

# Course Introduction

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**AMOS A01**

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To introduce students to agile methods by creating useful software.

- [1] Professional = ambition + collaboration with external partner
- [2] Agile methods = our focus here, specifically Scrum + XP
- [3] We teach both overall processes as well as best practices
- [4] Useful software is software that has value to someone!

# Course Learning Goals 2 / 2

- Learning objectives
  - Gain conceptual understanding and practical skills of using
    - agile software development methods
    - software project management tools
    - software development tools
  - Learn how to work
    - with an external stakeholder
    - in a (student) project team
- Project objectives
  - Develop useful software
  - Perform a great demo on demo-day!

# Industry Partners and Teaching Projects



Audi  
Vorsprung durch Technik



BOSCH

Continental



methodpark

NEWSTORE



SOLYP

SENACOR

SIEMENS

sivantos  
the hearing company

software AG

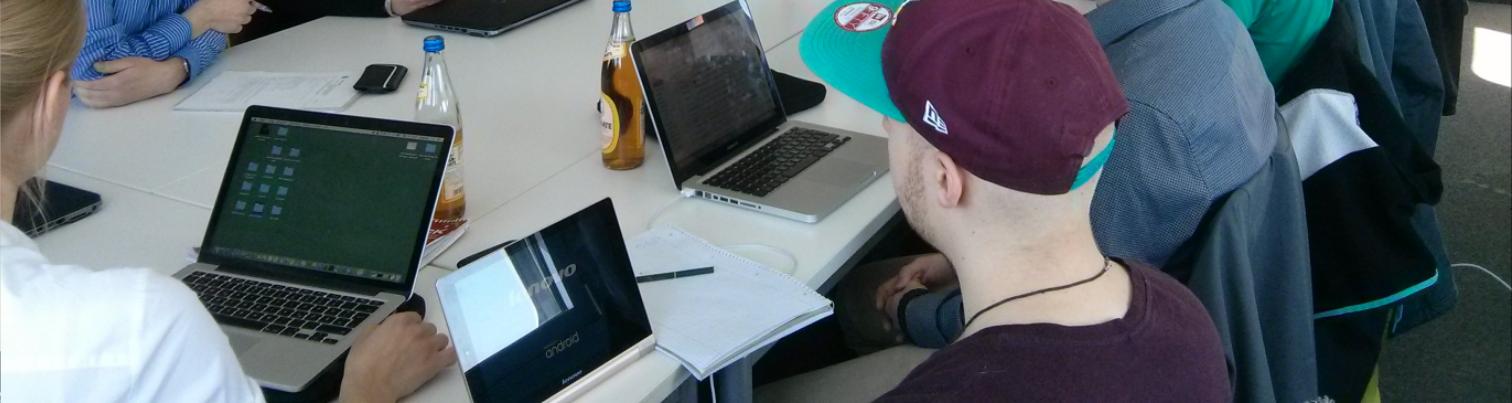
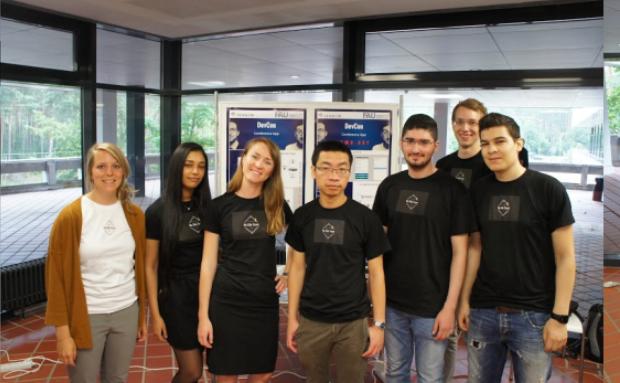


Volkswagen

The AMOS Project

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# Skills Required for Course

- General skills
  - Willingness and ability to work in a team
  - Ability to acquire skills during the project
- Role-specific skills
  - Product owner (PO) role
    - Strong conceptual thinking
    - Ability to communicate well
    - Affinity to technology
  - Software developer (SD) role
    - Technology stack (specific to project)
    - Development tools like git and GitHub
    - Test-driven development

