UNIVERSIDADE DA CORUÑA

<table>
<tr><td colspan="6" align="center">Teaching Guide</td></tr>
<tr><td colspan="4" align="center">Identifying Data</td><td colspan="2" align="center">2019/20</td></tr>
<tr><td>Subject (*)</td><td colspan="3">Biomedical knowledge management</td><td>Code</td><td>614522022</td></tr>
<tr><td>Study programme</td><td colspan="5">Mestrado Universitario en Bioinformática para Ciencias da Saúde</td></tr>
<tr><td colspan="6" align="center">Descriptors</td></tr>
<tr><td align="center">Cycle</td><td align="center">Period</td><td align="center">Year</td><td colspan="2" align="center">Type</td><td align="center">Credits</td></tr>
<tr><td>Official Master's Degree</td><td>1st four-month period</td><td>Second</td><td colspan="2">Optional</td><td>3</td></tr>
<tr><td>Language</td><td colspan="5">SpanishEnglish</td></tr>
<tr><td>Teaching method</td><td colspan="5">Face-to-face</td></tr>
<tr><td>Prerequisites</td><td colspan="5"></td></tr>
<tr><td>Department</td><td colspan="5">Ciencias da Computación e Tecnoloxías da InformaciónComputación</td></tr>
<tr><td>Coordinador</td><td colspan="2">Parapar López, Javier</td><td>E-mail</td><td colspan="2">javier.parapar@udc.es</td></tr>
<tr><td>Lecturers</td><td colspan="2">Parapar López, Javier</td><td>E-mail</td><td colspan="2">javier.parapar@udc.es</td></tr>
<tr><td>Web</td><td colspan="5">http://www.dc.fi.udc.es/~parapar/</td></tr>
<tr><td>General description</td><td colspan="5">In this course, we will explore the theoretical concepts of information management, as well as the software and tools for obtaining, extracting, labelling, visualising and exploiting biomedical knowledge. We will explore the syntactic and semantic modelling of information, methods of obtaining and collecting information, methods of integration, extraction and terminological labelling, standards for semantic representation of biomedical information, and techniques for analysis and visualisation of knowledge</td></tr>
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<tr><td colspan="2" align="center">Study programme competences / results</td></tr>
<tr><td align="center">Code</td><td align="center">Study programme competences / results</td></tr>
<tr><td>A6</td><td>CE6 - Ability to identify software tools and most relevant bioinformatics data sources, and acquire skill in their use</td></tr>
<tr><td>B3</td><td>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</td></tr>
<tr><td>B6</td><td>CG1 -Search for and select the useful information needed to solve complex problems, driving fluently bibliographical sources for the field</td></tr>
<tr><td>C3</td><td>CT3 - Use the basic tools of the information technology and communications (ICT) necessary for the exercise of their profession and lifelong learning</td></tr>
<tr><td>C8</td><td>CT8 - Rating the importance that has the research, innovation and technological development in the socio-economic and cultural progress of society</td></tr>
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<tr><td colspan="4" align="center">Learning outcomes</td></tr>
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<tr><td>Coñecer comprender e analizar os distintos modelos de xestión e explotación de coñecemento na área da de investigación biomédica, para a súa implementación e uso eficiente.</td><td>AJ6</td><td>BJ6</td><td>CJ3</td></tr>
<tr><td>Coñecer comprender e analizar as plataformas e ferramentas software para a implementación de técnicas que xestionen e exploten información biomédica.</td><td>AJ6</td><td>BJ3
BJ6</td><td></td></tr>
<tr><td>Planear e deseñar avaliacións de métodos, técnicas e sistemas existentes e capacidade de análise os resultados das devanditas avaliacións.</td><td></td><td>BJ3
BJ6</td><td>CJ3
CJ8</td></tr>
<tr><td>Coñecer, comprender e aplicar correctamente os condicionantes éticos, de privacidade e confidencialidade dos datos e coñecemento tratado.</td><td></td><td></td><td>CJ8</td></tr>
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<table>
<tr><td colspan="2" align="center">Contents</td></tr>
<tr><td align="center">Topic</td><td align="center">Sub-topic</td></tr>
<tr><td>Introduction</td><td>-</td></tr>
<tr><td>Standards for biomedical information</td><td>-</td></tr>
<tr><td>Resources for biomedical information</td><td>-</td></tr>
<tr><td>Exploitation of biomedical information</td><td>-</td></tr>
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Ethical and legal aspects	-

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Laboratory practice	C3 C8	8	22	30
Supervised projects	B3 B6	2	9	11
Mixed objective/subjective test	A6 B3 B6 C3 C8	0	1	1
Guest lecture / keynote speech	A6 B3	11	22	33
Personalized attention		0		0
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Laboratory practice	Use of standards, resources and methods of exploitation to solve problems
Supervised projects	Tutored work proposed by the teacher and developed by students either in groups or individually.
Mixed objective/subjective test	The mastery of theoretical and operative knowledge of the subject will be evaluated.
Guest lecture / keynote speech	Lessons about the contents of the subject by encouraging student participation

Personalized attention	
Methodologies	Description
Laboratory practice Supervised projects	The teacher will advise the particular problems of each student taking into account their degree of effort and participation during the lessons

Assessment			
Methodologies	Competencies / Results	Description	Qualification
Mixed objective/subjective test	A6 B3 B6 C3 C8	Questions about acquired knowledge. Questions that involve reasoning based on the knowledge acquired to solve practical problems of real interest. It is mandatory to reach 40% of the grade to pass the subject	50
Laboratory practice	C3 C8	Correction and completeness of the practices proposed for the proper use of the explained tools. It is mandatory to reach 40% of the grade to pass the subject	40
Supervised projects	B3 B6	Follow up of the work and evaluation on the result achieved and individual participation of the students in the classes. It is mandatory to reach 40% of the grade to pass the subject	10

Assessment comments
For the second opportunity and not ordinary exams, both practice and theory will be evaluated in the mixed exam. If the minimum grade in the different tests is not reached, the maximum grade of the student will be 4.5. For part-time students, the grading scale and continuous assessment are the same as for other students. If plagiarism is detected the student will not pass the subject.

Sources of information	
Basic	- Pease, Cooper & Gururajn (2010). Biomedical Knowledge Management.
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