

## UNIVERSITÀ DEGLI STUDI DI PALERMO

| DEPARTMENT                   | Scienze della Terra e del Mare   |
|------------------------------|--|
| ACADEMIC YEAR                | 2016/2017  |
| MASTER'S DEGREE (MSC)        | NATURAL SCIENCES   |
| SUBJECT                      | PLANT ECOLOGY  |
| TYPE OF EDUCATIONAL ACTIVITY | В  |
| AMBIT                        | 50511-Discipline ecologiche  |
| CODE                         | 02693  |
| SCIENTIFIC SECTOR(S)         | BIO/03   |
| HEAD PROFESSOR(S)            | SAJEVA MAURIZIO Professore Associato Univ. di PALERMO  |
| OTHER PROFESSOR(S)           |  |
| CREDITS                      | 6  |
| INDIVIDUAL STUDY (Hrs)       | 98   |
| COURSE ACTIVITY (Hrs)        | 52   |
| PROPAEDEUTICAL SUBJECTS      |  |
| MUTUALIZATION                |  |
| YEAR                         | 1  |
| TERM (SEMESTER)              | 2° semester  |
| ATTENDANCE                   | Not mandatory  |
| EVALUATION                   | Out of 30  |
| TEACHER OFFICE HOURS         | SAJEVA MAURIZIO  |
|                              | Monday 10:00 12:00 Studio del docente in via Archirafi 20, quinto piano. E' preferibile prenotare il ricevimento scrivendo a maurizio.sajeva@unipa.it, con la possibilta di scegliere altri giorni secondo la disponibilita. |

**DOCENTE:** Prof. MAURIZIO SAJEVA

| PREREQUISITES          | Basic knowledge of plant physiology  |
|------------------------|--|
| LEARNING OUTCOMES      | Capability to understand adaptation taht is the basis of evolution. Acquisition of the tools for preparing ecological and conservation studies. Making autonomous judgments. To be able to evaluate results and implications of the results obtained. To evaluate the information from the media which regard own competences by using the competences acquired.   |
| ASSESSMENT METHODS     | A final oral exam consisting in a talk aimed at demonstrating knowledge and understanding of the program topics (including lab practicals), ability to analyze and combine information obtained from the course, verbal communication skills and use of appropriate scientific terminology.  The student will be asked to answer a minimum of three questions.  The sufficiency threshold (18/30) will be met by demonstrating to the examination board at least a general knowledge and understanding of the subjects and basic communication skills. Rating will increase (up to 30/30 cum laude) with increasing ability and detail in explaining and discussing the topics related to the subject.   |
| EDUCATIONAL OBJECTIVES | Capability to coomunicate the results of investigations. To be able to evaluate the environmental fall-out of conservation activities. Capability to update by searching appropriate publications and literature. Capability to attend second level Master courses.  The course will introduce to the principles of plant ecology, why plants are the way they are, their relationships to other living beings, how they developed in evolution and which factors determine their growth and survival. An introduction to basic plants physiology will give the information needed to better understand how plants may adapt to extreme environments. The course will also focus on the role of Plant Ecology in the major international conventions on nature conservation (CBD and CITES). |
| TEACHING METHODS       | lessons and labs   |
| SUGGESTED BIBLIOGRAPHY | Pubblicazioni fornite dal docente/scientific papers provided by the professor Suggested books: Schulze, E.D., Beck, E. & Müller-Hohenstein, K., 2005. Plant Ecology. Springer. Larcher W., 2013 Physiological Plant Ecology: Ecophysiology and Stress Physiology of Functional Groups. Storia culturale del clima./A Cultural History of Climate by W. Behringer. 1984. G. Orwell.   |

| SYLLABUS |   |  |
|----------|---|--|
| Hrs      | Frontal teaching                              |  |
| 5        | Water ecology.                                |  |
| 5        | Ecological aspects of photosynthesis          |  |
| 6        | Adaptations to arid environments              |  |
| 6        | Secondary metabolites                         |  |
| 6        | plant-animal interactions                     |  |
| 6        | CITES, CBD                                    |  |
| 6        | Pollination biology                           |  |
| Hrs      | Practice                                      |  |
| 4        | methods to evaluate plant-animal interactions |  |
| 4        | CITES Not Detrimental Finding (NDF)           |  |
| 4        | Evolution of sucuclent plants: examples       |  |