Syllabus
2025 - 2026

FICHA TÉCNICA DE LA ASIGNATURA

Datos de la asignatura	
Subject name	Business Ethics and CSR
Subject code	DOI-MIT-682
Mainprogram	Official Master´s Degree in Telecommunications Engineering
Involved programs	Grado en Análisis de Negocios/Business Analytics y Máster Universitario en Ingeniería de Telecom. [Sixth year] Máster Universitario en Ingeniería de Telecomunicación + Máster Universitario en Big Data [Second year] Máster Universitario en Ingeniería de Telecomunicación [Second year] Máster Universitario en Ingeniería de Telecomunicación y Máster en Ciberseguridad [Second year] Máster Universitario en Ingeniería de Telecomunicación + Máster in Smart Grids [Second year]
Level	Posgrado Oficial Master
Quarter	Semestral
Credits	3,0 ECTS
Type	Obligatoria
Department	Department of Industrial Organization
Coordinator	José Ángel Ceballos (Coord.)
Schedule	It will be determined at the beginning of the course.
Office hours	It will be determined at the beginning of the course.

Datos del profesorado	
Teacher	
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Teacher	
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DATOS ESPECÍFICOS DE LA ASIGNATURA

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Contextualización de la asignatura

Aportación al perfil profesional de la titulación

A feature that is increasingly common in some engineering courses – such as those taught at ICAI – is their generalist nature. And a clear reflection of this is the extraordinary range of professional activities that these engineers can access. It is not unusual to find engineers developing their professional career not only in industrial organisations, or in technological profile positions, but also in sectors of activity such as finance, auditing, business consultancy and, ultimately, any activity traditionally considered "management". On the other hand, the number of engineers who direct their professional life towards the development of their own business project is also increasing.

From this perspective, far from being a profession closed in on itself, professional practice demands from these engineers the challenge of knowing how to contribute their effort and knowledge in contexts where they will inevitably and daily be faced with dilemmas and implications of an ethical nature in the professional field, which will not only affect them personally, but will also have consequences beyond their own lives.

In order to deal with these situations, mere ethical sensitivity is not enough, which sometimes translates into assessments that are the result of mere uncritical subjective intuitions. On the contrary, they must be able to perceive the ethical implications of the situations they face and the consequences that may follow from their decisions, in order to be able to assume them responsibly. And this from the perspective of the rational and well-founded justification of their ethical criteria and assessments.

For all these reasons, together with the specific technical training of their respective specialties, it is essential that the future engineer is trained to know how to address in a solvent and responsible manner the ethical implications of their activity.

Although this is a subject specifically oriented to the ethical aspects that arise in the professional practice of the engineer, among the general principles that this subject takes into account are the Sustainable Development Goals and that any professional activity must be carried out from respect for fundamental rights and equality before the law. In this sense, respect for and promotion of Human Rights and the principles of universal accessibility for people with disabilities are specifically promoted as a basic condition for a society based on coexistence and dialogue.

Prerrequisitos

None.

Competencias - Objetivos

Competencias

GENERALES

CB03	Saber evaluar y seleccionar la teoría científica adecuada y la metodología precisa de sus campos de estudio para formular juicios a partir de información incompleta o limitada incluyendo, cuando sea preciso y pertinente, una reflexión sobre la responsabilidad social o ética ligada a la solución que se proponga en cada caso
CB05	Saber transmitir de un modo claro y sin ambigüedades a un público especializado o no, resultados procedentes de la investigación científica y tecnológica o del ámbito de la innovación más avanzada, así como los fundamentos más relevantes sobre los que se sustentan
CG09	Capacidad para comprender la responsabilidad ética y la deontología profesional de la actividad de la profesión de Ingeniero de Telecomunicación

CG11	Capacidad para saber comunicar (de forma oral y escrita) las conclusiones- y los conocimientos y razones últimas que las sustentan- a públicos especializados y no especializados de un modo claro y sin ambigüedades
CG12	Poseer habilidades para el aprendizaje continuado, autodirigido y autónomo
ESPECÍFICAS	
CGT02	Capacidad para la elaboración, dirección, coordinación, y gestión técnica y económica de proyectos sobre: sistemas, redes, infraestructuras y servicios de telecomunicación, incluyendo la supervisión y coordinación de los proyectos parciales de su obra aneja; infraestructuras comunes de telecomunicación en edificios o núcleos residenciales, incluyendo los proyectos sobre hogar digital; infraestructuras de telecomunicación en transporte y medio ambiente; con sus correspondientes instalaciones de suministro de energía y evaluación de las emisiones electromagnéticas y compatibilidad electromagnética

