



Teaching Guide				
Identifying Data				2021/22
Subject (*)	Information Technology and Communications. Technical Assistance and Accessibility	Code	653862220	
Study programme	Mestrado Universitario en Asistencia e Investigación Sanitaria (plan 2012)			
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	2nd four-month period	First	Obligatory	3
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Ciencias da SaúdeFisioterapia, Medicina e Ciencias Biomédicas			
Coordinador	Pereira Loureiro, Javier	E-mail	javier.pereira@udc.es	
Lecturers	Pereira Loureiro, Javier	E-mail	javier.pereira@udc.es	
Web	campusvirtual.udc.gal			
General description	The student must be able to know in a theoretical and practical way different tools offered by information and communication technologies for intervention with people with disabilities			
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 / results	
Code	Study programme competences / results
A1	Capacidade para elixir e aplicar as metodoloxías de investigación mais adecuadas á investigación proposta.
A2	Capacidade para o deseño experimental e o completo desenvolvemento de proxectos de investigación no ámbito sanitario, desde a formulación da hipótese de investigación ata a comunicación dos resultados.
A5	Adquirir o coñecemento da realidade investigadora nun ámbito concreto das ciencias da saúde.
B1	Capacidade para aplicar o método científico na planificación e o desenvolvemento da investigación sanitaria.
B2	Fluidez e propiedade na comunicación científica oral e escrita.
B3	Compromiso pola calidade do desenvolvemento da actividade investigadora.
B4	Capacidade de análise e de síntese.
B5	Habilidade para manexar distintas fontes de información.
B6	Capacidade para traballar de forma colaborativa en equipos multi e interdisciplinar.
C1	Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.
C2	Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.
C3	Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.
C5	Entender a importancia da cultura emprendedora e coñecer os medios ao alcance das persoas emprendedoras.



C6	Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben afrontarse.
C7	Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.
C8	Valorar a importancia que ten a investigación, a innovación e o desenvolvemento tecnolóxico no avance socioeconómico e cultural da sociedade.

Learning outcomes			
Learning outcomes	Study programme competences / results		
Use and apply instruments (support technologies) and general and specific computer programs for people with disabilities.	AR1	BC1	CC1
	AR2	BC2	CC2
	AR5	BC3	CC3
		BC4	CC5
		BC5	CC6
		BC6	CC7
			CC8
Know how to create adaptations and contents for the use of ICT of people with functional diversity	AR1	BC1	CC1
	AR2	BC2	CC2
	AR5	BC3	CC3
		BC4	CC5
		BC5	CC6
		BC6	CC7
			CC8

Contents	
Topic	Sub-topic
1. New technologies as therapeutic resources	Therapeutic possibilities and applications of ICT
2. Assistive technology, health and well-being	Assistive Technology for communication and for access to information
3. Augmentative and Alternative Communication	Overview of Assistive technology for Augmentative and Alternative Communication used by persons with functional disability
4. Open source and freeware applications	Fressa project and another examples
5. Assessment and outcome measures to access to ICT	The eTAO tool and other assessments online
6. Author tools for create multimedia interactive resources	6.1 The JClic Software
	6.2 Development of HTML content with Ardora
	6.3 Easy programming with Scratch and MakeyMakey
7. Dynamics tools for Augmentative and Alternative Communication	7.1 Use of pictograms in dynamic communication
	7.2 Applications and resources of ARASAAC platform
8. Mobile APP for participation	8.1 APP for health management
	8.2 APP for cognitive stimulation
	8.3 Accessible APP
9. Therapeutic possibilities of virtual reality	9.1 Basic characteristics of virtual reality
	9.2 Low-cost resources to apply virtual reality
	9.3 Experiences with virtual reality



Experiences from first person	Visits and/or talks from people users of Assistive Devices
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Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student's personal work hours	Total hours
ICT practicals	A1 A2 A5 B1 B2 B3 B4 B5 B6 C3 C8	7.5	15	22.5
Case study	A1 A2 A5 B1 B2 B3 B4 B5 B6 C1 C2 C3 C6 C7 C8	2	15	17
Supervised projects	A1 A2 A5 B1 B2 B3 B4 B5 B6 C1 C2 C3 C5 C6 C7 C8	2	15	17
Guest lecture / keynote speech	A1 A5 B1 B3 B5 B6 C3 C6 C7 C8	7.5	10	17.5
Personalized attention		1	0	1

