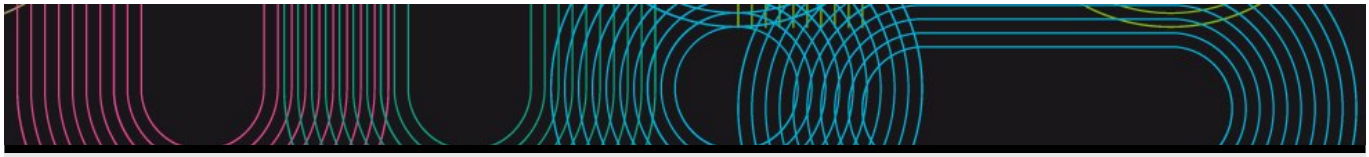

IDENTIFYING DATA				
Geological Processes in Continental Margins and Ocean Basins				
Subject	Geological Processes in Continental Margins and Ocean Basins			
Code	V10M153V01104			
Study programme	Máster Universitario en Oceanografía			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	5	Mandatory	1st	1st
Teaching language	#EnglishFriendly Spanish			
Department				
Coordinator	Pérez Arlucea, Marta María			
Lecturers	Alejo Flores, Irene Francés Pedraz, Guillermo García Gil, María Soledad Nombela Castaño, Miguel Angel Pérez Arlucea, Marta María			
E-mail	marlucea@uvigo.es			
Web	http://masteroceanografia.com			
General description	This subject tackles the knowledge of the geological processes that take place in the marine field from the line of coast until the abyssal plain. They will analyse the processes of transport and sedimentation that control the movement of sediment and the sedimentary structures resultant in the different marine environments. Also it tackles the sismoestratigraphical interpretation, like tool for the interpretation of sequences and geological cycles in the differents sedimentary environments. The practical content of the subject will consist in a field trip of several days of length to see different ancient sedimentary environments. It proposes visit the neogen basins of Sorbas; Nijar and Tabernas in the province of Almería for the characterisation in situ of the lithology, the facies and the sedimentary architecture of a wide variety of environments (alluvial fans, beaches, deltas, reefs, carbonatic shelfs, evapories, slumps, debris flows, turbidites, pelagic), as well as the sedimentary processes and tectonic that have controlled his origin and space-temporary evolution .			

Training and Learning Results	
Code	
A3	Students who have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments
A4	Students who can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and nonspecialist audiences clearly and unambiguously
B1	The students will understand in a detailed and based form the theoretical and practical aspects and the work methodology of the oceanography
B5	The students will be able to develop the sufficient autonomy to participate in research projects and scientific collaborations, especially in interdiscipinary contexts
C3	The students will analyse situations and specific oceanographic conditions related with the global change
C4	The students will be able to apply in the practice the obtained knowledge and issue resolutions and judgments in the different oceanography fields
D1	The students will know and will be able to apply the scientific method in the academic and research fields.
D3	The students will be able to communicate the obtained information and their conclusions in a effective way to the general public, to other scientists and to the competent authorities, listening and answering of effective form and, using an appropriate language to the audience and to the context

Expected results from this subject	
Expected results from this subject	Training and Learning Results
Capacity to interpret seismic profiles. Recognise inside the context of the sequential stratigraphy the courtships *sedimentarios and his relation with the stages *eustáticas.	A3 B1 B5 C3 C4 D1 D3
Capacity for the integration of data and interpretation of the physical and geological processes in oceanic environments.	A3 B1 B5 C3 C4 D1 D3
Capacity for the recognition and interpretation of sequences and cycles.	A3 B1 C3 C4 D1
Capacity to identify the means *sedimentarios, his processes associated and the factors that have controlled his evolution *espaciotemporal.	A3 B1 C3 C4 D1
Capacity to evaluate the economic potential of the oceanic basins with regard to diverse geological resources.	A3 A4 B1 C4 D1 D3

