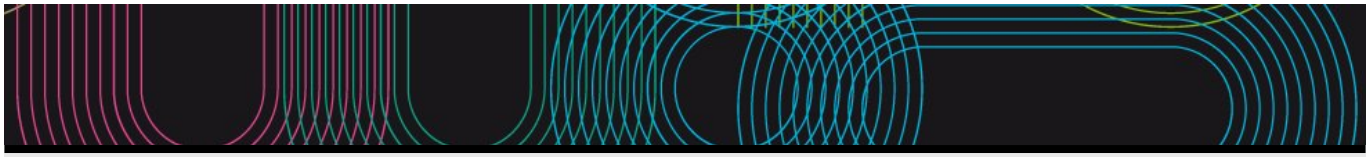

IDENTIFYING DATA				
The design of new specific drugs (pharmacology and pharmacogenomics)				
Subject	The design of new specific drugs (pharmacology and pharmacogenomics)			
Code	V02M074V11234			
Study programme	Máster Universitario en Biotecnología Avanzada			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	2nd
Teaching language	Spanish			
Department				
Coordinator	González Fernández, María África Rodríguez Arguelles, María Carmen			
Lecturers	González Fernández, María África Rodríguez Arguelles, María Carmen Simón Vázquez, Rosana			
E-mail	mcarmen@uvigo.es africa@uvigo.es			
Web	http://http://masterbiotecnologiaavanzada.com/index.php/plan-docente/materias			
General description	New drugs with application in therapy, diagnosis and teragnosis			

Training and Learning Results	
Code	
A1	Possess and comprise knowledges that contribute a base or opportunity to be original in the development and/or aplication of ideas, often in a context of innovation
A2	Aplication of the knowledges acquired and problem solving in new surroundings or little known in wider contexts (or multidisciplinary) related with the area of study
A4	Communicate findings and the ultimate knowledge and rationale underpinning them to specialist and non-specialist audiences in a clear and unambiguous way
A5	Acquire the learning skills that will enable them to continue studying in a largely self-directed or autonomous way.
C35	Designing, developing and producing vaccines and drugs
C36	Identify the genetic factors responsible for variable responses to drugs, nutrients and xenobiotics and know how to perform them in the design of new specific drugs.
D1	Understand the meaning and application of the gender perspective in the different fields of knowledge and in practice with the aim of achieving a more just and egalitarian society
D2	Oral and writing communication in the Galician language
D3	Sustainability and environmental commitment. Commit to sustainability and the environment. Fair use, responsible and resource efficient

Expected results from this subject	
Expected results from this subject	Training and Learning Results
Designing, developing and producing vaccines and drugs	C35
Identify the genetic factors responsible for variable responses to drugs, nutrients and xenobiotics and know how to perform them in the design of new specific drugs.	C36

Identify and extract the literature specialized the necessary information for the resolution of the problems posed. Use scientific and independent criteria for taking decisions. Use a suitable logical structure and an ideal language to the no-skilled public and defend it in front of experts of this thematic. A predisposition to update and adapt to the new technology of the sector. Comprise and practice the dynamics of work in team and development of managerial competitions and organization	A1 A2 A4 A5 C35 C36 D1 D2 D3
Leadership and capacity of coordination. Sensitization to the quality, the environmental respect, the responsible consumption of resources, and the recovery of waste.	A1 A5 C35 C36 D1 D2
The capacity of work in a team multi-departmental inside the company. The capacity of work in a context of sustainability, characterized by: sensitivity of by half and by the different organisms that integrate it, and awareness by the sustainable development. Critical reasoning and deep respect by the ethical and the intellectual integrity.	A1 A5 C35 C36

Contents	
Topic	
New metallic compounds with application in Medicine	Applications in therapy and in diagnosis
Nanomedicine	Applications in therapy and diagnosis. Nanotheragnosis
Nanotoxicity	Toxicity in vivo and in vitro
Antibodies	New perspectives: design and therapies
Pharmacogenetics	Genetic factors that influence drug response

Planning			
	Class hours	Hours outside the classroom	Total hours
Lecturing	16	16	32
Seminars	2	0	2
Mentored work	0	15	15
Presentation	3	3	6
Objective questions exam	2	18	20
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Lecturing	Exhibition by part of the professor of the contents of the matter object of study, theoretical bases and/or guidelines of a work, exercise or project to develop by the student.
Seminars	They will propose cases/exercises related with the exposed in the masterclasses
Mentored work	The student of individual way elaborates a document on the thematic of the matter in format poster.
Presentation	Presentation and exhibition by part of the student in shape individual or in group of a subject related with the contents of the matter

Personalized assistance	
Methodologies	**Description**
Lecturing	The teacher will attend the queries of the students related to the matter: It realised face-to-face or by email
Presentation	The teacher will attend the queries of the students related with the work to present giving orientation support and motivation in the process of learning. It realised face-to-face or through the email
Seminars	In the seminars will resolve doubts or questions related with the subjects proposed
Mentored work	The teachers will attend to the queries of the students related to the work to present providing orientation support and motivation in the process of learning. It made in face-to-face form or by the email

Assessment			
	Description	Qualification	Training and Learning Results

Seminars	Resolution of cases/exercises proposed	10	A2 A4	C36	D1
Mentored work	he student, of individual way elaborates a document on the thematic of the matter in formatposter.	25	A4		D1 D2 D3
Presentation	Presentation/exhibition by part of the alumnado of a subject related with the contents of the matter	25	A2 A4 A5		D1 D3
Objective questions exam	It will realise an examination with questions type test to evaluate the knowledges purchased	40	A1 A2 A5	C35 C36	D1 D2 D3

Other comments on the Evaluation

Students are recommended to check the website https://masterbiotecnologiaavanzada.com/ for the exam dates and course calendar.

Sources of information

Basic Bibliography

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Complementary Bibliography

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Steinitz, M. (Ed.), **Human monoclonal antibodies methods and protocols**, 2, Humana Press, 2019

Wood, C.R., **Antibody Drug Discovery**, World scientist, 2011

Selvan, T, Narayanan, K,, **Introduction to Nanotheranostics**, Springer, 2016

Dobrovolskaia, M.A., McNeil S.E., **Handbook of immunological properties of engineered nanomaterials**, Springer, 2016

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Feng, T., Zhao, Y.i, **Nanomaterial-Based Drug Delivery Carriers for Cancer Therapy**, Springer, 2017

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Zivic, F. (Ed), **Biomaterials in clinical practice**, Springer, 2018

Dai, Z. (Ed), **Advances in Nanotheranostic I**, Springer, 2016

Recommendations

Other comments

It is recommended that students have sufficient knowledge of scientific English.