Universida_{de}Vigo

Subject Guide 2018 / 2019

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IDENTIFYIN	G DATA			
Assisted Re	production			
Subject	Assisted			
<u> </u>	Reproduction			
Code	VU2MU/4V01213			
Study	(*)Master			
programme	UNIVERSITATIO EN Biotocopoloxía			
Descriptors	FCTS Credite	Choose	Yoar	Quadmoster
Descriptors	3	Ontional	<u>1ct</u>	2nd
Teaching	 Snanish	οριισιαι	<u></u>	2114
language	Spanish			
Department	Biochemistry, Genetics and Immunology			
	External			
Coordinator	Valverde Pérez, Diana			
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Lecturers	Aguilar Prieto, Jesús			
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Web	http://http://masterbiotecnologiaavanzada.com/index.	php/plan-docente	/materias	
General	Matter focused to the development of capacities and	competitions in th	e field of the *fecun	idación *in *vitro.
description	Knowledge of the technicians that use , *análisi of the	ethical and legal	questions that acco	ompany to this type
	and analysis			
Competenci	les			
Lode	en estada de 11 - 11 - M		de de la constante	
A2 (*)Que (os estudantes salban aplicar os coñecementos adquirio	ios e a sua capaci	aade de resolución	de problemas en
contorn ároa da	os novos ou pouco conecidos dentro de contextos máis	s ampios (ou mult	iuiscipiinares) relaci	ionados coa súa
	<u>coludo.</u> os estudantes sexan canaces de integrar coñocomento	s e se enfrontar á	complexidado do fr	rmular xuízos a
nartir dı	unha información que sendo incompleta ou limitada in	a clúa reflexións se	bre as responsabili	dades sociais e
éticas y	inculadas á aplicación dos seus coñecementos e xuízos			
	os estudantes saiban comunicar as súas conclusións	OS COÑECEmentos	s e razóns últimas o	ue as sustentan a
públicos	s especializados e non especializados dun xeito claro e	sen ambigüidade	<u>S.</u>	
A5 (*)Que o que ser	os estudantes posúan as habilidades de aprendizaxe qu , en grande medida, autodirixido e autónomo.	ue lles permitan c	ontinuar estudando	dun xeito que terá
C18 (*)CEC1	.8 Posuír un amplo coñecemento dos aspectos éticos	e legais que afect	an ás diferentes dis	ciplinas
	4 Coñecer e saber anlicar as técnicas de reprodución	asistida en huma	nos e animais	
D1				
D2				
D3				
D4				
D5				
D6				
D7				

0	
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2	
3	
4	
5	

Learning outcomes		
Expected results from this subject		
	Learning Results	
Possess a wide knowledge of the ethical and legal appearances that affect to the technical employees in	A2	
Reproduction Assisted.	C18	
	C34	
Utilisation of scientific and independent criteria for *sustentar the taking of decisions, adapting to the new	A3	
situations.	C34	
Autonomous learning, developing leadership and capacity of coordination.	D12	
Sensitisation to the quality, the environmental respect, the responsible consumption of resources and the I		
recovery of waste.	D14	
-	D15	
Assessment of the literature specialised the resolution of the problems	A4	
Capacity of analysis and synthesis in the resolution of problems, capacity of organisation and planning of	C34	
the necessary resources and capacity of management of the information.	D1	
Capacity of planning and preparation of technical studies in microbial biotechnology, vegetal and animal.	D2	
Capacity of oral communication and writing of the plans and decisions taken, development of an effective	D3	
communication.	D4	
	D5	
	D6	
	D7	
	D8	
Use a suitable logical structure and an appropriate language for him public in the specialist and defend	 	
them in front of experts of the thematic	C18	
Capacity of work in team *multidenartamental inside the company	C34	
Capacity of work in a context of sustainability characterised by sensitivity of by half and by the different	D9	
organizes that integrate it as well as awareness by the sustainable development	010	
Critical reasoning and deep respect by the ethical and the intellectual integrity	D10	
Know and know apply the technicians of reproduction assisted in humans and animal	<u></u>	
know and know apply the technicians of reproduction assisted in numaris and animal.	C34	
Know and know apply the technicians of melecular diagnestic *proimplantacional of embryos	<u></u>	
know and know apply the technicians of molecular diagnostic - preimplantacional of employes.	C10	
Contonts		

Contents	
Торіс	
Introduction	Presentation and structuring of the matter. Preparation of the works.
1.Assisted Reproduction Physiology	General Aspects of endocrine control, ovaric, endometrial and tubaric
	physiology.
	Fecundation, embrionic development and implantation.
2. Clinical evaluation	Definition and epidemiology of esterility.
	Evaluation of the couple: feminine genital Anatomy, ovarian Factor,
	masculine Factor.
3. Andrology	Seminogram
	Espermatic Qualification and preparation of the samples for the distinct
	techniques of assisted reproduction (insemination, in vitro fecundation,
	ICSI, testicle biopsy, seminal washes, ovocyte activation with Ica2)
	Techniques of spermatic selection: IMSI, espermatic fragmentation, MACS
	Semen bank (bank organisation, spermatic criopreservation and
	screening)

