Title of course	**IT-Security (adv. chapters)**
Responsible instructor	*Prof. Ralf C. Staudemeyer, Ph.D.*
Learning objectives	*This course teaches students to improve their ability to understand and master current developments in IT-Security and Privacy-Enhancing Technologies (PET). Students learn research techniques that they will apply on pre-selected research topics. Aside from a comprehensive literature research, students will develop a scientific contribution. Results will be presented in form of a conference contribution. This includes a presentation and an academic publication.*
Course contents	*This course takes place in form of an academic conference. Students go thought the typical phases of a scientific contribution: extended abstract, review, camera ready version, full paper and 30minutes presentation. All presentations will be in the course of an internal conference-like event open to all university members near the end of the semester. A selection of the written contributions will be published in form of a technical report. Overall, the event comes with few meetings of all participants. Questions that arise during the processing of the individual research topics are clarified within working groups and with the lecturer at regular individual meetings.* *Typical "hot" research topics are, for example, in the areas* • *_Security monitoring and visualization* • *_Internet-of-Things // Industry4.0* • *_Privacy-Enhancing Technologies* • *_Machine Learning in IT-Security*
Teaching methods	*lecture (2 SWS), exercises (2 SWS) students per course: restricted; exercises: 10*
Prerequisites	Selected sources for the preparation of current topics.
Suggested reading	▪ Carroll, J.M.:" Human-Computer Interaction in the New Millennium", ▪ ACM Press, New York, 2001. Cohn, M.: "User Stories Applied", Addison-Wesley, 2004. ▪ Online Courses of ACM addressing User Stories und User-Centred Design
Applicability	*Master of Applied Computer Science (MACS)* *Master Angewandte Medieninformatik (MaI)*
Workload	*Total 150 hours: Attendance: 60 hours, Self-study incl. exam preparation: 90h.*
ECTS credit points and weighting factor	*5 CP (Emphasis of the Grade for the final Grade 5/120)*
Basis of student evaluation	• *presentation (30min)* • *academic publication (5pages)*
Time	*2nd/ 3rd Semester (MACS/MaI)*
Frequency	*every semester*

Duration	*one semester*
Course type	*Obligatory course from the area IT-Security*
Remarks	Teaching language is English.