# Research Methods in IT Security

**Department**: 07 Computer Science and Mathematics  
**Course title**: Research Methods in IT Security  
**Hours per week (SWS)**: 4  
**Number of ECTS credits**: 5  

**Course objective**: The evaluation and assessment of secure and privacy-protecting systems and mechanisms is essential to understand their strengths and weaknesses. This requires a broad knowledge of research methodology. In this seminar, different study types (e.g. descriptive studies, relational studies, experimental studies), study paradigms (e.g. ethnography, laboratory studies, field studies, deployments) as well as common research methods (e.g. questionnaires, interviews, observations, experience sampling and crowdsourcing) are described.

The students work on selected topics independently: In particular, the various methodological aspects are presented in detail, selected use cases from research are presented, and strengths and weaknesses are identified and discussed with the other participants.

Apart from an in-depth methodological understanding, students will obtain the following key qualifications:
- the ability to read and understand original English literature
- the ability to create and give a presentation on a scientific topic in front of an expert audience
- the ability to contribute to discussions on scientific topics
- the ability to write longer scientific texts

**Prerequisites**

**Recommended reading**

**Teaching methods**: Presentation / Discussion  
**Assessment methods**:  
**Language of instruction**: English  
**Name of lecturer**: Prof. Dr. Florian Alt  
**Email**: florian.alt@hm.edu  
**Link**:  
**Course content**: see objective  
**Remarks**: 