



## Teaching Guide

| Teaching Guide      |                                                               |                                      |                                                    |           |
|---------------------|---------------------------------------------------------------|--------------------------------------|----------------------------------------------------|-----------|
| Identifying Data    |                                                               |                                      |                                                    | 2014/15   |
| Subject (*)         | Xestión de Proxectos                                          |                                      | Code                                               | 614G01203 |
| Study programme     | Grao en Enxeñaría Informática                                 |                                      |                                                    |           |
| Descriptors         |                                                               |                                      |                                                    |           |
| Cycle               | Period                                                        | Year                                 | Type                                               | Credits   |
| Graduate            | 1st four-month period                                         | Curso adap. Enx. Téc.<br>Informática | Obligatoria                                        | 6         |
| Language            |                                                               |                                      |                                                    |           |
| Prerequisites       |                                                               |                                      |                                                    |           |
| Department          | MatemáticasTecnoloxías da Información e as Comunicaci3ns      |                                      |                                                    |           |
| Coordinador         | Hernandez Almaraz, Joaquin                                    | E-mail                               | joaquin.hernandeza@udc.es                          |           |
| Lecturers           | Carpente Rodriguez, María Luisa<br>Hernandez Almaraz, Joaquin | E-mail                               | luisa.carpente@udc.es<br>joaquin.hernandeza@udc.es |           |
| Web                 |                                                               |                                      |                                                    |           |
| General description |                                                               |                                      |                                                    |           |

## Study programme competences

| Code | Study programme competences                                                                                                                                                                                                                                                                 |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1   | Capacidade para a resoluci3n dos problemas matemáticos que se poden presentar na enxeñaría. Aptitude para aplicar os coñecementos sobre: álgebra linear; cálculo diferencial e integral; métodos numéricos; algorítmica numérica; estatística e optimizaci3n.                               |
| A8   | Capacidade para planificar, concibir, despregar e dirixir proxectos, servizos e sistemas informáticos en todos os ámbitos, liderando a súa posta en marcha e a súa mellora continua e valorando o seu impacto económico e social.                                                           |
| A29  | Capacidade de identificar, avaliar e xestionar os riscos potencias asociados que se puideren presentar.                                                                                                                                                                                     |
| A46  | Capacidade de integrar soluci3ns de tecnoloxías da informaci3n e as comunicaci3ns e procesos empresariais para satisfacer as necesidades de informaci3n das organizaci3ns, permitíndolles alcanzar os seus obxectivos de forma efectiva e eficiente, e dándolles así vantaxes competitivas. |
| A49  | Capacidade para comprender e aplicar os principios e as prácticas das organizaci3ns, de forma que poidan exercer como enlace entre as comunidades técnica e de xesti3n dunha organizaci3n, e participar activamente na formaci3n dos usuarios.                                              |
| A50  | Capacidade para comprender e aplicar os principios da avaliaci3n de riscos e aplicalos correctamente na elaboraci3n e execuci3n de plans de actuaci3n.                                                                                                                                      |
| A52  | Capacidade para comprender o contorno dunha organizaci3n e as súas necesidades no ámbito das tecnoloxías da informaci3n e as comunicaci3ns.                                                                                                                                                 |
| A56  | Capacidade para seleccionar, despregar, integrar e xestionar sistemas de informaci3n que satisfagan as necesidades da organizaci3n, cos criterios de custo e calidade identificados.                                                                                                        |
| B1   | Capacidade de resoluci3n de problemas                                                                                                                                                                                                                                                       |
| B2   | Traballo en equipo                                                                                                                                                                                                                                                                          |
| B3   | Capacidade de análise e síntese                                                                                                                                                                                                                                                             |
| B4   | Capacidade para organizar e planificar                                                                                                                                                                                                                                                      |
| B5   | Habilidades de xesti3n da informaci3n                                                                                                                                                                                                                                                       |
| B6   | Toma de decisi3ns                                                                                                                                                                                                                                                                           |
| B7   | Preocupaci3n pola calidade                                                                                                                                                                                                                                                                  |
| B8   | Capacidade de traballar nun equipo interdisciplinar                                                                                                                                                                                                                                         |
| B9   | Capacidade para xerar novas ideas (creatividade)                                                                                                                                                                                                                                            |
| C1   | Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.                                                                                                                                                                                    |
| C3   | Utilizar as ferramentas básicas das tecnoloxías da informaci3n e as comunicaci3ns (TIC) necesarias para o exercicio da súa profesi3n e para a aprendizaxe ao longo da súa vida.                                                                                                             |
| C4   | Desenvolverse para o exercicio dunha cidadanía aberta, culta, crítica, comprometida, democrática e solidaria, capaz de analizar a realidade, diagnosticar problemas, formular e implantar soluci3ns baseadas no coñecemento e orientadas ao ben común.                                      |



