

Materia 5_01: Human, Cultural, Artistic & Social Sciences for engineers

Materia:	Human, Cultural, Artistic & Social Sciences for engineers	ECTS:	7
Descriptores	<ul style="list-style-type: none"> Ethics of Technology, Professionalism, role and position of the engineer in society, differences and similarities between technology, science and philosophy, ethical decision making. Applied Ethics, corporate values, professional ethics and social and professional, Ethical Values, Engineering Values, Corporate Social Responsibility (GRI, SDG, SA8000, ISO26000...) Creativity, Aesthetics, Art History, Disruption, Perception, Motivation, Holistic, Innovation, Cultural Change, Resistance to Change, Dominant Logic, Framing, open Thinking, Empathy Communication, Cognitive Paradigm, Qualitative Analysis, Emotional Intelligence, Attitudinal Behavior, Social & User Behavior, Buyer Persona, Usability, User Centered Design 		
Objetivos generales	<p>This subject has the objective of (1) knowing and reflecting critically on the impact of the ethical dimension in the engineering profession; (2) Developing the capacity for moral segments and responsible decision-making in a professional context; (3) Developing the competence to apply the several procedures for managing ethics in organisations (code of ethics, ethical auditing, etc.) ; (4) Incorporating and integrate a humanistic dimension and the human being (in its emotional, cultural, aesthetic, social and behavioural aspects), in open thinking decision-making; (5) to analyse the evolution of changes in Culture, Society and Art, in relation to the creation, demand and use or consumption of products, solutions and services; (6) to propose a systemic design centred on the user (User-Centred Design), under the light of the Cognitive Paradigm and the analysis of the behaviors of users and consumers.</p>		
Competencia	<p>CE [5-1]: Being able to propose creative and innovative solutions to complex situations or problems, 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 as well as making decisions that include a reflection on both the cultural, aesthetic and social context of the moment, as well as on the analysis of the user or potential consumer of the solution.</p>		
Resultados de aprendizaje	<ul style="list-style-type: none"> Look at their own domain from a historical and comprehensive perspective. Reflect about see the relationship between technology, science and philosophy. Develop a critical perspective about their own work. Identify and analyse the main ethical problems in business and professional practice. Acknowledge the critical ethical values for responsible innovation and responsible decision-making. Being able to design and apply the main procedures and instruments for dealing with ethics in organisations and for developing ethics in research and innovation. Reflect on their work using aspects related to the evolution of art, aesthetics, and social changes Analyse a solution to a problem under different sociological, artistic and creative parameters. Develop a self-critical and empathetic awareness in the design of creative innovation Know principles of the Cognitive Paradigm and Digital Anthropology that allow understanding the basic behavior patterns of users and/or clients. Being able to analyse users and/or consumers both individually and socially, through qualitative methodologies Integrate User-Centred Design into solution design 		
Métodos de evaluación	<ul style="list-style-type: none"> Evaluation: Academic work, Analysis of practical cases, Written open-ended test, Objective test. Evaluation instruments: Checklists, Peer evaluation, Rubric and Rating scales 		