across gradients or environments. At the end of the course, students will be evaluated through writing a report to summarize their findings.

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| **Learning Outcome** | **Assessment** | **Activities** | **Estimated Workload** |
| Students will be able to* Choose the appropriate sampling or experiment design to address an ecological topic.
* Understand different measures of species richness and functional diversity
* Familiarize with basic ecological fieldwork methods including: measurement protocols, functional traits measurements, vegetation description etc
* Apply statistical analyses to ecological data
* Draw up key findings and assess their implementation on ecological issues or problems.
 | Students will be graded based on their individual project report (SR) Marking criteria: (a) Literature review (15%), (b) Methods (20%)(c) Data analysis (20%)(d) Presentation of the study results (20%)(e) Discussion and conclusions (15%)(f) Referencing and Information gathering (10%) | Lectures Field & Lab Work Statistical Analyses, and Report Writing | 5 h30h25h |
| Total hours 60 |   |   | 60 |