

# Security and Privacy

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## Summary:

The aim of the course is to introduce current problems of security and privacy. How these can be solved through technological approaches, e.g. incident response techniques, is discussed together with their legal and society limitations. Students will be introduced to the foundations of the topics through lectures. Based on this, current research and development are presented and discussed. Some aspects of each topic will be covered through practical work in a lab too. Because of time-constraints, only selected specialty areas will be covered in detail, while others will only be mentioned.

## Content (2 semester-hours combined lecture and practice):

Day 1: Lectures on security (Technical day)

Day 2: Lectures on privacy (Legal day)

Day 3: Lectures on computer forensics (Incident response day)

Day 4: Practices on security, privacy, and forensic problems (Practice day)

Day 5: Lectures on hot topics and examination (Discussion day)

Each day is designed for a duration of 8 units á 60 minutes.

In total 36 units plus a 2 unit examination and 1 unit reflection and feedback will be held.  
(Day 5 is shortened).

## Practical part

On the practice day, some of the theoretical knowledge obtained in the lectures will be applied to practical problems: Security, forensic, and privacy examples will be worked on by the participants under supervision and guidance.

## Examination

Participants may take a written examination on the last day. If students cannot take part there, submission of research papers are possible as well (this is only a subsidiary option).

## Required environment for practical part:

1. One computer for each student
  - a. Operating system of the computer must be Windows
  - b. CD-ROM drive required
  - c. 512 MB - 1 GB of free hard disk space for software and images to investigate
2. Possibility to install additional programs: Various software for forensic analysis
  - a. Evaluation/full versions will be provided by the teacher
  - b. Administrator rights on this computer are required!**

## Basic knowledge required by participants:

1. Knowledge about operating systems
2. Knowledge of networks, especially the Internet, and its protocols

Security or legal pre-education/knowledge is **not** required!

## Literature, software and other material:

A CD with all presentations, the software, and the scenarios is provided for the participants free of charge.