



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche
ACADEMIC YEAR	2017/2018
MASTER'S DEGREE (MSC)	BIODIVERSITY AND ENVIRONMENTAL BIOLOGY
SUBJECT	ETHOLOGY
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50506-Discipline del settore biodiversità e ambiente
CODE	07783
SCIENTIFIC SECTOR(S)	BIO/05
HEAD PROFESSOR(S)	CAMMARATA MATTEO Professore Ordinario Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	102
COURSE ACTIVITY (Hrs)	48
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	CAMMARATA MATTEO Monday 09:00 11:30 Viale delle Scienze ED 16 Dipartimento della terra e del mare

DOCENTE: Prof. MATTEO CAMMARATA

PREREQUISITES	Basics on Zoology, Physiology, Animal anatomy.
LEARNING OUTCOMES	Knowledge and comprehension Main goal of this course is to provide both biological bases and critical tools of the animal behaviour including basic knowledge in the field of evolutionary biology, animal communication, behaviour and adaptation to the natural environment. Applying knowledge and comprehension Ability to critically examine the main etho-zoological topics by using the available scientific literature. Capacity to effectively and clearly describe ethological themes with appropriate terminology. Autonomous thinking Critical evaluation of ethological implications Ability to critical assessment of ethological implications in the field of biodiversity and nature conservation Communication ability Acquisition of communication skills according to the type of obtained results and the best format to deploy them either to scientific venues or general public audience. Learning ability Acquisition of proper ability to get updated in relation to the international literature acquisition including sampling methods, monitoring sessions, data analysis and representation.
ASSESSMENT METHODS	EXAM: Oral discussion. The student will be evaluated based on the level of knowledge of the subjects and the ability to link between them, the clarity and the use of a specialized scientific language. EVALUATION CRITERIA - assessment: excellent, grade: 30 - 30 cum laude, excellent knowledge of the topics of the course, excellent use of language, excellent analytical capacity, ability to apply knowledge to problem solving; - assessment: very good, grade: 26-29, good knowledge of the topics of the course, correct use of language, good analytical capacity, ability to apply knowledge to problem solving; - assessment: good, grade: 24-25, good knowledge of the main topics of the course, correct use of language, limited ability to autonomously apply knowledge to problem solving; - assessment: satisfactory, grade: 21-23, partial knowledge of the topics of the course, satisfactory use of language, limited ability to autonomously apply knowledge to problem solving; - assessment: sufficient, grade: 18-20, minimal knowledge of the main topics of the course and of technical language, scarce ability or inability to autonomously apply knowledge to problem solving; - assessment: fail, insufficient knowledge of the topics of the course.
EDUCATIONAL OBJECTIVES	The course aims to provide basic knowledge and methodology for the study of animal behaviour in an evolutionary perspective. The Ethology studies the behaviour of animals to describe the proximate and ultimate (functional) of the behaviour. The course trains students to study these subjects through the results of studies from basic and applied research.
TEACHING METHODS	Lectures,
SUGGESTED BIBLIOGRAPHY	Alcock John ETOLOGIA Zanichelli Campan- Scapini ETOLOGIA Zanichelli Materiale didattico distribuito dal docente.

SYLLABUS

Hrs	Frontal teaching
2	Ethology history
4	the animals behaviour . Proximate and ultimate causes , simple and complex behaviours. innate and acquired behaviours.
2	Environment perception and sensory receptors. Typology of stimuli responses, synchronization with predictable environmental changes and internal clocks
4	Ontogeny of behavior; Neuro-ethology
4	Behavioral genetics
4	Learning, Imprinting, Experience
2	The migratory behavior between genetics and learning
2	kinship, territoriality and aggressiveness, ritualization and communication
3	Social behavior
5	Animal Strategy: Avoiding predators and finding food
4	The survival value of the behavior
2	The colonial life
2	The Development of behavior
8	The evolution of reproductive behaviour and mating systems