EPFL

MGT-493	**Information security & digital trust**
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Cursus	Sem.	Type
Managmt, dur et tech	MA1	Obl.

Language of teaching	English
Credits	2
Session	Winter
Semester	Fall
Exam	Written
Workload	60h
Weeks	14
Hours	**2 weekly**
Courses	2 weekly
Number of positions	

Summary

The goal of this course is to provide the students with a global knowledge on the principles of information security and privacy required to build digital trust. It includes the threats raised by information technologies and the methodology and tools to identify, analyze and address them.

Content

The course will cover the following topics (from an information security point of view):

- cryptography
- information security properties metrics
- anonymization and de-anonymization
- networking
- web
- cloud computing
- mobile computing
- economics, human and social aspects
- emerging technologies (including blockchain)

By the end of the semester, the students will possess the skills and the â##security mindset" for performing a preliminary information security oriented analysis of a system and propose basic solutions to address potential threats.
The students will be given the opportunity to apply some of the concepts and techniques covered during the lecture through practical sessions / homework.

Keywords

digital trust, information security, privacy

Learning Prerequisites

Required courses

Basic computer and communication science (e.g., ICC).
Basic mathematics (probabilities, algebra, etc.)

Learning Outcomes

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

- Propose solutions
- Analyze systems

• Illustrate threats

Transversal skills

• Make an oral presentation.
• Give feedback (critique) in an appropriate fashion.

Teaching methods

Readings discussed in class (reflecting)
Practical sessions / homework (learning by doing)
Lectures
(Group) activities in class

Expected student activities

Exercices in class (identify threats, propose solutions)

Assessment methods

Writen exam (50%, min 3.5), graded homework (25%), oral presentation (25%)

Supervision

Office hours	Yes
Assistants	Yes
Forum	Yes

Resources

Notes/Handbook

Provided during the class on a per lecture basis.
Ross Anderson. 2021. *Security engineering: a guide to building dependable distributed systems* (3rd ed.).
Wiley Pub, Indianapolis, IN.

Moodle Link

• https://moodle.epfl.ch/course/view.php?id=16644