# Course Grading [1] by Role

- **Product Owner**
  - Theory (lectures) = 20% of grade
    - 2 SWS in 5 ECTS = 20%
    - As measured by class quizzes
    - Grading scale is [0..10] points
  - Practice (project) = 80% of grade
    - Individual contribution to teamwork = 50%
      - As measured in team meetings
      - Grading scale is [0|1|2|3]
    - Independent work = 50%
      - As measured by artifacts provided
      - Grading scale is [0|1|2|3]
- **Software Developer**
  - Theory (lectures) = 10% of grade
    - 2 SWS in 10 ECTS = 10%
    - As measured by class quizzes
    - Grading scale is [0..10] points
  - Practice (project) = 90% of grade
    - Individual contribution to teamwork = 50%
      - As measured in team meetings
      - Grading scale is [0|1|2|3]
    - Independent work = 50%
      - As measured by artifacts provided
      - Grading scale is [0|1|2|3]
- **Combined by ECTS (credit point) proportions if both roles are played**

[1] Also see <http://oss.cs.fau.de/teaching/course-resources/grading-schemes-and-scales/>

# No Oral or Written Exam [1]



[1] You still have to register for the course

# Course Language [1]

- Class
  - Lecturer: English
  - Student: Choice of German or English
- Project and exercises
  - Team: Choice of German or English
  - Submissions: Choice of industry partner

# Course Organization

- Course organization
  - See <https://amos.uni1.de>
- Course schedule
  - See **Schedule** tab on **Course Organization** doc
- Course projects
  - See projects link on **Index** tab on **Course Organization** doc
- Student teams
  - See **Project Teams** tab on **Course Organization** doc
- (Online) room allocations
  - See **Project Teams** tab on **Course Organization** doc

# The AMOS Project License

- For source code, we use the MIT license
  - See <https://opensource.org/licenses/MIT>
- For other data, we use the CC BY 4.0 license
  - See <https://creativecommons.org/licenses/by/4.0/>

# Open Source Governance

- Do not add copyleft-licensed libraries to your project
  - May make later desired license change difficult, including proprietary use
  - Check with teaching team whether library is OK
- Rules of thumb on license choice
  - **OK: Permissive licenses (BSD, Apache)**
  - **May be OK: Weakly protective (a.k.a. “weak copyleft”)**
  - **Usually not OK: Strongly protective (a.k.a. “reciprocal” or “copyleft”)**
  - **Never OK: Non-software licenses, no license**
- Professionals (i.e. companies) use code scanners to check

# Work Rhythm

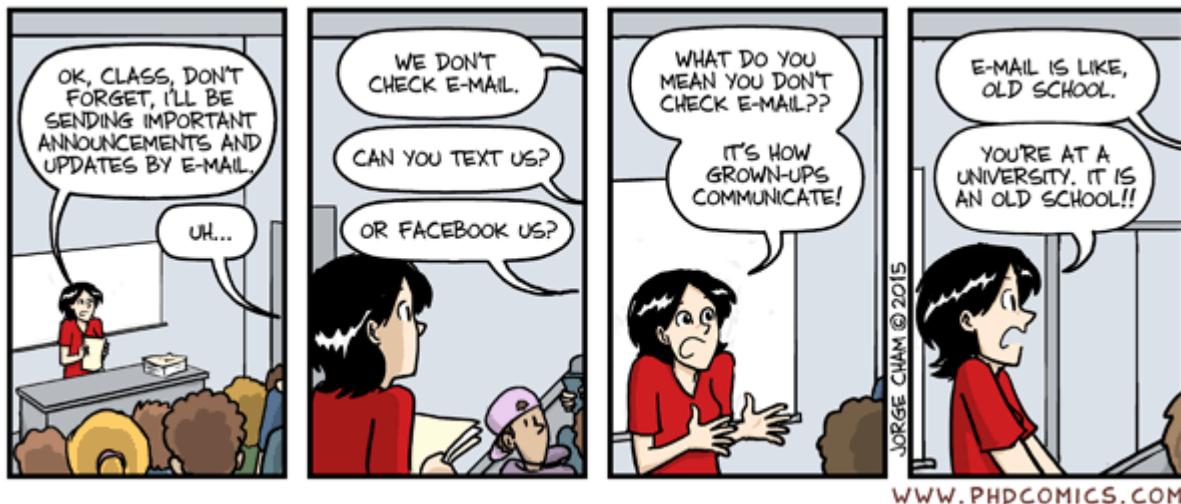
- Lectures
  - Class day (90min.)
- Team meetings
  - Next slot after lecture
- Project work (self-organized)
  - Deliverables due according to schedule

# Deliverables

- See <https://bit.ly/2HTvzLX> for
  - Types of deliverables
  - Time of day for delivering
  - Means of delivering

# Course Communication

- Announcements by email (through course management system)
- Questions and answers using course communication forum
- Use the **Teaching Team** email alias from **Course Organization** doc



# Thank you! Questions?

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