

<b>General Information</b>	
Academic subject	Geomorfologia Marina
Degree course	Scienze e gestione delle attività marittime
Curriculum	Marine Geomorphology
ECTS credits	6 CFU
Compulsory attendance	Fortemente consigliata
Language	Italiano

Subject teacher	Name Surname	email address	SSD
	Giuseppe Mastronuzzi	Giuseppe.mastronuzzi@uni ba.it	GEO04

ECTS credits details	Area	SSD	CFU/ETCS
Basic teaching activities	Geografia Fisica e Geomorfologia	GEO04	6

Class schedule	
Period	I SEM
Year	III
Type of class	Frontal Lessons

Time management	
Hours	100
In-class study hours	48
Out-of-class study hours	52

Academic calendar	
Class begins	October 1st, 2020
Class ends	January 29th, 2021

Syllabus	
Prerequisites/requirements	Basic knowledge of Earth Sciences and Physical Geography

<p>Expected learning outcomes</p>	<ul style="list-style-type: none"> <li>• <i>Knowledge and understanding</i> Acquisition of knowledge for the study of the physical marine and coastal landscape, its evolution and its dynamics. Acquisition of the basic knowledge and basic concepts of geomorphology through: i - classification and definition of genetic processes and landforms; ii – recognition, identification and naming of landforms; iii - understanding of the relationships between the endogenous and the exogenous dynamics active in our planet</li> <li>• <i>Synthesis skills</i> Particular attention will be paid to: i - the correlation of different processes for the definition of a landscape and its components; ii - the definition of different morphogenetic and morphoclimatic world systems; iii - the interactions of physical processes with anthropic activity.</li> <li>• <i>Applying knowledge and understanding</i> Acquisition of knowledge regarding the applicative aspect of the geomorphology for the correct management of the marine and coastal environments.</li> <li>• <i>Making judgements</i> Acquisition of the critical capacity with respect to the available knowledge in order to identify the most suitable survey techniques for: i - the critical study and the classification of the landforms of marine and coastal landscape and of the environments that characterize it; ii - the identification of their dynamics in relation to human activities.</li> <li>• <i>Communication skills</i> Acquisition of the ability to: i - written and graphic presentation of fundamental principles and concepts; ii - description of the techniques and procedures for data acquisition, processing and interpretation using appropriate language.</li> <li>• <i>Learning skills</i> Acquisition of the ability to deepen the understanding of geomorphological concepts by developing autonomous reasoning.</li> </ul> <p><i>The verification of the skills acquired will be assessed on the basis of the communication ability shown during the course, the tests and the written and oral examination.</i></p>
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The course, which lasts 48 hours, is aimed at learning the basics and the deepening at the level of the three-year degree of the general principles that describe the dynamics of the sea and of the landforms of the seabed and coastal area.

Credit No.1 (6 hours)

(6 hours) The planet earth: the form. The energy of the planet: endogenous energy, exogenous energy. Weather and climate; The water cycle, the hydrological balance. Relief energy concept: potential energy and kinetic energy, the basic level.

Credit No. 2 (7 hours)

(4 hours) The internal structure of the earth; formation, evolution and classification of continental margins, oceanic crust, mid-oceanic ridge.

(3 hours) The shapes of the earth: morphosculptures, morphostructures, geosutures, continental plates and ocean basins. The ipsographic curve. Endogenous and exogenous landforms, primary and secondary landforms.

Credit No. 3 (9 hours)

(3 hours) Morphology of the seabed: continental shelf and continental slope, abyssal plains, oceanic ditches, mid-oceanic dorsal, guyot and pitons, hot spots.

(4 hours) Physical landscape modeling processes: endogenous and exogenous agents and processes. Morphogenetic (action - process - form) and morphoclimatic systems (climate - process - form): active, inactive, relict and fossil landforms; polygenetic forms. Polygenetic landscapes, polycyclic landscapes.

(2 hours) Verification

Credit 4 (10 hours)

(4 hours) Definition of the sea level: long-cycle sea level Changes (eustatism). instantaneous sea level changes: tsunamis and storm surge.

(6 hours). The movements of the sea: currents, tides, waves and sesse; cause of the currents, tides, wave motion, sesse. Wave characters: fetch; the wave motion in deep and shallow water: reflection, refraction, diffraction.

Credit No. 5 (10 hours)

(2 hours) The coastal environment, the shore line and the coastline. Classification of coasts and transition environments.

(3 hours) The rocky coasts. Cliff and high rocky coasts, low rocky coasts: zoning of the rocky coasts; the dynamics of a cliff. Coral reefs

(2 hours) The beaches. Classification.

(3 hours) Tidal flats, lagoons and river mouths.

Credit No. 6 (6 hours)

(4 hours) geomorphological cartography: nautical charts and topographic maps.

(2 hours) verification

Course program	
Bibliography	Lupia Palmieri E., Parlotto M. (2008) Il Globo terrestre e la sua evoluzione. Zanichelli. Ciccacci S. (2015) Le Forme del Rilievo. Atlante Illustrato di Geomorfologia. Mondadori
Notes	Books are integrated with indication of: ì - scientific articles and examples of geomorphological cartography; ìì - of web pages; ììì - audiovisual
Teaching methods	Lectures are supported by: ì - presentations with PPT; ìì - audiovisuals; ììì - proposition of problems to be solved individually and/or in groups.
Assessment methods	Oral and written examination, exonerations.
Evaluation criteria	<ul style="list-style-type: none"> <li>• <i>Knowledge and understanding</i> The student must be able to use, correlating them, the basic knowledge acquired to describe and classify the landforms of the marine and coastal landscape and the processes, past and still active that have shaped them.</li> <li>• <i>Synthesis skills</i> The student must show that he is able to synthesize complex concepts in texts and figures of which he is the author.</li> <li>• <i>Making judgements</i> The student must be able to identify the most appropriate methodological choices to solve a problem</li> <li>• <i>Communication skills</i> The student must demonstrate to be able to transmit the level of understanding of principles and methods of investigation with clarity and properties of language, which do not give rise to ambiguity or misunderstanding.</li> <li>• <i>Learning skills</i> The student must demonstrate that he is able to enrich the understanding of the topics through individual in-depth courses that show his ability to gain further knowledge starting from the base of the contents transmitted during the course.</li> </ul>
Further information	