Universitat de les Illes Balears

Academic year	2017-18
Subject	20141 - Marine Biology
Group	Group 1, 2S, GBIO
Syllabus	G
Language	English

Syllabus

Subject

Name	20141 - Marine Biology
Credits	2.4 in-class (60 hours) 3.6 distance (90 hours) 6 total (150 hours).
Group	Group 1, 2S, GBIO (Campus Extens)
Period	Second semester
Language of instruction	English

Lecturers

Lecturers	Office hours for students					
	Starting time	Finishing time	Day	Start date	End date	Office
Ana María Abril Duro	You need to book a date with the professor in order to attend a tutorial.					
Guillem Mateu Vicens guillem.mateu@uib.es	You need to book a date with the professor in order to attend a tutorial.					

Context

The "Marine Biology" course consists ofageneral approach to the knowledge of the ocean dwellers considering thephysico-chemical characteristics of the marine environment. Emphasis is placed on the marine origin of life and how the organisms have modified the environment and adapted, at the same time, to arising conditions. The program includes notions about the origin of the oceans and their characteristics, the appearance of the first forms of life, the main marine taxa, the large communities (benthos, plankton, nekton, neuston) and their adaptation to the environment.

Requirements

Recommended

It is highly recommended that the student has passed Zoology and Botany courses.

Skills

Specific

* Better knowledge of the majority species of plankton, necton and marine benthos. -Recognition of especially fragile, vulnerable and regressing species. - Identification of the most representative habitats and ecosystems of the Mediterranean and their biodiversity. - Assessment of the functional aspects of marine ecosystems and the connection between compartments (plankton-nekton-benthos)..

Date of publication: 02/08/2017

Syllabus

Generic

* Obtaining an integrated vision of the functioning of marine ecosystems. - Development of behaviours and attitudes that favor study and learning autonomously. - Filtering, synthesis and understanding of the information obtained by various channels, especially obtained from the web..

Basic

* You may consult the basic competencies students will have to achieve by the end of the degree at the following address: http://www.uib.eu/study/grau/Basic-Competences-In-Bachelors-Degree-Studies/

Content

Theme content

Topics. Syllabus

1. Introduction to Marine Biology
2. The ocean
3 . Diversification of organisms in the marine environment
4. Plankton
5. Bentos
6. Necton
7. The Mediterranean Sea: ecosystems and communities

Teaching methodology

At the beginning of the semester, the course schedule will be available through the UIBdigital platform. This timetable shall include the dates for delivering the works. In addition, the teacher will inform about any eventual change of the working plan.

In-class work activities

Modality	Name	Typ. Grp.	Description	Hours
Theory classes	visu	Large group (G)	The students will have to recognize the marine organisms from a picturedatabase available in campus extens. The identification skills will be evaluated during the final exam.	1
Theory classes		Large group (G)	Expository method supported by diagrams and sketches on the blackboard and power point presentations. Active participation will be evaluated positively.	47
Practical classes		Large group (G)	Samples will be collected during the short field trips and analyzed at thelab. Moreover, observations of the *Posidonia oceanica* meadows will be performed during the snorkeling activity. The resulting data will be presented by the different	12

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Modality	Name	Typ. Grp.	Description	Hours
			groups to the rest of the class in a short power point. Although non-mandatory, the use of English in both the poster and the presentation is strongly encouraged. English skills WILL NOT BE EVALUATED.	

At the beginning of the semester a schedule of the subject will be made available to students through the UIBdigital platform. The schedule shall at least include the dates when the continuing assessment tests will be conducted and the hand-in dates for the assignments. In addition, the lecturer shall inform students as to whether the subject work plan will be carried out through the schedule or through another way included in the Campus Extens platform.

Distance education work activities

Modality	Name	Description	Hours
Individual self-study	Case solving	The student will solve two practical cases based on real situations, using own observations, available scientific literature, technical reports, etc.	30
Group or individual self-study	Poster/Oral presentation	Each group must select a topic related to the course contend and perform a bibliographic review from scientific literature. Results will be synthetized and presented as a poster that will be explained by one or more members of the group. Although non-mandatory, the use of English in both the poster and the presentation is strongly encouraged. English skills WILL NOT BE EVALUATED.	60

Specific risks and protective measures

The learning activities of this course do not entail specific health or safety risks for the students and therefore no special protective measures are needed.

