

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



methodpark

NEWSTORE



SOLYP

SENACOR

SIEMENS

sivantos
the hearing company

s software AG

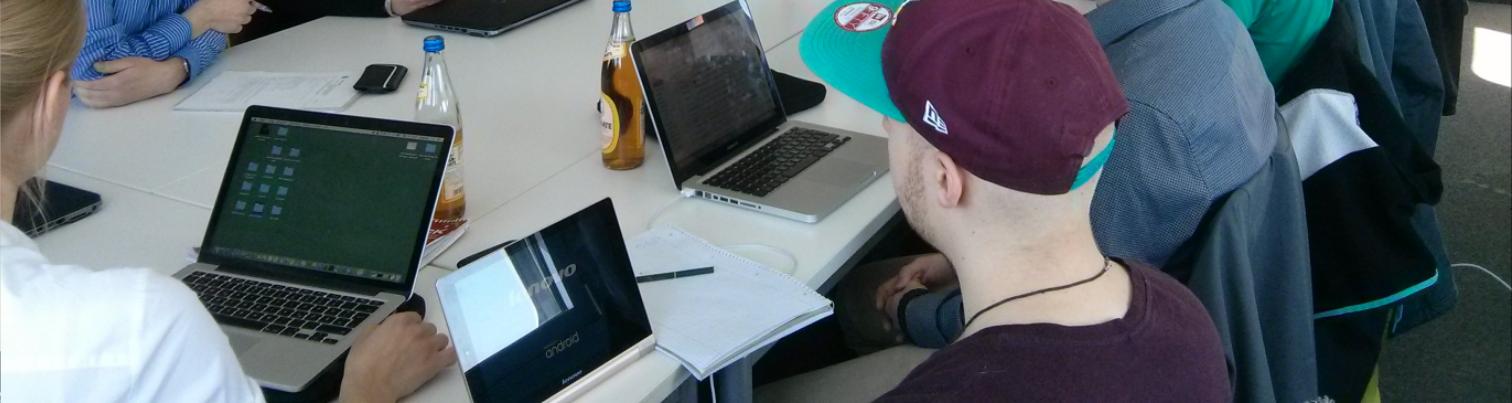
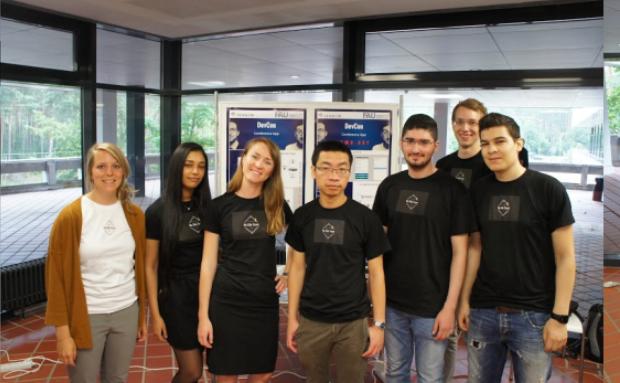


Volkswagen

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 [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?

dirk.riehle@fau.de – <https://oss.cs.fau.de>

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