Contents	
Topic	
T1.Tectonic and geomorphological configuration of the oceanic bottom	The sub-topic coincides with the topic
T2. Geological processes in coastal environments	The sub-topic coincides with the topic
T3. Processes in of continental shelf environments	The sub-topic coincides with the topic
T4. Origin and distribution of marine sediments	The sub-topic coincides with the topic
T5. Processes of resedimentation associated to the continental slope: turbidites	The sub-topic coincides with the topic
T6. Processes in hemipelagic and pelagic environments	The sub-topic coincides with the topic
T7. Evolution of continental margins and oceanic basins. Interaction between the internal and external geological processes	The sub-topic coincides with the topic
T8. Seismic-stratigrafical interpretation of marine sedimantary environments..	The sub-topic coincides with the topic
P1. Geological characterisation of coastal environments	Practical contents developed in the Field Trip of Almería
P2. Identification and characterisation of shelf environments	Practical contents developed in the Field Trip of Almería
P3. Characterisation of continental slope environments	Practical contents developed in the Field Trip of Almería
P4. Caracerización of pelagic environments	Practical contents developed in the Field Trip of Almería
P5. Space-temporary evolution of continental margins and oceanic basins. Filling of basins: budget-tectonic-sedimentation relations	Practical contents developed in the Field Trip of Almería

Planning			
	Class hours	Hours outside the classroom	Total hours
Lecturing	23	35	58

Introductory activities	2	0	2
Studies excursion	20	20	40
Field practice	0	10	10

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	It consists in the exhibition of contents by part of the professor, analysis of competitions, explanation and demonstration of capacities, skills and knowledges in the classroom, using like methodology the participatory masterclass and in which the function of the professor is to explain the theoretical foundations of the matter.
Introductory activities	It will contextualise the subject inside the *master as well as the zone of exit of studies.
Studies excursion	Session of work *grupal in practices of field, under the supervision of the professor, making possible the significant construction of the knowledge through the interaction and activity of the student and his contact with the reality where has to apply his knowledges. Attendance is compulsory. It will do a route by the outcrops *Neógenos of several basins *sedimentarias of the *sureste peninsular in which there is glorious examples of half *sedimentarios marine fossils, that include platforms *carbonatadas, *turbiditas, *evaporitas, reefs, *sedimentación *pelágica, etc.
Field practice	

Personalized assistance

Methodologies	Description
Lecturing	The students will be attended of personal form by any one of the professors that give the matter, by means of concerted previous appointment by email. Likewise, they will be attended in front of any query during the development of the lessons *magistrales.
Studies excursion	The students will be attended of personal form by any one of the professors that give the matter, by means of concerted previous appointment by email. Likewise, they will be attended in front of any query during the development of the exits of studies.
Introductory activities	The students will be attended of personal form by any one of the professors that give the matter, by means of concerted previous appointment by email. Likewise, they will be attended in front of any query during the development of the introductory activities.

Assessment

	Description	Qualification	Training and Learning Results
Lecturing	They will evaluate the knowledges purchased by means of proofs written and/or oral tectonic Evolution. Three *entregables 30% seismic Stratigraphy: 2 *entregables; 20% Processes *sedimentarios in the coast: 10%	60	

Other comments on the Evaluation

The official dates for the proofs of evaluation can consult in:&*nbsp;http://masteroceanografia.com/horarios/requires of the students that *curse this matter a responsible and honest behaviour. It considers inadmissible any form of fraud (copy or plagiarism) directed to *falsear the level of knowledges and skills reached in all type of proof, report or work. The fraudulent behaviours will be able to suppose suspend the subject during a complete course.
It will carry an internal register of these performances so that, in case of *reincidencia, request the opening to the rectorship of a disciplinary
The fieldtrip is of experimental character and therefore his assistance is compulsory. The students, in case of no assistance, will not be able to opt to a proof of global evaluation. All tests can be evaluated on the second chance. Nonattendance to compulsory activities precludes the possibility to be evaluated in the second chance.

Sources of information

Basic Bibliography

Arche, A. (ed.), **Sedimentología**,

Chiocci, F.L. y Chivas, A.R. (eds.), **Continental Shelves of the World**,

Huneke, H. y Mulder, T., **Deep-sea sediments**,

Complementary Bibliography

Rebesco, M. and Camerlenghi, A. (eds.), **Contourites**,

Nittrouer, C.; Austin, J.; Field, M.; Kravitz, J.; Syvitski, J.; Wiberg, P. (eds.), **Continental margin sedimentation: from sediment transport to sequence stratigraphy**,
Mather, A., **A Field guide to the neogene sedimentary basins of the Almería province, SE Spain**,
Braga, J.C. et al., **Geología del Entorno Árdido Almeriense. Guía Didáctica de Campo**,
CIESM Workshop, **The Messinian Salinity Crisis from mega-deposits to microbiology. A consensus report**,

Recommendations

Subjects that it is recommended to have taken before

Geological Oceanography/V10M153V01CF104

Other comments

For those students that have not graduated in Sciences of the Sea or in Geology is fundamental to have *cursado the subject of Geological Oceanography.