2IN5110 – Ethics and Responsibility

Instructors: Jean-Marc Camelin
Department: DÉPARTEMENT DÉVELOPPEMENT PROFESSIONNEL ET MÉTIERS DE L'INGÉNIEUR
Language of instruction: FRANCAIS
Campus: CAMPUS DE PARIS - SACLAY
Workload (HEE): 40
On-site hours (HPE): 27,00
Elective Category : Business Sciences
Advanced level : Yes

Description

This elective course addresses the issue of ethics and responsibility for an engineer, using concrete situations described during the 1 week seminar (witnesses, videos, theoretical contributions) as engineers are facing them, and leads to an awareness and a capacity of questioning individually the adequacy between their actions and decisions and their own values.

High-level engineers have a key role in the evolution of our society. This course is designed for students intending to pursue a career either in management, potentially as very high-level decision makers (decision making in conscience), or in research, including fundamental research (representation of future uses of their research). Objectives are to:

- Expose each student to the ethical, social, societal, economical and political consequences of their actions as an engineer, in an increasingly multicultural environment
- Help students develop an awareness of ethical and societal issues in their future professional career
- Educate students on what influences their decision-making, beginning with their choice of curriculum and job

Quarter number

Intensive week at the end of the SG8

Prerequisites (in terms of CS courses)

Advanced level elective requesting to have done the 2nd year API on ethics

Syllabus

- Introduction to ethics: responsibility, concept, history, reference texts, tangible actions involved, meaning.
- Illustration of the problem: labor and work (concept, role, suffering at work, empowerment), environment (sustainable development, decisions, impact), world global issues
- Understanding the System: the current system (capitalism, economic regulation, impact on the actions of decision makers, measures, GDP), alternatives (how to think the world differently, microcredit, virtual economy), science and the engineer of the 21st century (role of the engineer within the system, his/her influence on ethical issues, research and its impact)
- Ethic as an action: individual issues (I decide and act in conscience), political decision (provide guidance to the whole society), broadening the issue (global-international-national-local levels, time representations in the short-medium-long terms, the CEO decision-making process: strategy, innovation), you as a student (how I understand my environment and how I project myself into the future as an engineer, my gap year, my professional dreams)

Class components (lecture, labs, etc.)
Alternate plenary sessions and half-promo workshops, conferences, Alumnis witnesses

Grading
Oral presentation of group project conducted throughout the seminar
Active participation during conferences
Competencies auto-evaluation and peer-evaluation

Course support, bibliography
Course material, bibliography: provided to students in the introduction of the course

Resources
Course material, bibliography: provided to students in the introduction of the course
Teaching team:

- Fabienne Bergé - enseignante coordinatrice de pôle projet et de l'électif DYW – psychologue du travail
- Bruno Lefèbvre - Associé Fondateur Alteralliance - spécialiste psycho-dynamique du travail
- Patricia Midy - enseignante APP/API - coach indépendante

- Gilles Lecerf - Enseignant HEC en Philosophie & technologie
- Témoignages d'Anciens
- Conférenciers extérieurs

Learning outcomes covered on the course

- To take the necessary step back from the professional context to consider the ethical aspect of the action
- Understand the constraints of the socio-economic system to be able to question them
- Critical thinking and discernment of the system
- Transforming difficulties and constraints into opportunities to pursue one's career while respecting one's personal ethics

Description of the skills acquired at the end of the course

C3.1 Observe and allow oneself to criticize the world as it is, to doubt, to go beyond injunctions, to question one's initial assumptions, to allow oneself to learn from one's failures, to diagnose

C5.2 Listening, making oneself understood and working with actors of diversity, cultures, codes, training, disciplines, etc. varied

C7 Know how to convince

C9 (C9.1-2-3-4) Think and act as an ethical, responsible and honest engineer, taking into account the environmental, social and societal dimension