

SUPSI

Course C-I6041E Data Security and Blockchain

Course Outline

Angelo Consoli
SUPSI-DTI , Lugano-Viganello 2024/25

Course outline

- **Theory:**

- Understand the principles of data communication.
- Analyze typical problems relating to the creation and operation of computer networks.
- Understand the basic principles and architectures of computer networks.
- Acquire the knowledge needed to understand, design, implement network equipment and to configure the infrastructures of the data management systems.
- Learn the basics of computer systems security.
- Get familiar with cybersecurity and cyber threats.
- The current state of the art and the future trends of cybercrime.
- The role of AI in cybercrime and in the fight to cybercrime.
- Blockchain technologies.

Course references

- Materials published on: **www.icorsi.ch**
- Name of the course on iCorsi:
C-I6041E - Data Security and Blockchain (2025)
- **MS Teams link:**
https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F_%23%2F%2Fteam%2F19%3A5NnBDk-DexsSKOcp7Rmo1PpamxOfp_sT3piWNCqXIQa1%40thread.tacv2%2Fconversations%3FgroupId%3D47f21f07-5ab9-4b29-b74b-6e604e30f67d%26tenantId%3D832538a4-939e-4f12-952e-e33cf9e5689d&type=team&deeplinkId=d9aae2a5-c2d3-42c5-9ee3-0e056998bd23&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

Course outline

- **Laboratory:**
 - Acquire practical network management skills.
 - Know how to carry out a structured approach to solving network communication problems.
 - Practical knowledge of all the basic aspects of creating computer networks.
 - Learn the baseline tools for computer and network security.
 - Analyze data from cyberattacks.
 - Correlate and cluster datasets of computer systems and cyberattacks to identify threat actors.

Course evaluation

- The exam will take place in May 2025.
Format: written examination.
Students are allowed to use a personal resume of 8 pages (4 sheets).
- 3 of the lab project assignments reports, as well as the working attitude in the laboratory will be evaluated and their weight on the final evaluation is 35%
- Weight of the written exam: 65%