2IN2330 – Science, Technology, Society

Instructors: Cynthia Colmellere
Department: DÉPARTEMENT SCIENCES HUMAINES ET SOCIALES
Language of instruction: FRANCAIS, ANGLAIS
Campus: CAMPUS DE PARIS - SACLAY, CAMPUS DE RENNES, CAMPUS DE METZ
Workload (HEE): 45
On-site hours (HPE): 27,00

Description
These courses aim at helping future engineers understand the representations of science and technical progress to better their action and its effects. These courses are based on scientific studies, sociology of innovation, history of science and techniques, philosophy, ethics, and politics.
Students will be able to understand and analyze in various contexts and situations:
• The elaboration of the scientific and technical knowledge ·
• Distribution,
• Appropriation,
• Practices
• effects on individuals and society, specifically in terms of controversies

Quarter number
SG6 and SG8

Prerequisites (in terms of CS courses)
none

Syllabus
Examples of courses (in French and English) :

- Historical, Philosophical and Ethical Perspectives on AI and Data Science
- An introduction to the philosophy of science from the perspective of measurement
- Introduction to scientific and technical controversies

Grading
• Written essay to be delivered within ten days after the end of the course (at least 50% of the final mark)• Oral participation and presentations• Individual and team works.

Resources

- The courses are given in classes of a maximum of thirty students by a teacher specialized in the proposed subject.

Description of the skills acquired at the end of the course

-Contextualize the problems engineers will address as professionals to understand the different dimensions (technical, managerial, human, organizational, économical) and their direct connection with the dynamics of society

- Identify the normative frameworks, world views, economic, ethical, and societal issues of the different actors concerned (employees, citizens, scientists, or institutions), and consequently their respective positions
- Understand situations of innovation, uncertainty, controversy, crisis, economic and technological change, etc., to build the most appropriate solutions.
- Knowing how to reconcile, articulate and integrate technical and scientific ("hard") knowledge and knowledge dealing with the human, social and cultural dimensions into their analyses, decisions, and actions.