

## **UNIVERSIDAD DE CASTILLA - LA MANCHA**

# **GUÍA DOCENTE**

#### 1. General information

| Course:                               | PROJECT MANAGEMENT                          |                 |                          | <b>Code:</b> 56354  |  |  |  |
|---------------------------------------|---|-----------------|--------------------------|---|--|--|--|
| Туре:                                 | ELECTIVE                                    |                 |                          | ECTS credits: 4.5   |  |  |  |
| Degree:                               | 351 - UNDERGRADUATE DE<br>ENGINEERING (ALM) | GREE PROG. IN   | MECHANICAL               | Academic year: 2023-24  |  |  |  |
| Center:                               | 106 - SCHOOL OF MINING AI                   | ND INDUSTRIAL I | ENGINEERING              | GINEERING Group(s): 55  |  |  |  |
| Year:                                 | 4   |                 |                          | Duration: C2  |  |  |  |
| Main language:                        | Spanish                                     |                 | Second language:         |   |  |  |  |
| Use of additional English Friendly: Y |   |                 |                          |   |  |  |  |
| Web site:                             | Web site: Bilingual: N                      |                 |                          |   |  |  |  |
| Lecturer: DEMETRIC                    | FUENTES FERRERA - Grou                      | p(s): <b>55</b> |                          |   |  |  |  |
| Building/Office                       | Department                                  | Phone number    | Email                    | Office hours  |  |  |  |
|                                       | MECÁNICA ADA. E ING.<br>PROYECTOS           | 926052115       | demetrio.fuentes@uclm.es | They will be published on the area's notice board and on the Moodle platform. |  |  |  |

## 2. Pre-Requisites

It is highly recommended to have passed the subject of Projects (taught in the 1st four-month period), as the subject of Project Management is the continuation and essential complement to consolidate competences in a traditional task of the engineer, such as that related to projects and their management.

## 3. Justification in the curriculum, relation to other subjects and to the profession

Project Management covers a wide range of the competences of the Degree in Electrical Engineering, such as the management of the activities involved in engineering projects, the handling of specifications, regulations and mandatory standards, analysis and assessment of the social and environmental impact of technical solutions, etc. All of them are widely used in the development of professional activities. In addition to its relationship with the subject of Engineering Projects, it is related to practically all the specific subjects, which make use of the contents developed in this subject.

| 4. Degree compete | ences achieved in this course   |
|-------------------|---|
| Course competence | es  |
| Code              | Description   |
| A02               | To know how to apply knowledge to work or vocation in a professional manner and possess the competences that are usually<br>demonstrated by the formulation and defence of arguments and the resolution of problems in the field of study.  |
| A03               | To have the capability to gather and interpret relevant data (normally within the area of study) to make judgements that include a reflection on themes of a social, scientific or ethical nature.  |
| A07               | Knowledge of Information Technology and Communication (ITC).  |
| A08               | Appropriate level of oral and written communication.  |
| A16               | Ability to analyse and evaluate the social and environmental impact of technical solutions.   |
| CB02              | Apply their knowledge to their job or vocation in a professional manner and show that they have the competences to construct and justify arguments and solve problems within their subject area.  |
| CB03              | Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.  |
| CB04              | Transmit information, ideas, problems and solutions for both specialist and non-specialist audiences.   |
| CG05              | Knowledge to undertake measurements, calculations, evaluations, appraisals, studies, give expert opinions, reports, work plans and similar tasks.   |
| CG06              | Ability to work to specifications and comply with obligatory rules and regulations.   |
| G11               | Ability to design, write, use, direct and control integrated systems of use (time periods, quality, environmental, prevention, security¿).<br>Ability to analyse and compare proposed alternatives in the allocation and contracting of projects. Ability to synthesize all the<br>information in a system in a project, communicate this information and defend it to a third party. |

## 5. Objectives or Learning Outcomes

Course learning outcomes

#### Description

Advanced knowledge of comprehensive project management

#### 6. Units / Contents

- Unit 1: Integrated project management: concept and frame of reference
- Unit 2: Deadline control management in the project: control tools.
- Unit 3: Cost control and resource management of the project: control tools.
- Unit 4: The project's occupational risk prevention management: control tools.
- Unit 5: Environmental management of the project.
- Unit 6: Other management systems

