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 align="center">Subject (*)</td><td colspan="3">Industrial Logistics</td><td align="center">Code</td><td>730497234</td></tr>
<tr><td align="center">Study programme</td><td colspan="5">Mestrado Universitario en Enxeñaría Industrial (plan 2018)</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 align="center">Type</td><td colspan="2" align="center">Credits</td></tr>
<tr><td align="center">Official Master's Degree</td><td align="center">2nd four-month period</td><td align="center">Second</td><td align="center">Optional</td><td colspan="2" align="center">4.5</td></tr>
<tr><td align="center">Language</td><td colspan="5">Spanish</td></tr>
<tr><td align="center">Teaching method</td><td colspan="5">Face-to-face</td></tr>
<tr><td align="center">Prerequisites</td><td colspan="5"></td></tr>
<tr><td align="center">Department</td><td colspan="5">Empresa</td></tr>
<tr><td align="center">Coordinador</td><td colspan="2">Ríos Prado, Rosa</td><td align="center">E-mail</td><td colspan="2">rosa.rios@udc.es</td></tr>
<tr><td align="center" rowspan="2">Lecturers</td><td colspan="2">Crespo Pereira, Diego</td><td align="center" rowspan="2">E-mail</td><td colspan="2">diego.crespo@udc.es</td></tr>
<tr><td colspan="2">Ríos Prado, Rosa</td><td colspan="2">rosa.rios@udc.es</td></tr>
<tr><td align="center">Web</td><td colspan="5"></td></tr>
<tr><td align="center">General description</td><td colspan="5">Subject in which will work on the logistics of the company: supply chain, location of facilities, routes, warehouses and transport.</td></tr>
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<tr><td colspan="2" align="center">Study programme competences</td></tr>
<tr><td align="center">Code</td><td align="center">Study programme competences</td></tr>
<tr><td align="center">A9</td><td>EG1 - Knowledge and skills to organize and manage companies.</td></tr>
<tr><td align="center">A10</td><td>EG2 - Knowledge and skills of strategy and planning applied to different organizational structures.</td></tr>
<tr><td align="center">A12</td><td>EG4 - Knowledge of financial accounting and costs.</td></tr>
<tr><td align="center">A13</td><td>EG5 - Knowledge of management information systems, industrial organization, production systems and logistics and quality management systems.</td></tr>
<tr><td align="center">B2</td><td>CB7 - That students know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of ??study.</td></tr>
<tr><td align="center">B3</td><td>CB8 - That students are able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.</td></tr>
<tr><td align="center">B4</td><td>CB9 - That the students know how to communicate their conclusions -and the knowledge and ultimate reasons that sustain them- to specialized and non-specialized audiences in a clear and unambiguous way.</td></tr>
<tr><td align="center">B6</td><td>G1 - Have adequate knowledge of the scientific and technological aspects in Industrial Engineering.</td></tr>
<tr><td align="center">B13</td><td>G8 - Apply the knowledge acquired and solve problems in new or unfamiliar environments within broader and multidisciplinary contexts.</td></tr>
<tr><td align="center">B14</td><td>G9 - Be able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments.</td></tr>
<tr><td align="center">B15</td><td>G10 - Knowing how to communicate the conclusions -and the knowledge and ultimate reasons that sustain them- to specialized and non-specialized publics in a clear and unambiguous way.</td></tr>
<tr><td align="center">C1</td><td>ABET (a) - An ability to apply knowledge of mathematics, science, and engineering.</td></tr>
<tr><td align="center">C3</td><td>ABET (c) - An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.</td></tr>
<tr><td align="center">C6</td><td>ABET (f) - An understanding of professional and ethical responsibility.</td></tr>
<tr><td align="center">C7</td><td>ABET (g) - An ability to communicate effectively.</td></tr>
<tr><td align="center">C8</td><td>ABET (h) - The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.</td></tr>
<tr><td align="center">C9</td><td>ABET (i) - A recognition of the need for, and an ability to engage in life-long learning.</td></tr>
<tr><td align="center">C11</td><td>ABET (k) - An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.</td></tr>
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<table>
<tr><td align="center">Learning outcomes</td></tr>
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Learning outcomes	Study programme competences		
Knowledge and skills to organize and manage companies.	AJ9 AJ10	BJ6 BJ13 BJ15	CJ11
Knowledge and skills of strategy and planning.	AJ10 AJ13	BJ2 BJ3 BJ4	CJ3
Knowledge of financial accounting and costs.	AJ12	BJ2	CJ1 CJ8
Knowledge of management information systems, industrial organization, production and logistics systems and quality management systems.	AJ9 AJ13	BJ14	CJ1 CJ6 CJ7
Knowledge about methods and techniques of transport and industrial maintenance.	AJ10 AJ13	BJ13 BJ14	CJ1 CJ3 CJ9

