



COURSE DATA

DATA SUBJECT

Code: 34880

Name: Engineering, society and university

Cycle: Undergraduate Studies

ECTS Credits: 6

Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1403 - Degree in Telematics Engineering	Escola Tècnica Superior d'Enginyeria	1	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1403 - Degree in Telematics Engineering	Engineering, society and university	COMPULSORY

COORDINATION

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SUMMARY

The subject "Engineering, Society and University" is a compulsory first course in Telematics Engineering. Set to a commitment of 6 ECTS taught in the first semester of the first course.

In this area, aims to place the new students in the context in which they develop both their studies and their profession once they graduate. To do this, the subject is divided into two main blocks. The first of these aspects work aimed at facilitating the integration of college students, providing them with knowledge and tools to facilitate the transition from high school to college.

The second section provides an overview of engineering in their various specialties and in particular of one of the Telematics Science viewed from the perspective of their relations with science, technology, economics, society and the environment. These show the profession to reflect on the implications of this in the development of societies, stressing at all times, in the ethical and environmental engineer / a as well as the principles of equal opportunity, democratic values and a culture of peace.

The main objectives of the course are:

- Facilitate the incorporation and integration of students into university life, especially in studies of



Telematics Engineering publicizing:

- the structure and organization of the University of Valencia
- services and human resources, administrative and information offered by the University of Valencia
- objectives, content and planning studies.
- Develop an action plan to guide and tutorial follow the process of joining the university.
- Encourage student participation in representative bodies and academic extracurricular activities.
- Develop transferable skills, time planning and study skills, teamwork, management of information technologies and communication tools for calculation and presentation of documents, reports, and legislative literature search, basic laboratory techniques and experimentation.
- Provide a historical perspective of engineering, its major periods and problems, all within the context of its relations with science, technology, economy, society and the environment, according to the conclusions offered by numerous investigations academic research on these issues.
- Provide a vision of sex / gender system given equal opportunities, incentives and obstacles of women in the areas of engineering.
- Provide an overview of the features of the scientific and technical terminology.
- Encourage and foster in students those values and attitudes that should be inherent to an engineer.
- To disseminate the profiles and the areas of performance engineering graduates.

The course contents are:

- Introduction to college. Mentoring program for new students. Structure of the university. Curriculum. Study techniques and troubleshooting. Tools Access to Information: Library, corporate website, corporate email, e-learning platform.
- Engineering and society:
 - The Engineer in the company and management. Professional ethics.
 - Sustainable development and environmental responsibility.
 - Equal opportunities and gender: incentives and barriers.

To cover the course content is organized into two parts distributed according to:

Part I. Joining the University and the Graduate studies in Telematics-topics 1 to 9.

Part II. Engineering, Telematics Engineering and Society: Thematic units 10 to 14.

The faculty members teaching this course are part of the "Grupo Consolidado de Innovación Docente en Metodologías Docentes Colaborativas y Competitivas", participating in the proposal "Xarxa d'Innovació Docent" with reference UV-SFPIE_FO13-147196.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

1403 - Degree in Telematics Engineering



G4 - Ability to solve problems with initiative, decision-making and creativity, and to communicate and transmit knowledge, abilities and skills, understanding the ethical and professional responsibility of the activity of a telecommunications technical engineer.

G7 - Ability to analyze and assess the social and environmental impact of technical solutions.

G9 - Ability to work in a multidisciplinary environment and in a multilingual group and to communicate, in writing and orally, knowledge, procedures, results and ideas related to telecommunications and electronics.

DESCRIPTION OF CONTENTS

1. Host activity

Welcome session. Objectives of the studies. Organization of the first course: school calendar, timetable, exam schedule. Agenda.

*Conference: The transition to the University of Valencia.

2. The University of Valencia. Presentation and structure

History of the University. Mission. Bodies: Senate, Governing Council, President, Government Team. The Board of Directors. Campus and Centers.