Student learning assessment

visu

Modality	Theory classes
Technique	Short-answer tests **(retrievable)**
Description	The students will have to recognize the marine organisms from a picturedatabase available in campus extens. The identification skills will be evaluated during the final exam.
Assessment criteria	Recognition up to species level of the organisms shown in a power point during the final exam.

Final grade percentage: 10% with minimum grade 5

Date of publication: 02/08/2017

Theory classes

Modality	Theory classes
Technique	Extended-response, discursive examinations **(retrievable)**
Description	Expository method supported by diagrams and sketches on the blackboard and power point presentations. Active participation will be evaluated positively.
Assessment criteria	Answers will be accepted in English, Spanish or Catalan. Precision, concision and adequate use of technical and scientific terms will be evaluated positively.

Final grade percentage: 40% with minimum grade 4.5

Practical classes

Modality	Practical classes
Technique	Oral tests **(retrievable)**
Description	Samples will be collected during the short field trips and analyzed at thelab. Moreover, observations of the Posidonia oceanica meadows will be performed during the snorkeling activity. The resulting data will be presented by the different groups to the rest of the class in a short power point. Although non-mandatory, the use of English in both the poster and the presentation is strongly encouraged. English skills WILL NOT BE EVALUATED.
Assessment criteria	Oral presentation of 10 min + 5 min for questions. Adequate terminology, coherence, quality of the presentation and ability to answer the questions will be positively evaluated. The use of English is strongly encouraged. English skills WILL NOT be evaluated.

Final grade percentage: 20% with minimum grade 5

Case solving

Modality	Individual self-study
Technique	Real or simulated task performance tests **(retrievable)**
Description	The student will solve two practical cases based on real situations, using own observations, available scientific literature, technical reports, etc.
Assessment criteria	The student must write a short report (max. 1 sheet, both sides) providing solutions to the study case. These solutions must be supported by technical and scientific criteria (literature, databases).The use of English is strongly encouraged. English skills WILL NOT be evaluated.

Final grade percentage: 15% with minimum grade 4

Poster/Oral presentation

Modality	Group or individual self-study
Technique	Oral tests **(retrievable)**
Description	Each group must select a topic related to the course contend and perform a bibliographic review from scientific literature. Results will be synthetized and presented as a poster that will be explained by one

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	or more members of the group. Although non-mandatory, the use of English in both the poster and the presentation is strongly encouraged. English skills WILL NOT BE EVALUATED.
Assessment criteria	Oral presentation of 10 min + 5 min for questions. Adequate terminology, coherence, quality of the presentation and ability to answer the questions will be positively evaluated. The use of English is strongly encouraged. English skills WILL NOT be evaluated.

Final grade percentage: 15% with minimum grade 5

Resources, bibliography and additional documentation

Basic bibliography

- Archiduque Luis Salvador. 1880. Las Baleares. La pesca.
- Ballesteros, E., Llobet, T. 2015. La vida marina del Mar Mediterráneo. Edit. Gallocanta
- Calvin, J. C. 1995. El ecosistema marino mediterráneo. Guía de su flora y fauna.
-Cognetti, G.; Sara, M. y Magazzu G. 2001. Biología Marina. Ariel Ciencia.
- Fincham, A. A. 1987. Biología marina básica. Editorial Omega.
- Gállego, L. 2002.vertebrados ibéricos: peces, anfibios y reptiles. UIB.
- Gállego, L. 2003. Vertebrados ibéricos: mamíferos. UIB.
- Hofrichter , R. El mar Mediterráneo. Tomo II, parte I.
- Karleskint, G. 1998. Introduction to Marine Biology. Saunders College Publishing.
- Moreno, I. 2017. La Mediterrània. Una mar que ens uneix. Lleonard Muntaner Editor.
- Nybakken. 1997. Marine Biology
- Pérès, J. M. 1961. Océanographie biologique et biologia marine. Presses Univ. de France.
- Riedl, Rupert. 1986. Fauna y flora del mar Mediterráneo. Ed. Omega.
- Rodríguez, C., Ballesteros, E., Boisset, F. 2013.GUIA DE LAS MACROALGAS Y FANEROGAMAS MARINAS DEL MEDITERRANEO OCCIDENTAL. Edit. Omega
- varios autores. 1981-1992. Història Natural dels Països Catalans. varis volums. Enciclopèdia Catalana
- varios autores. 2013. Atles Ecosistemes dels Països Catalans. Enciclopèdia Catalana

Complementary bibliography

- Complementary literature such as scientific papers will be provided along the course.

Other resources

- World Register of Marine Species WoRMS.http://www.marinespecies.org/

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