| 7. Activities, Units/Modules and Methodology     |                                  |   |      |       |   |     |   |  |
|--|----------------------------------|---|------|-------|---|-----|---|--|
| Training Activity                                | Methodology                      | Related Competences<br>(only degrees before RD<br>822/2021) | ECTS | Hours | As  | Com | Description   |  |
| Class Attendance (theory) [ON-<br>SITE]          | Lectures                         | A02 A03 A07 A08 A16<br>CB02 CB03 CB04 CG05<br>CG06 G11      | 0.6  | 15    | N   | -   | During the face-to-face session, the<br>subject matter will be developed by<br>the teacher with the active<br>participation of the student. |  |
| Problem solving and/or case<br>studies [ON-SITE] | Problem solving and exercises    | A02 A03 A07 A08 A16<br>CB02 CB03 CB04 CG05<br>CG06 G11      | 0.4  | 10    | Y   | Y   | The student, under the guidance of<br>the teacher, will solve in class<br>exercises and practical questions on<br>the topics of the course. |  |
| Class Attendance (practical) [ON-<br>SITE]       | Practical or hands-on activities | A02 A03 A07 A08 A16<br>CB02 CB03 CB04 CG05<br>CG06 G11      | 0.6  | 15    | N   | -   | In the computer classroom, the<br>student will solve problems of the<br>subject with the use of specific<br>programmes of the subject.      |  |
| Formative Assessment [ON-SITE]                   | Assessment tests                 | A02 A03 A07 A08 A16<br>CB02 CB03 CB04 CG05<br>CG06 G11      | 0.2  | 5     | Y   | Y   | Final theoretical and practical test on topics covered in the course.   |  |
| Study and Exam Preparation [OFF-<br>SITE]        | Self-study                       | A02 A03 A07 A08 A16<br>CB02 CB03 CB04 CG05<br>CG06 G11      | 2.7  | 67.5  | The student, in an autonomous<br>manner, will carry out a work of<br>synthesis of the topics developed in<br>class. |     |   |  |
| Total:   |                                  |   |      |       |   |     |   |  |
|  |                                  |   |      |       | Total class time hours: 45  |     |   |  |
| Total credits of out of class work: 2.7          |                                  |   |      |       |   | 1   | otal hours of out of class work: 67.5   |  |

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

| 8. Evaluation criteria and Grading System             |                          |                                   |   |  |  |  |  |  |
|---|--------------------------|-----------------------------------|---|--|--|--|--|--|
| Evaluation System                                     | Continuous<br>assessment | Non-<br>continuous<br>evaluation* | Description   |  |  |  |  |  |
| Final test  | 20.00%                   | 50.00%                            | answers to theoretical questions and short problems                           |  |  |  |  |  |
| Practicum and practical activities reports assessment | 50.00%                   | 50.00%                            | presentation of reports of the practical exercises proposed for<br>resolution |  |  |  |  |  |
| Progress Tests  | 30.00%                   | 0.00%                             | multiple-choice tests   |  |  |  |  |  |
| Tota  | : 100.00%                | 100.00%                           |   |  |  |  |  |  |

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

## Evaluation criteria for the final exam:

#### Continuous assessment:

The student must submit all scheduled practical activities correctly before the date of the final exam.

If the student passes the progress tests and submits all the practical activities correctly, he/she does not have to sit the final exam. 4/10 points are required to offset

#### Non-continuous evaluation:

The student must submit all scheduled practical activities before the date of the final exam. They must be correctly completed. 4/10 points are required to offset

| 9. Assignments, course calendar and important dates                             |                    |
|---|--------------------|
| Not related to the syllabus/contents  |                    |
| Hours   | hours              |
| Class Attendance (theory) [PRESENCIAL][Lectures]                                | 15                 |
| Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises] | 10                 |
| Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]     | 15                 |
| Formative Assessment [PRESENCIAL][Assessment tests]                             | 5                  |
| Study and Exam Preparation [AUTÓNOMA][Self-study]                               | 67.5               |
| Global activity   |                    |
| Activities  | hours              |
| Class Attendance (theory) [PRESENCIAL][Lectures]                                | 15                 |
| Formative Assessment [PRESENCIAL][Assessment tests]                             | 5                  |
| Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]     | 15                 |
| Study and Exam Preparation [AUTÓNOMA][Self-study]                               | 67.5               |
| Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises] | 10                 |
|   | Total horas: 112.5 |

| 10. Bibliography and Sources |            |                     |      |      |      |             |
|------------------------------|------------|---------------------|------|------|------|-------------|
| Author(s)                    | Title/Link | Publishing<br>house | Citv | ISBN | Year | Description |

| Miguel Angel Sánchez Romero                | Cuestiones y problemas resueltos<br>de dirección y gestión de<br>proyectos | Ediciones UPV                          | 978-84-8363-239-0    | 2008 |                   |
|--|--|--|----------------------|------|-------------------|
| Claudia Alcela                             | Manual para la certificación PMP :<br>cómo aplicar la guía del PMBOK       | Fundación<br>Confemetal                | Fundación Confemetal | 2014 |                   |
| Demetrio Fuentes                           | Apuntes asignatura   |  |                      |      | Plataforma Moodle |
| Antonio Colmenar Santos                    | Gestión de proyectos con Microsoft<br>Project 2013                         | Ra-Ma                                  | 978-84-9964-502-5    | 2014 |                   |
| Marta Fernández Diego, Nolberto<br>Munier. | Bases para la gestión de riesgos<br>en proyectos                           | Universidad<br>Politécnica<br>Valencia | 978-84-8363-573-5    | 2014 |                   |