Activities:

*Questionnaire structure of the University of Valencia

*Locating and Research Centers

3. ETSE

Organization of School: Central Board, Departments, Commissions. Academic Title Committee. ADR and student representation. Secretariat. Facilities. Quality programs, mobility and placement. Web ETSE.

Activities:

*Questionnaire about ETSE structure

*Location of student representatives in different structures

*Collection of times and places of tutoring for students corresponding to first year subjects.

4. Resources and Services at University of Valencia

SEDI CAL, OPAL, University Library, Physical Education and Sports, Students, SFP, Safety, Health and Environmental Quality. Virtual Secretary. Email. Virtual Classroom. Web of the University of Valencia.

Ativities:

*Special presentations by staff of the services of most interest to students



5. Studies of Telematics Engineering

Legal Framework. Curriculum of the University of Valencia. Curriculum at other universities. Postgraduate training.

Activities:

- *Analysis of the sequencing of materials for the acquisition of competencies of the grade
- *Consultation and comparison of curricula from other Spanish universities and / or European.

6. Tutorial Action Plan for new students

Tutoring and guidance on topics of subjects, study methods, planning of activities and difficulties detection and monitoring of incorporation.

Activities:

- *Individual or group meetings with the tutor

7. Work planning and study techniques

Agenda and organization of the planning study in higher education: planning for the short, medium and long term. Factors influencing the study. Reading. Based teaching techniques and active study, underline and outline, abstract, memorization and recitation. Structuring reports.

Activities:

- *Task planning staff work
- *Homework on study skills

8. Introduction to research laboratories in Telematics Engineering.

Introduction to research laboratories in Telematics Engineering

Installing virtual machines, and vision of different operating systems.

This unit consists of one session. Previous work is done outside the classroom by the student. The students will have much previous work to be performed as the script of the practice in advance.

The work to be performed in the session will be completely divided into sections, items or milestones, and will be structured so that it can be completed in hours of each session.

Activities:

- *Introduction to Linux OS and install a virtual machine

9. Introduction to ICT tools in studies of Telematics Engineering

Search tools, handling word processing and presentation programs.



This unit consists of three sessions. In all previous work is done outside the classroom by the student. The students will have much previous work to be performed as the script of the practice in advance.

The work to be performed in the session will be completely divided into sections, items or milestones, and will be structured so that it can be completed in hours of each session.

Activities:

*Preparing a report

*Developing a presentation

10. History of technology

Major periods in the history of techniques. Introduction: primitive techniques, technology in the ancient world, the Middle Ages and the Scientific Revolution. Industrial Revolution. Technology in the s. XIX. Century technoscience XX.

Activities:

*Activity on the history of technology

11. Science, Technology and Society

Introduction. Technological Systems Technological innovation and scientific research. Dissemination and transfer of technological developments. Technology and gender. The participation of women in technology. Technology and economic development. Technology and the environment. Technology and Culture.

Activities:

*Questionnaire on Science, Technology and Society

12. Working methods in science and technology

Introduction to the problem of scientific method. Scientific and technical terminology. Information technology: oral communication, written and graphic. The technical report. The patenting and protection of the invention. Circulation of information on science and technology. Information retrieval, databases, encyclopedias, reference books.

Activities:

*Activity related to the location of a patent and the analysis of its structure and content.

Professions and occupations in the field of science and technology. Scientific and technological disciplines. Specialties: training and development. The teaching of science and technology. The control of professional practice. The role of expert in contemporary societies. Technology and risk society. Action areas of engineering industry, utilities, public administration. Professional associations. Ethics and professional ethics. Present and future challenges of technology.



13. The engineering profession

Professions and occupations in the field of science and technology. Scientific and technological disciplines. Specialties: training and development. The teaching of science and technology. The control of professional practice. The role of expert in contemporary societies. Technology and risk society. Action areas of engineering industry, utilities, public administration. Professional associations. Ethics and professional ethics. Present and future challenges of technology.

