

Software Security

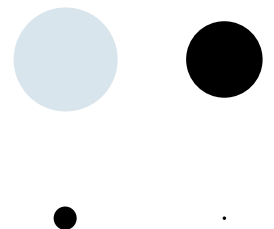
AIN

Hanno Langweg

00 Administrative Issues

Learning material and language policy

- All information is distributed via Moodle.
- Sign up:
 - ➔ Informatik
 - ➔ AIN
 - ➔ Softwaresicherheit / Software Security (Bachelor)
- Teaching material in English
- Instruction in English/German depending on presence of exchange students
- Exam questions+answers in English/German depending on your choice

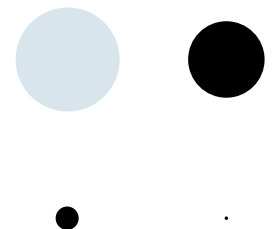


Workload

- 3 ECTS Software Security
- 3 ECTS = 90 h student workload
 - 14 lectures/exercise sessions $14 \times 2 \text{ h} = 28 \text{ h}$
 - Preparation, guest lectures, self-study, homework and exam preparation 62 h
 - $90 \text{ h} / 15 \text{ semester weeks} = 6 \text{ h} / \text{week}$
Software Security

Formal requirements

- Written exam K90 determines final grade
 - 50% Introduction to IT-Security
 - 50% Software Security
- Coursework
 - Pass 2 exercise sheets (out of 3)
- Exercise sheets not just for pass/fail, but also useful to prepare for final exam



Outline Software Security

1. Software Vulnerabilities
2. Offensive Security
3. Secure Programming
4. Source Code Analysis
5. Security Testing
6. Secure Software Development Lifecycle
7. Software Maintenance

Literature Software Security

- Gollmann (2011). Computer Security.
- Stallings/Brown (2014). Computer Security: Principles and Practice.
- McGraw (2006). Software Security: Building Security In.
~66 € paper
Library: idx/222, 0 copies

