

# Course Introduction

**Prof. Dr. Dirk Riehle**

**Friedrich-Alexander University Erlangen-Nürnberg**

**AMOS A01**

Licensed under [CC BY 4.0 International](#)

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** CONTINENTAL AUTOMOTIVE



► **methodpark**

NEWSTORE



**SOLYP**

 **SENACOR**

**SIEMENS**

 **sivantos**  
the hearing company

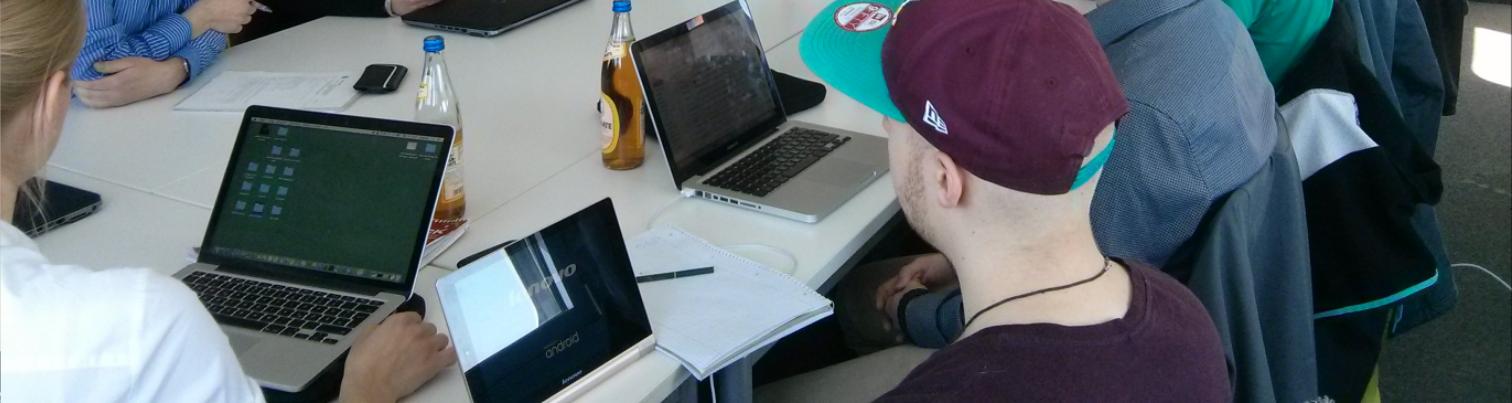
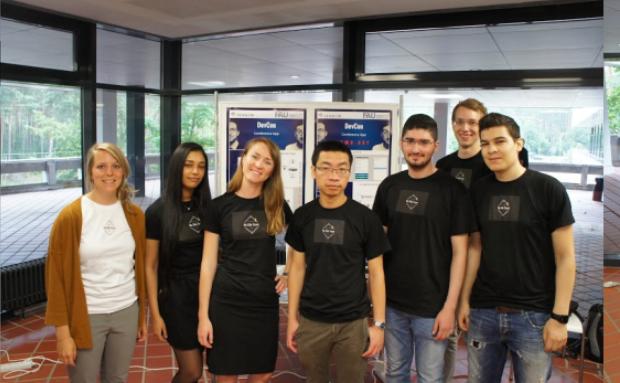
 **software AG**



**Volkswagen**

The AMOS Project  
© 2021 Dirk Riehle - Some Rights Reserved

...



# 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 (All Roles)

- 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%
  - Independent work (by role) = 50%
  - Grading scale is [0|1|2|3]
  - Percentage distribution by roles played

# 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

# Homework / Deliverables

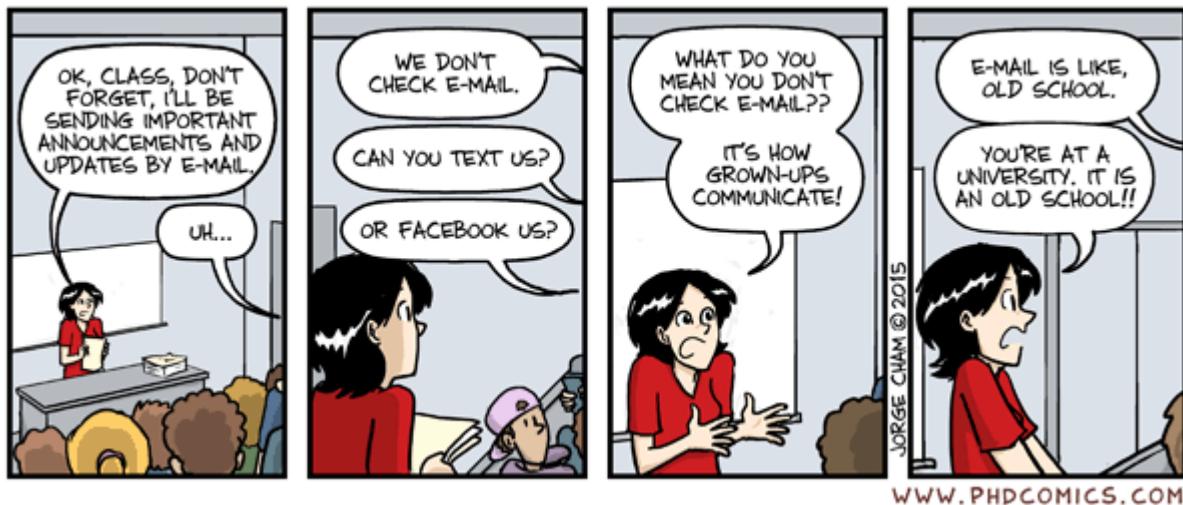
- See <https://bit.ly/2HTvzLX> for
  - Types of deliverables
  - Time of day for delivering
  - Means of delivering

# First Team Meeting

- Ensure access to and update the planning documents
  - Project data
  - Project team
  - Role assignments
- Ensure access to and update GitHub repository
  - README.MD
  - Templates
- Agree on team contract
- Design project / team logo

# 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?

[dirk.riehle@fau.de](mailto:dirk.riehle@fau.de) – <https://oss.cs.fau.de>

[dirk@riehle.org](mailto:dirk@riehle.org) – <https://dirkriehle.com> – [@dirkriehle](https://twitter.com/@dirkriehle)

# Legal Notices

- License
  - Licensed under the [CC BY 4.0 International license](#)
- Copyright
  - © 2010-2021 Dirk Riehle, some rights reserved