Resultados de Aprendizaje	
RA1	Identificar, analizar y proponer soluciones a los conflictos éticos que puedan suscitarse con motivo del ejercicio profesional.
RA2	Distinguir entre ética propiamente dicha y códigos corporativos u otros modelos de comportamiento más o menos formalizados.
RA3	Identificar los aspectos estructurales, organizativos y funcionales de una organización, que tienen una incidencia directa en la calidad ética de los comportamientos de los miembros de dicha organización.
RA4	Identificar distintos modelos de razonamiento moral y vincularlos a las diferentes teorías éticas.
RA5	Valorar una política de Responsabilidad Social, tanto desde la perspectiva de su fundamentación teórica, como de su desarrollo práctico.
RA6	Entender debidamente la relación entre la Sostenibilidad, de una parte con la Ética y la Responsabilidad Social, y de otra con la Economía, la Gestión de Empresas y los desarrollos tecnológicos.
RA7	Presentar y defender, tanto oralmente como por escrito, soluciones a conflictos éticos.

BLOQUES TEMÁTICOS Y CONTENIDOS

Contenidos – Bloques Temáticos

Block 1: Profession and Professional Ethics. Basic concepts.

Block 2: Moral reasoning and ethical theories.

Block 3: Ethical assessment and interest groups.

Block 4: Formalized models and codes.

Block 5: Professional responsibility and social responsibility. Ethical implications in the design and development of AI.

Block 6: Growth and sustainability models.

METODOLOGÍA DOCENTE

Aspectos metodológicos generales de la asignatura

Metodología Presencial: Actividades

Lectures and general presentations. Presentation of the main concepts and procedures through explanation by the teacher. It will include dynamic presentations, small practical examples and the regulated or spontaneous participation of the students.	CB03, CB05, CG09, CG11, CG12, CGT02
In-class analysis of practical cases. Analysis of real situations to place the student in context. The analysis will be carried out by the teacher and the students in a cooperative manner.	CB03, CB05, CG09, CG11, CG12, CGT02

Metodología No presencial: Actividades

The main objective of the non-classroom work is to understand and comprehend the theoretical concepts of the subject, as well as to be able to put this knowledge into practice to solve different types of problems.

Study and analysis of practical cases to be solved outside of class time by the student. The student must use and internalize the knowledge provided in the subject. The correction in class may be carried out by one of the students or the teacher, depending on the case. The individual correction of each exercise may be carried out by the teacher, the student himself or another classmate, depending on the case (exchange method).	CB03, CB05, CG09, CG11, CG12, CGT02
Individual practical work. Learning activities that will be carried out individually outside of class time, which will require some type of research or the reading of different texts.	CB03, CB05, CG09, CG11, CG12, CGT02

RESUMEN HORAS DE TRABAJO DEL ALUMNO

CLASSROOM HOURS	
Clase magistral y presentaciones generales	Resolución en clase de problemas prácticos
30.00	15.00
NON-PRESENTIAL HOURS	
Estudio y resolución de problemas prácticos fuera del horario de clase por parte del alumno	Trabajos de carácter práctico individual
30.00	15.00
ECTS CREDITS: 3,0 (90,00 hours)	

EVALUACIÓN Y CRITERIOS DE CALIFICACIÓN

The use of AI to produce full assignments or substantial parts thereof, without proper citation of the source or tool used, or without explicit permission in the assignment instructions, will be considered plagiarism and therefore subject to the

University's General Regulations.

