



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze della Terra e del Mare		
ACADEMIC YEAR	2021/2022		
BACHELOR'S DEGREE (BSC)	NATURAL AND ENVIRONMENTAL SCIENCE		
SUBJECT	MARINE BIOLOGY		
TYPE OF EDUCATIONAL ACTIVITY	B		
AMBIT	50171-Discipline ecologiche		
CODE	01636		
SCIENTIFIC SECTOR(S)	BIO/07		
HEAD PROFESSOR(S)	VIZZINI SALVATRICE	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)			
CREDITS	6		
INDIVIDUAL STUDY (Hrs)	102		
COURSE ACTIVITY (Hrs)	48		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	3		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	VIZZINI SALVATRICE Monday 11:00 13:00 Aula docente: Dipartimento di Scienze della Terra e del Mare, via Archirafi 18, Il piano. Contattare preliminarmente il docente. Wednesday 11:00 13:00 Sede del Consorzio Universitario, corso Vittorio Emanuele, 92, 93100 Caltanissetta. Contattare preliminarmente il docente per email.		

DOCENTE: Prof.ssa SALVATRICE VIZZINI

PREREQUISITES	Basic knowledge of marine ecology, zoology and botany
LEARNING OUTCOMES	<p>Knowledge and comprehension Acquisition of knowledge related to characteristics and adaptations of marine organisms, species interactions and interactions between organisms and the environment, organization of major marine ecosystems. Acquisition of a specialised scientific language.</p> <p>Applying knowledge and comprehension Acquisition of application skills to analyse planktonic, benthic and nektonic marine components, and major marine ecosystems.</p> <p>Autonomous thinking Acquisition of evaluation skills and competences for interpretation of marine environmental data.</p> <p>Communication ability Acquisition of adequate skills and tools for communication, with regard to the presentation of the results of marine biology studies, communication and dissemination of information on issues concerning the topics of the lessons.</p> <p>Learning ability Acquisition of appropriate skills for the independent achievement of additional competences, with reference to: literature consultation, access to database and other information on the internet, basic cognitive tools for the continuous updating of knowledge.</p>
ASSESSMENT METHODS	<p>The evaluation is based on the results of a final oral exam, which consists of three questions on different topics. The student is evaluated based on the level of knowledge of the subjects and the ability to link between them, the clarity and the use of a specialised scientific language.</p> <p>Assessment 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.</p>
EDUCATIONAL OBJECTIVES	The aims of the course are to provide the students with a sound background on marine biology with particular reference to connections between oceanographic processes and biological processes and to the characteristics and functions of marine ecosystems.
TEACHING METHODS	Lectures
SUGGESTED BIBLIOGRAPHY	<p>Danovaro R. (2019) Biologia marina. Biodiversità e funzionamento degli ecosistemi marini. UTET Università. ISBN: 9788860085313 Castro P., Huber M.E. (2011) Biologia marina. McGraw-Hill. ISBN: 9788838666513</p> <p>Per approfondimenti: Levinton J.S. (2013) Marine biology: function, biodiversity, ecology. Oxford University Press. ISBN: 9780190625276</p>

SYLLABUS

Hrs	Frontal teaching
2	Introduction to marine biology and oceanography
8	Chemical and physical characteristics of seawater (light, temperature, pH, salinity, oxygen, chemical composition, tides and currents)
10	Characteristics, classification, adaptations and distribution of plankton, benthos and nekton
4	Characteristics and adaptations of marine organisms: algae and plants, invertebrates and vertebrates
4	Sampling techniques
20	Main marine ecosystems: beaches, estuaries and transitional waters, saltmarshes, mangrove forests, seagrass meadows, rocky intertidal and subtidal ecosystems, bioconstructions, coral reefs

