



Teaching Guide

Identifying Data				
Subject (*)			Code	2019/20
Design and management of research projects			614522023	
Study programme				
Mestrado Universitario en Bioinformática para Ciencias da Saúde				
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	1st four-month period	Second	Obligatory	3
Language	SpanishGalician			
Teaching method	Face-to-face			
Prerequisites				
Department	Ciencias Biomédicas, Medicina e FisioterapiaCiencias da Computación e Tecnoloxías da InformaciónComputaciónDereito PrivadoDereito PúblicoEnxeñaría de Computadores			
Coordinador	Martin Santamaria, Maria Jose		E-mail	maria.martin.santamaria@udc.es
Lecturers	Ballesteros Soriano, Alfonso Martin Santamaria, Maria Jose Pazos Sierra, Alejandro Rodriguez Brisaboa, Nieves		E-mail	alfonso.ballesteros@udc.es maria.martin.santamaria@udc.es alejandro.pazos@udc.es nieves.brisaboa@udc.es
Web	https://moodle.udc.es/course/view.php?id=47531			
General description	O obxectivo deste curso é proporcionar ao alumno os fundamentos necesarios que lle permitan xestionar adecuadamente todo o proceso de xeración, xestión e comunicación dun proxecto de investigación.			

Study programme competences

Code	Study programme competences
A10	CE10 - Draft a bioinformatics research project, anticipating obstacles and possible alternative strategies to resolve them.
B3	CB8 - Students to be able to integrate knowledge and deal with the complexity of making judgements from information that could be incomplete or limited, including reflections on the social and ethical responsibilities linked to the application of their skills and judgments
B4	CB9 - Students should know how to communicate their findings, knowledge and latest reasons underpinning them to specialized and non-specialized audiences in a clear and unambiguous way
B5	CB10 - Students should possess learning skills that allow them to continue studying in a way that will largely be self-directed or autonomous.
B8	CG3 - Be able to work in a team, especially of interdisciplinary nature
C1	CT1 - Express oneself correctly, both orally writing, in the official languages of the autonomous community
C2	CT2 - Dominate the expression and understanding of oral and written form of a foreign language
C4	CT4 - Be able to analyze the real situation, formulate and implement solutions based on knowledge and aimed at the common good and the exercise of open, educated, critical, committed, democratic and solidary citizenship.
C5	CT5 - Understand the importance of entrepreneurial culture and know the means available to enterprising people
C8	CT8 - Rating the importance that has the research, innovation and technological development in the socio-economic and cultural progress of society

Learning outcomes

Learning outcomes	Study programme competences		
Xestionar adecuadamente todo o proceso de xeneración, xestión e comunicación dun proxecto de investigación no campo da bioinformática	AJ10	BJ3 BJ4 BJ5 BJ8	CJ1 CJ2 CJ4 CJ5 CJ8

Contents

Topic	Sub-topic
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Deseño e Xestión de proxectos de investigación	- Metodoloxía para a experimentación científica - Xestión de proxectos de investigación - Bioética, protección de datos e propiedade intelectual - Técnicas de presentación e comunicación de resultados
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Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Supervised projects	B3 B8 C1 C2 C4	4	16	20
Seminar	A10 C5 C8	2.5	0	2.5
Problem solving	A10 B3 B4 B8 C1 C2 C4	4	8	12
Guest lecture / keynote speech	A10 B4 B5 C5 C8	15	22.5	37.5
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
Supervised projects	Os traballos tutelados permiten ao alumno familiarizarse dende un punto de vista práctico coas cuestións expostas nas clases teóricas.
Seminar	Presentación de exemplos de proxectos de investigación no ámbito da bioinformática
Problem solving	Posta en práctica dos conceptos explicados nas sesións maxistrais.
Guest lecture / keynote speech	Exporanse en clases teóricas os conceptos que o alumno debe coñecer para empezar unha carreira investigadora con éxito e desenvolver proxectos colaborativos utilizando as ferramentas dispoñibles.

Personalized attention	
Methodologies	Description
Supervised projects Problem solving	A atención personalizada na realización dos traballos tutelados e na solución de problemas será imprescindible para dirixir aos alumnos no desenvolvemento do traballo/problemas que se lle asignen.

Assessment			
Methodologies	Competencies	Description	Qualification
Supervised projects	B3 B8 C1 C2 C4	Avaliación dos traballos tutelados desenvolvidos polo alumnos.	60
Problem solving	A10 B3 B4 B8 C1 C2 C4	Avaliación da posta en práctica dos coñecementos adquiridos.	40

Assessment comments

Sources of information	
Basic	- M. Anandarajan and A. Anandarajan (2010). e-Research Collaboration Theory, Techniques and Challenges. Springer Berlin Heidelberg - J. López Yepes (1995). La aventura de la investigación científica: guía del investigador y del director de investigación. Síntesis - Joshua Schimel (2011). Writing science. Oxford University Press - Barbara Gastel and Robert A. Day (2016). How to write and publish a scientific paper. Greenwood
Complementary	

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.