|    |                                                                                                                                   |
|----|-----------------------------------------------------------------------------------------------------------------------------------|
| C6 | Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse. |
| C7 | Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.                                                  |

| Learning outcomes                                                                                                                     |  |                             |       |
|---------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------|-------|
| Subject competencies (Learning outcomes)                                                                                              |  | Study programme competences |       |
| Know realise the planning of a project, the management of his resources and his risks, as well as the follow-up of the same.          |  | A8                          | B1 C1 |
|                                                                                                                                       |  | A29                         | B2 C3 |
|                                                                                                                                       |  | A49                         | B3 C4 |
|                                                                                                                                       |  | A50                         | B4 C6 |
|                                                                                                                                       |  |                             | B5 C7 |
|                                                                                                                                       |  |                             | B6    |
|                                                                                                                                       |  |                             | B7    |
|                                                                                                                                       |  |                             | B8    |
| Know technicians of modelado and optimisation of projects, determination of the critical way, nivelación and allocation of resources. |  | A1                          | B1 C1 |
|                                                                                                                                       |  | A8                          | B2 C3 |
|                                                                                                                                       |  | A49                         | B3 C4 |
|                                                                                                                                       |  |                             | B4 C6 |
|                                                                                                                                       |  |                             | B5 C7 |
|                                                                                                                                       |  |                             | B6    |
|                                                                                                                                       |  |                             | B7    |
|                                                                                                                                       |  |                             | B8    |
| Saber utilizar ferramentas de apoio á planificación e xestión de proxectos.                                                           |  | A46                         | B1 C3 |
|                                                                                                                                       |  | A52                         | B2 C4 |
|                                                                                                                                       |  | A56                         | B3 C6 |
|                                                                                                                                       |  |                             | B4 C7 |
|                                                                                                                                       |  |                             | B5    |
|                                                                                                                                       |  |                             | B6    |
|                                                                                                                                       |  |                             | B8    |
|                                                                                                                                       |  |                             | B9    |

| Contents |                                                                                               |
|----------|-----------------------------------------------------------------------------------------------|
| Topic    | Sub-topic                                                                                     |
| Teoría   | Subject 1. Models of linear programming and applications                                      |
|          | Subject 2. Whole linear programming                                                           |
|          | Subject 3. Management of projects                                                             |
|          | Subject 4. Planificacion Of Projects                                                          |
|          | Subject 5. Management of risks                                                                |
| Práctica | Exercises of linear programming and whole                                                     |
|          | Practice of linear programming and whole                                                      |
|          | Practice of planning and follow-up of projects: Editorial of the Practical                    |
|          | preliminary draft of planning and follow-up of projects: Realisation of the preliminary draft |

| Planning                       |                      |                               |             |
|--------------------------------|----------------------|-------------------------------|-------------|
| Methodologies / tests          | Ordinary class hours | Student?s personal work hours | Total hours |
| Objective test                 | 2                    | 12                            | 14          |
| Guest lecture / keynote speech | 21                   | 42                            | 63          |



