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