



Teaching Guide

Identifying Data					2021/22
Subject (*)	Water quality and facilities	Code	610489107		
Study programme	Mestrado Universitario en Acuicultura (Plan 2018)				
Descriptors					
Cycle	Period	Year	Type	Credits	
Official Master's Degree	1st four-month period	First	Obligatory	3	
Language					
Teaching method	Face-to-face				
Prerequisites					
Department	BiologíaDepartamento profesorado másterQuímica				
Coordinador	Cremades Ugarte, Javier	E-mail	javier.cremades@udc.es		
Lecturers	Cremades Ugarte, Javier	E-mail	javier.cremades@udc.es		
Web	http://www.usc.es/posgrao/macucg/2011_act/es/intro.php				
General description					
Contingency plan	<p>1. Modifications to the contents</p> <p>2. Methodologies</p> <p>*Teaching methodologies that are maintained</p> <p>*Teaching methodologies that are modified</p> <p>3. Mechanisms for personalized attention to students</p> <p>4. Modifications in the evaluation</p> <p>*Evaluation observations:</p> <p>5. Modifications to the bibliography or webgraphy</p>				

Study programme competences

Code	Study programme competences

Learning outcomes

Learning outcomes	Study programme competences

Contents

Topic	Sub-topic
Indicadores de calidade.	
Biofiltración	Nitrificación, desnitrificación.
Desinfección	Conceptos básicos. Métodos de desinfección.
Instalacións e Enxeñería en Acuicultura.	
Tipos de Instalacións ou Sistemas de Cultivo.	
Compoñentes técnicos dunha planta acuícola.	
Unidades de produción pechadas e Gaiolas mariñas.	

Planning

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Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Guest lecture / keynote speech		12	36	48
Seminar		5	11	16
Laboratory practice		4	2	6
Mixed objective/subjective test		1.5	0.5	2
Personalized attention		3	0	3

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

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	Nas clases presenciais exporáñse os fundamentos teóricos da materia e estableceranse os criterios para que o alumno desenvolva os conceptos básicos mediante lecturas e traballos. Nas devanditas clases buscarase a interacción entre os profesores e os alumnos.
Seminar	Nos seminarios preténdese incidir na aplicación dos conceptos teóricos.
Laboratory practice	Nas prácticas realizarase unha visita técnica a unha instalación de produción acuícola ou de tratamento de auga, e caso de ser posible veráñse as metodoloxías de control da calidade da auga.
Mixed objective/subjective test	Ao final do curso, nas datas previstas para iso, realizarase unha proba escrita para valorar os coñecementos adquiridos polo alumno.

Personalized attention	
Methodologies	Description
Guest lecture / keynote speech	O profesor atenderá ao alumno na resolución das dúbidas que lle poidan xurdir. Levarase a cabo no horario de tutorías do que dispón o profesor.

Assessment			
Methodologies	Competencies	Description	Qualification

Assessment comments

Sources of information	
Basic	<ul style="list-style-type: none"> - Alley (2007). Water Quality Control Handbook. McGraw-Hill Professional - Barnabe, G. et al. (2000). Ecology and Management of Coastal Waters: The Aquatic Environment. Springer Praxis Books - Beaz Paleo, J.M. (2007). Ingeniería de la Acuicultura Marina. Instalaciones en tierra. . Observatorio Español de Acuicultura, CSIC - Beaz Paleo, J.M. (2008). Ingeniería de la Acuicultura Marina. Instalaciones de peces en el mar. Observatorio Español de Acuicultura, CSIC - Metcalf-Eddy (1995). Ingeniería de aguas residuales. Tratamiento, vertido y reutilización. McGraw-Hill - Murdock (1993). Fundamental Fluid Mechanics for the Practicing Engineer. CRC - O.-I. Lekang (2007). Aquaculture Engineering. Blackwell - Sánchez-Juny, M. E. Bladé, J. Puertas (2007). Hidráulica. Universidade de A Coruña - Yoo and Boyd (1994). Hydrology and Water Supply for Pond Aquaculture. Springer
Complementary	<ul style="list-style-type: none"> - American Water Works Association (2003). Calidad y tratamiento del agua. Mac Graw Hill, Madrid. - AENOR (1999). Calidad del agua. AENOR. Madrid.



Recommendations
Subjects that it is recommended to have taken before
Subjects that are recommended to be taken simultaneously
Subjects that continue the syllabus
Other comments

(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.