Evaluation activities	Evaluation criteria	Weight
Final exam of a theoretical and practical nature. It will be a single exam, and cannot be divided into different exams under any circumstances.	The following will be assessed: • Understanding of concepts. • Application of concepts to the resolution of practical problems. • Analysis and interpretation of the results obtained in the resolution of problems. • Presentation and written communication.	40
Performance Evaluation • Practical individual work • Group work • Active participation in class • Short exercises during class	The following will be taken into account: • Understanding of concepts. • Application of concepts to the resolution of practical problems. • Analysis and interpretation of the results obtained in problem solving.	60

Calificaciones

GRADING CRITERIA:

- For written assignments (individual, group, etc.), submission of the document on time and in the correct manner is considered an essential requirement for presentation and defense before the professor. The grade for the assignment will be the same as the defense.
- Failure to comply with the deadline or formal requirements will result in the denial of the defense and the subsequent failure of the assignment.
- The average grade for assignments, cases, or reports will only be determined when the final exam is passed (minimum passing grade: 5.00). If the exam is failed, the course will be graded with its grade.
- Committing a serious academic offense, such as plagiarizing previously published materials or copying an exam or other assessed activity, may result in disciplinary proceedings and the loss of any sittings established by the faculty regulations.
- For written assignments, a Turnitin score above 30% will require justification.
- **COLLABORATION WITH AI (Level 3)**:
  - AI can be used to assist in completing the assignment, including idea generation, writing, feedback, and assessment. Students must critically evaluate and modify the outputs suggested by the AI, demonstrating their understanding.
  - You can use AI to perform specific tasks, such as writing texts, refining and assessing your work. You must critically evaluate and modify any AI-generated content you use.
  - Misuse of AIs by students will be considered a serious offense, according to the University's General Regulations, art. 168.2.e: "carrying out actions intended to falsify or defraud academic performance assessment systems."
  - The consequences of this may include "temporary expulsion for up to three months or a ban from taking the exam in the next session, or the imposition of a sanction, in one or more subjects in which the student is enrolled, [...] in addition to a failing grade (0) in the respective subject, [...] [and] a ban from taking the exam in that subject in the next session."
  - The use of AI to create complete or relevant parts of papers, without citing the source or tool, or without being expressly

permitted in the work description, will be considered plagiarism and regulated in accordance with the University's General Regulations.

- Unjustified absence from more than 15% of class sessions may result in the loss of the right to take the exam in the sessions established by the Faculty's regulations (Article 93.1 of the General Regulations).
- Failure to attend the first hour of a double class will result in the application of a failure to attend the entire session, regardless of whether the student attends the second hour.
- The professor will determine the attendance monitoring system at the beginning of the course and will periodically inform students of their progress.
- Cases, assignments, or reports submitted after the deadline will be considered unsubmitted.
- Failure to submit, present, or complete cases, assignments, reports, or exercises will result in a fail (zero) in the corresponding grading section.
- If the subject is failed in the regular session, the grades for the assignments, cases, reports, or exercises provided in this teaching guide and submitted in the regular session may be applied to the extraordinary grade. In this case, the student will only be required to complete the failed or unsubmitted assignments, cases, reports, or exercises.
- For our own students who are on an exchange abroad and must take an exam for the subject, or in any other case where class attendance is not required, the grading system will consist solely of a final theoretical exam on the content determined by the Area Coordinator. In these cases, the final grade will be the grade obtained on the exam.
- In the case of exchanges (Out), it is the student's responsibility to contact the instructor well in advance to specify the exam content.
- Unless otherwise stated, in all exam sessions, assignments, and exercises of any kind must have a grade of at least 5.00 out of 10.00 to pass.

BIBLIOGRAFÍA Y RECURSOS

Bibliografía Básica

Villas, M.; Camacho, J.. Manual de Ética Aplicada en Inteligencia Artificial. Anaya, 2022.

Bilbao, G.; Fuertes, J.; Guibert, J.M. (2006). Ética para Ingenieros. Bilbao: Desclée De Brower.

Camacho Laraña, I., Fernández Fernández, J. L., González Fabre, R., & Miralles Massanés, J. (2012). Ética y responsabilidad empresarial. Bilbao: Desclée De Brower.

Díaz de la Cruz, C., & Fernández Fernández, J. L. (2016). Marco conceptual de la ética y la responsabilidad social empresarial: un enfoque antropológico y estratégico. Revista Empresa y Humanismo, vol. XIX Nº 2, 69-118.

Bibliografía Complementaria

A lo largo del curso se facilitará bibliografía específica actualizada.

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