EPFL

MGT-493   **Information security & digital trust**
Humbert Mathias

Cursus		Sem.	Type
Managmt, dur et tech		MA1, MA3	Obl.

Language of teaching	English
Credits	4
Session	Winter
Semester	Fall
Exam	Written
Workload	120h
Weeks	14
Hours	**3 weekly**
Lecture	2 weekly
Exercises	1 weekly
Number of positions	

Summary

Technology and information play a crucial role in today's societies and economies. The security and privacy aspects of information technologies are paramount to build digital trust. In this course, we address these aspects for prominent information technologies, from software to computer networks.

Content

The course will cover the following topics:

Applied cryptography
Authentication
Access control
Malware
Software security
Network security
Machine learning and security
Privacy
Security management
Economics of security

Learning Outcomes

By the end of the course, the student must be able to:

• Develop nuanced information security and privacy-centered analysis of digital ecosystems

• Identify and illustrate threats

• Propose solutions together with their pros and cons

Transversal skills

• Assess one's own level of skill acquisition, and plan their on-going learning goals.

• Demonstrate a capacity for creativity.

• Use both general and domain specific IT resources and tools

• Take account of the social and human dimensions of the engineering profession.

Teaching methods

Two hours of lectures and one hour of exercise session (exercises may have to be finished at home).

Assessment methods

The evaluation will be based on a final written exam (100%).

Resources

Virtual desktop infrastructure (VDI)
No

Moodle Link

- https://go.epfl.ch/MGT-493