|                                                                                                                                 |    |    |    |
|---------------------------------------------------------------------------------------------------------------------------------|----|----|----|
| Supervised projects                                                                                                             | 6  | 24 | 30 |
| Laboratory practice                                                                                                             | 14 | 28 | 42 |
| 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                                                                                                                                                                                                                                                                                                                                                                                              |
| Objective test                 | Examination written to value the theoretical and practical knowledges purchased along the course.                                                                                                                                                                                                                                                                                                        |
| Guest lecture / keynote speech | The method magistral will employ for the presentation of the theoretical knowledges related with the distinct subjects                                                                                                                                                                                                                                                                                   |
| Supervised projects            | The autonomous work and in group tutelado allows to the students carry to the practice, through exercises and relative practices to projects proposed by them same, the knowledges purchased along the course.<br>The autonomous work fundamentally allows to the students the development detailed of the practices and the knowledge and handle of the computer tools of support previously mentioned. |
| Laboratory practice            | The classes of practices will devote to realise the practices and exercises linked to the temario exposed through the method magistral, handling computer tools of support                                                                                                                                                                                                                               |

| Personalized attention                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methodologies                                                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Laboratory practice<br>Guest lecture / keynote speech<br>Supervised projects | It will combine the method expositivo magistral with the practices on computer, in which conjurará the autonomous work and in group tutelado.<br><br>The method magistral will employ for the presentation of the theoretical knowledges related with the distinct subjects.<br><br>The classes of practices will devote to realise the practices and exercises linked to the temario exposed through the method magistral, handling computer tools of support.<br><br>The autonomous work and in group tutelado allows to the students carry to the practice, the knowledges purchased along the course.<br><br>At all times it will boost the participation of the students. |

| Assessment          |                                                                                                                                                                                                                           |               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Methodologies       | Description                                                                                                                                                                                                               | Qualification |
| Laboratory practice | Valorarase:<br>- Memoria entregada da práctica.<br>- Nivel técnico da práctica.<br>- Completitud, claridade e xustificaciós da práctica.<br>- Dominio dos coñecementos adquiridos.<br>- Participación activa na práctica. | 30            |
| Objective test      | Dominio dos coñecementos teóricos e prácticos da materia a través dun exame escrito individual. A parte teórica da proba supón o 40% desta.                                                                               | 70            |

| Assessment comments |
|---------------------|
|---------------------|



The aim of the evaluation is to ascertain that the students possess the necessary fundamental competitions and will realise&nbsp; in two temporary moments distinct:- Once finalised the practices, so much of of planning and follow-up of projects, as of linear programming and/or whole.- When finalising the course, by means of an examination written individual.The final note of each student will obtain&nbsp; according to the indicated to continuation:- Individual written examination: 70%.- Practical of planning and follow-up of projects: 20%.- Practical of linear programming and/or whole: 10%To approve the asignatura is precise to obtain a minimum global punctuation of 5 points on 10 and fulfil the following restrictions:- It is necessary to have a minimum of 4.5 points on 10 in the practice.- It is necessary to have a minimum of 4.5 points on 10 in the examination written individual.In case that it did not fulfil&nbsp; some minimum of the two previous, the note that will appear for the asignatura will be the one of the practice, if this was not approved, or the one of the examination in case that the practice yes had approved .Appearances to take into account:- The groups of students to realise the practices will form&nbsp; under the guidelines of the professors.- In the evaluation of the practice of planning and follow-up of projects will value&nbsp; the technical level of the work and the completitud, clarity and exhibition of the same.- The note assigned to the practice of planning and follow-up of projects initially will be the one who receive all the members of the group that defend it, without prejudice to modification in base to the individual active participation of each one.-&nbsp; In the practice of programacion linear and/or enterea, will value&nbsp; the capacity of modelar a situation of conflict in a project and resolve it, by means of the software recommended, as well as interpret of suitable way said solution.The students that do not surpass the asignatura will have to show the correct acquisition of the fundamental competitions of the same by means of the realisation of a new subject examination to the restrictions indicated previously. Besides, those students that have not surpassed the practice of planning and follow-up of projects will have to redo it until this fulfil with the minimum requirements demanded, being delivered for his evaluation by part of the professors and defence with deadline the day of the examination of the second opportunity.

## Sources of information

|               |  |
|---------------|--|
| Basic         |  |
| 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 asignatura has an essentially practical character, by which is fundamental that the students know to apply the theoretical knowledges learnt to the practice.

(\*)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.