4. Techniques in assisted reproduction	Clinical aspects: LOW COMPLEXITY TECHNIQUES: artificial intrauterine insemination . HIGH COMPLEXITY TECHNICIANS: FIV, ovocytes donation, PGT-A, PGT-M, PGT-SR. Laboratory: Ovocitary recovery Techniques of fecundación: FIV /ICSI Development and embryonic quality: Time-lapse Embryonic Transfer Ovocitary and embryonic vitrification Embryonic Biopsy: blastómeras and trofoectodermo. Analysis of the embryonic material: FISH, NGS, PCR Analysis of the endometrial material: ERA.
5. Legal Aspects	Legislation in reproduction assisted in Spain Ethical European Situation in reproduction assisted special Situations.
6. Applications	Contributions and therapeutic probabilities of the cells embryonic mothers. Problems of him use of cells mother like therapeutic alternative therapeutic and reproductive Cloning. Nuclear transfer Research of other alternative sources: IPs

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	0.5	0	0.5
Lecturing	15	22.5	37.5
Presentation	1	2	3
Case studies	1	1	2
Clinical practice	5	5	10
Objective questions exam	2	0	2
Case studies	0	12	12
Practices report	0	8	8
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Introductory activities	Activities directed to take contact and gather information on the students, as well as to present the matter.
Lecturing	Exhibition by part of the professor of the contents on the matter object of study, theoretical bases and/or guidelines of a work, exercise or project to develop by the student.
Presentation	Exhibition by part of the students in front of the educational and/or a group of students of a subject on contents of the matter or of the results of a work, exercise, project Can carry out of individual way or in group.
Case studies	Analysis of a fact, problem or real event with the purpose to know it, interpret it, resolve it, generate hypothesis, contrast data, discuss, complete knowledges, diagnose it and propose alternative solution
Clinical practice	The student develop the activities in a context related with the exercise of a profession in the area of Sciences of the Health. Practical work will be organized in collaboration with IVI centre of assisted reproduction in Vigo and Quirón Clinic in La Coruña.

Personalized attention		
Methodologies	Description	
Introductory activities	Academic activity developed by the teacher, individual or in small group, with the purpose to attend the needs and queries of the students related with him study and/or subjects linked with the matter, providing him orientation, support and motivation in him process of learning. This activity can develop of face-to-face form (directly in classroom or at the academic despath) or no face-to-face (through email at virtual campus).	
Lecturing	Academic activity developed by the teacher, individual or in small group, that has the purpose to attend the needs and queries of the students related with the study and/or subjects linked with the matter, providing him orientation, support and motivation in the process of learning. This activity can develop of face-to-face form (directly in classroom or at academic despath) or no face-to-face (through email at virtual campus).	

Assessment					
	Description	Qualificati	on Traii	ning and Resu	l Learning lts
Objective questions exam	They evaluated the knowledges purchased in class to *traves of proofs of type test	50	A2 A3	C18 C34	D1 D11 D13
Case studies	*Exposicion Of a case proposed for the contribution of ideas for his solution	30	A4 A5	C18 C34	D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15
Practices report	It will realise a visit to a laboratory of *RA, evaluated the assistance, the *presentacion of a memory of the visit and he interest in the same	20	A3	C18 C34	D13 D15

Other comments on the Evaluation

To the equal that the rest of the matters of the *Máster, the evaluation will realise of continuous way during the weeks assigned to the face-to-face teaching. It tests it type test will realise on 21 March 2018 (15:00 *h), in first opportunity, and on 3 July 2018 (16:00 *h).

Sources of information

Basic Bibliography

Complementary Bibliography

Santaeulària I Pérez, Ariadna, Manual Práctico de Esterilidad y Reproducción Humana, 4 edicion, McGraw Hill, 2012 Ley 14/2007, 3 de julio de Investigacion Biomedicina, OE 159, 4 de Julio 2007, 2007

Fernando; Sánchez Caro, Reproducción humana asistida y responsabilidad médica : protócolos de consentimiento informado de la sociedad española de fertilidad, Editorial Comares, 2003

Sociedad española de fertilidad, http://nuevo.sefertilidad.com/,

European Society of Human Reproduction and embriology, https://www.eshre.eu/Guidelines-and-Legal.aspx, American Association of Reproductive Medicine, https://connect.asrm.org/home?ssopc=1,

Recommendations

Other comments

It is advisable that the students have knowledge of English to level of compression of texts, since it splits of the sources of information that will consult are published in this tongue.