Summary
This master course enables students to sharpen their proficiency in tackling ethical and legal challenges linked to Artificial Intelligence (AI). Students acquire the competence to define AI and identify ethical and legal questions linked to its conception and increased use in society.

Content
AI is used as shortcut-concept to identify a number of computational systems producing intelligent behavior, i.e., complex behavior conducive to reaching goals. AI systems are increasingly used across society. They raise conceptual issues (how to define AI?), technological-ethical issues (how should AI systems be conceived?), legal issues (how to define the responsibility of an AI system? how to regulate AI?) and social-political issues (which justice questions does the deployment of AI raise?)

The following issues will be dealt with:
- What is ethics?
- What is an AI system?
- Who is responsible for the actions of an AI system?
- What are the most pressing ethical questions in the phase of conception of AI systems?
- How should we design AI system in order to overcome ethical-legal challenges?
- Should we regulate AI?
- How should we address the consequences of the wide deployment of AI systems?

Keywords
artificial intelligence, ethics, law, data, regulation, responsibility

Learning Prerequisites
Required courses
No pre-requisite

Learning Outcomes
By the end of the course, the student must be able to:
• Define the concept of AI
• Assess / Evaluate the contexts in which AI is deployed
• Systematize general principles (law and ethics)
• Analyze the different senses/conceptions/interpretations of agency, autonomy and responsibility
• Develop principles for the conception of AI system
• Distinguish legal and ethical arguments

Transversal skills

• Demonstrate the capacity for critical thinking
• Take account of the social and human dimensions of the engineering profession.
• Respect relevant legal guidelines and ethical codes for the profession.
• Use a work methodology appropriate to the task.

Teaching methods

The course will be organized as an interactive and participative course. For the weekly course: students have to read texts and to be ready for critical discussion. For the weekly exercise: students have to engage in group discussions. The course requires reading complex texts in English.

Expected student activities

Weekly reading of preparatory texts
Active participation in class, both course and exercise

Assessment methods

Students will be assessed in the following way:
- Mid-term: students will have to answer 2 questions during class (compulsory, no grading)
- Open book written exam during the exam session (100% of the grade)

Supervision

Office hours No
Assistants Yes
Others Upon appointment with Dr Rochel

Resources

Bibliography
All resources will be made available on moodle.
To start with: AI Ethics (Mark Coeckelbergh, MIT 2020)

Ressources en bibliothèque
• AI Ethics / Mark Coeckelbergh

Moodle Link
• https://go.epfl.ch/DH-415