



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche
ACADEMIC YEAR	2021/2022
MASTER'S DEGREE (MSC)	CONSERVATION BIOLOGY
SUBJECT	EVOLUTION AND CONSERVATION
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50506-Discipline del settore biodiversità e ambiente
CODE	21763
SCIENTIFIC SECTOR(S)	BIO/05
HEAD PROFESSOR(S)	MARRONE FEDERICO Professore Ordinario Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	98
COURSE ACTIVITY (Hrs)	52
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	1
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	MARRONE FEDERICO Monday 10:00 11:00 Via Archirafi 18, primo piano, stanza I8 Tuesday 15:00 17:00 Sede del Consorzio Universitario, corso Vittorio Emanuele, 92, 93100 Caltanissetta Wednesday 10:00 11:00 Via Archirafi 18, primo piano, stanza I8 Friday 10:00 11:00 Via Archirafi 18, primo piano, stanza I8

DOCENTE: Prof. FEDERICO MARRONE

PREREQUISITES	To achieve the educational objectives, a basic knowledge of Zoology is required.
LEARNING OUTCOMES	<p>Knowledge and understanding Acquisition and correct use of the scientific terminology, with a special focus on evolutionary topics and their implication in the frame of conservation activities. Understanding of the evolutionary processes underlying the current diversity patterns and how this should influence management activities.</p> <p>Applying knowledge and understanding Acquisition of the theoretical and practical knowledge needed for the characterization of different evolutionary processes and the consequent diversity patterns. Ability to plan research projects dealing with the evolutionary implications of the management of biological diversity.</p> <p>Making judgements Understanding and discernment of the evolutionary processes operating at different scales and of the different conservation value of different animal populations and communities.</p> <p>Communication Acquisition of a sound technical terminology in evolution and conservation. Ability of unambiguously express scientific concepts and opinions.</p> <p>Lifelong learning skills Ability to fully understand and interpret the data and analyses derived from literature and the web. Ability to develop and apply original research hypotheses.</p>
ASSESSMENT METHODS	The learning is assessed through an interview. The candidate has to properly answer three to six oral questions dealing with the programme. The assessment aims at evaluating 1) the knowledge and understanding of the subject, and 2) the acquisition of interpretation expertise and independent judgment. The candidate has to show an adequate knowledge, acquisition of interpretative skills, capacity of connecting and processing the arguments, as well as a relevant presentation capacity. The final grade will be expressed in thirtieth and the interview will be judged as "insufficient" when the student will demonstrate difficulty to focus on the proposed topics, a shallow knowledge of the arguments, and limited exposure ability. As the degree of details of the proven knowledge increases, the positivity of the grade will increase proportionally. The maximum score is obtained in case of excellent mastery and critical interpretation of the subject of the course, and a good exposition proved by the use of proper scientific language.
EDUCATIONAL OBJECTIVES	The class aims at providing the knowledge needed to understand how the correct study and understanding of evolutionary process is necessary to plan adequate conservation and management measures.
TEACHING METHODS	The class will be based on traditional lectures (40 hours, 5 CFU) and practical classes (12 hours, 1 CFU).
SUGGESTED BIBLIOGRAPHY	<p>1. L'evoluzione - D.J. Futuyma – Zanichelli</p> <p>2. Biogeography – Lomolino et al. – Sinauer Press</p> <p>Dispense fornite dal docente.</p>

SYLLABUS

Hrs	Frontal teaching
4	Introduction
8	Basics of Systematics and nomenclature
10	Morphology- and Molecular- based phylogenetic inferences
10	Conservation value of phylogenetic diversity
8	Phylogenetic diversity and prioritization of conservation measures
Hrs	Practice
12	Uses of softwares for phylogenetic analyses