Activities:

*Activity on the profession and / or ethical problems in engineering.

14. Telematics engineering and the telematics engineer

The emergence and evolution of Telematics engineering. Definition of Telematics engineering. The Telematics engineer. Functions of the engineer in the utility and administration. Current challenges for Telematics engineering

Activities:

*Conferences for professionals from various fields of Telematics engineering

Guided visit to the Computing Service of the University of Valencia

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	25,00
Laboratory	10,00
Classroom practices	25,00
Total hours	60,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	40,00
Independent study and work	0,00
Preparation of lessons	35,00
Preparation for assessment activities	15,00
Resolution of case studies	0,00
Total hours	90,00

TEACHING METHODOLOGY

The development of the course is structured around the theory classes, practical classes and seminars, visits, lectures, tutorials and completion of work.



In the lectures using the model of lecture. The teacher will present on presentation and / or explain the contents of each issue to highlight those key aspects of comprehension. (G4), (G7)

Practical classes and seminars as an educational form in which students address, under the direction and supervision of staff, carrying out work and the presentation and discussion of issues developed by students. Understand the activities in the computer classroom (see web pages, databases, using tools, etc.). In the laboratory (basic techniques) or workshops (study skills workshops, presentations, etc.). (G4), (G7), (G9)

To complement this training course is scheduled to view the facilities and services of the university and companies in the field telematics engineering, as well as a series of lectures by professionals who provide students with the vision of the profession and field performance of graduates. Some of these conferences and visits can take place outside the scheduled time for classes. (G4), (G7)

The tutorials in this course will be scheduled for guidance in matters of subjects, study methods, business planning and detection of problems and to monitor the incorporation of the student to college. (G4), (G9)

The proposed work will include both the student reporting and work as the development of questionnaires to prepare and / or strengthen the most important concepts of each topic. Some of these activities will be held in class and the rest will have a timetable for completion and delivery by the students. (G4), (G7), (G9)

EVALUATION

The assessment of student learning will be realized following two models, Type A (or continuous assessment) and Mode B, which will be directed to verify that they have assimilated the basic concepts and they have worked on skills acquisition.

Method A - Continuous evaluation.

Continuous assessment: degree of participation and involvement in the teaching-learning process, taking into account participation, planned activities and completion of questionnaires and proposed work and grading. The percentage allocation of each part of continuous assessment is as follows:

Participation: 10% (up to a point of the final grade for the realization of all activities).

Evaluable questionnaires and activities: 70% (in the virtual classroom quizzes, activities in the classroom and laboratory sessions, etc.).

Final Work: 20%.

A minimum mark of five over ten at the final work is required to pass the subject.

Method B.

In mode B, there will be a test of basic knowledge and skills in the official date. Finally, for students who carried out the questionnaires, activities and work for continuous assessment, will be considered and evaluated up to 2.5 points out of 10.

In summary, the weighting of each part of the mode B will be:

Theoretical and practical examination in the official call: 75%

Questionnaires and assessments carried out activities in the continuous evaluation: 25%

Students who choose the continuous assessment (Category A) and do not pass the subject or do not perform 80% of all activities (questionnaires, work, memories, etc..) will have to attend to the first call exam and evaluation form will then be the mode B. In the second round evaluation form is the form B.



The obvious copying or plagiarism of any activity that is part of the evaluation will mean the impossibility of passing the subject, subsequently subjecting yourself to the appropriate disciplinary procedures indicated in the PROTOCOL FOR ACTION AGAINST FRAUDULENT PRACTICES AT THE UNIVERSITAT DE VALÈNCIA (ACGUV 123/2020).

The assessment procedure follows the guidelines of the Reglament de Avaluació i Qualificació de la Universitat de València (<https://webges.uv.es/uvTaeWeb/MuestralnformacionEdictoPublicoFrontAction.do?accion=inicio&idEdictoSeleccionado=5639>)

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