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

Methodologies	
Methodologies	Description
ICT practicals	Traballos a realizar polo alumno no Laboratorio de Radioloxía e Accesibilidade do 2º andar da Facultade
Case study	Análise de casos prácticos para a súa implementación coas ferramentas estudadas no curso
Supervised projects	Metodoloxía deseñada para promover a aprendizaxe autónoma dos estudantes, baixo a tutela do profesor e en escenarios variados (académicos e profesionais). Está referida prioritariamente ao aprendizaxe do ?cómo facer as cousas?. Constitúe unha opción baseada na asunción polos estudantes da responsabilidade pola súa propia aprendizaxe. Este sistema de ensino baséase en dous elementos básicos: a aprendizaxe independente dos estudantes e o seguimento desa aprendizaxe polo profesor-titor
Guest lecture / keynote speech	Clases sobre os contidos teóricos da materia

Personalized attention	
Methodologies	Description
ICT practicals Case study Supervised projects	Depends on the student's background we defined specific cases.

Assessment			
Methodologies	Competencies / Results	Description	Qualification
Guest lecture / keynote speech	A1 A5 B1 B3 B5 B6 C3 C6 C7 C8	Unha avaliación continuada baseada na asistencia a clase tamén se valora podendo supor ata un incremento dun 10% da avaliación global	10
ICT practicals	A1 A2 A5 B1 B2 B3 B4 B5 B6 C3 C8	Traballo realizado polo alumno durante o curso. Os traballo deben presentarse a través de Moodle	20
Case study	A1 A2 A5 B1 B2 B3 B4 B5 B6 C1 C2 C3 C6 C7 C8	A participación activa na clase e na proposta e debate dos casos plantexados será tida en conta na avaliación final. A presentación do traballo final baseado nun caso supón ata o 35% da valoración global	35



Supervised projects	A1 A2 A5 B1 B2 B3 B4 B5 B6 C1 C2 C3 C5 C6 C7 C8	A realización de este traballo poderá ser grupal ou individual e realizarase ó remate da exposición dos contidos teóricos da asignatura. O traballo consistirá na programación dun proxecto de investigación baseado no uso das TIC no ámbito da discapacidade e será exposto en clase.	35
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Assessment comments

Low participation of students or low quality of the work there will be a ssesment.

To overcome the subject it is necessary to obtain at least 50% of the valuation of each section.

Failure to attend class forces the student to take the exam. Continuous attendance and delivery of the internship in the deadlines exempts from the exam.

Sources of information

Basic	Groba Gonzalez, Betania. Nieto Riveiro, Laura. Pereira Loureiro, Javier. PousadaGarcía, Thais et al (2009). Proyecto In-TIC: Integración delas personas con diversidad funcional en las Tecnologías de la Información y las Comunicaciones de la Revista de Terapia Ocupacional de Galicia. APGTO(www.revistatog.com) Pereira Loureiro, Javier. Martinez Normand, Loic A.fuertes, José Luis. VazquezNaya, José Manuel (2008). Tecnologías de la Información y las Comunicaciones en la autonomía personal, dependencia y accesibilidad. A Coruña: Universidade da Coruña. (http://www.udc.es/biblioteca) Grande González, Ruben. Pousada garcía, Thais. Groba González, Betania. PereiraLoureiro, Javier. (2008). "Proyecto IN-TIC para la accesibilidad y usabilidad de las TIC en personas con diversidad funcional" en la revista "Revista informativa de la Asociación Profesional Española de Terapeutas Ocupacionales. APETO CEAPAT (Disponible en http://www.ceapat.es) (2010). Catálogo de pulsadores, soportes y otras adaptaciones. Madrid : CEAPAT Sitio Web Proyecto In-TIC (2011). Manual del usuario de In-TIC. http://www.proyectosfundacionorange.es/intic/ Sitio Web Portal ARASAAC: http://www.catedu.es/arasaac/ Sitio Web JClic: http://clic.xtec.cat/es/jclic/ Sitio Web Libros Interactivos Multimedia (LIM): http://www.educalim.com/cinico.htm Plataforma TecnoAccesible: https://www.tecnoaccesible.net/Evaluación para el uso de Tecnologías de Ayuda de acceso al ordenador: http://etao-inico.usal.es/
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

To help achieve an immediate and sustainable contour or achieve strategic objectives 1 and 2 of the "III Green Campus FCS Environmental Sustainability Plan (2018-2020)", all of the documents you document will be delivered through Moodle, in digital format, if necessary. In case of use of paper:- Nonplastics will be used.- Impressions will be made on the face.- Get recycled paper- Avoid printing drafts. The teachers of the subject will apply the corresponding regulations of the UDC before the detection of any attempt of plagiarism motivated by a student of the matter in the development of their works.

(*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.