Contents	
Topic	Sub-topic
1. Supply chain management.	1. Xestión da cadea de suministro
2. Geographic information systems (GIS).	2. Sistemas de información xeográfica (GIS)
3. Facilities location methods.	3. Métodos de ubicación de instalacions
4. Desing and management of warehouses and inventories.	4. Deseño e xestión de almacens e inventarios
5. Transport.	5. Transporte
6. Route planning.	6. Planificación de rutas

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Guest lecture / keynote speech	A9 A10 A12 A13 B2 B15 B6 C6 C8 C9	10.5	13.5	24
Problem solving	A9 A10 A12 A13 B13 B14 C1	8.5	15.5	24
ICT practicals	A13 A10 C11 C1	10.5	19.5	30
Supervised projects	A9 A10 A12 A13 B2 B3 B4 B13 B15 B14 C1 C3 C6 C7 C8 C9 C11	2	26	28
Objective test	A9 A10 A12 A13 B3 B4 B6 C1 C3 C6 C7 C8 C9 C11	0	6	6
Personalized attention		0.5	0	0.5

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

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	Classes of exposition of the lessons of the subject.
Problem solving	Resolution of exercises and logistical problems.
ICT practicals	Resolution of practical cases through software such as QGIS, Excel ...

Supervised projects	Resolution of practical cases supervised by teachers.
Objective test	Final exam of the subject.

Personalized attention	
Methodologies	**Description**
Supervised projects	Students will be tutored in the resolution process of the proposed cases. It will be held at agreed times between the student and the teacher, either in tutoring or outside of it.

Assessment			
Methodologies	**Competencies**	**Description**	**Qualification**
Supervised projects	A9 A10 A12 A13 B2 B3 B4 B13 B15 B14 C1 C3 C6 C7 C8 C9 C11	One or several supervised works will be considered during the course, with different logistical problems to be solved by the student, using the tools taught during the course. Will have the tutorization of the teachers of the subject.	60
Objective test	A9 A10 A12 A13 B3 B4 B6 C1 C3 C6 C7 C8 C9 C11	Exam of the subject with both theoretical and practical questions.	40

Assessment comments
O "Alumnado con recoñecemento de dedicación a tempo parcial e dispensa académica de exención de asistencia" comunicarán ó inicio do curso a súa situación os profesores da materia, segundo establece a "Norma que regula o réxime de dedicación ao estudo dos estudantes de grao na UDC" (Art.3.b e 4.5) e as ?Normas de avaliación, revisión e reclamación das cualificacións dos estudos de grao e mestrado universitario (Art. 3 e 8b). Para os alumnos que soliciten a dispensa académica a avaliación será igual ao resto xa que os traballos serán completados fóra do horario de clases. Tamén deberán ir o exame.Os alumnos de segunda oportunidade que non seguiran a avaliación continua poderán ter un exame que os avalíe do total das competencias, podendo ser este diferente dos que xa adquiriron competencias cos traballos e prácticas do curso.

Sources of information	
Basic	- (). . - Ballou, Ronald H. (2004). Logística: Administración de La Cadena de Suministro. Pearson Educación, México - Ballou, Ronald H. (1991). Logística empresarial : control y planificación. Díaz de Santos, Madrid - Mauleón, Mikel (2006). Logística y costos. Díaz de Santos, Madrid
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

1.
A entrega dos traballos documentais que se realicen nesta materia: 1.1. Solicitarase en formato virtual e/ou soporte informático.   1.2. Realizarase a través de Moodle, en formato dixital sen necesidade de imprimilos. 1.3. De se realizar en papel: * Non se empregarán plásticos. * Realizaranse impresións a dobre cara. * Empregarase papel reciclado. * Evitarase a impresión de borradores.