

FAU SETS STUDENTS UP FOR SUCCESS WITH SCRUM IN ITS "MANAGING PROJECTS SUCCESSFULLY" CURRICULUM

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CASE STUDY



THE UNIVERSITY

The Friedrich Alexander University Erlangen-Nuremberg (FAU) is a University in Bavaria, Germany established in 1742 and has 70 departments distributed over 5 faculties. 40,000 Students are enrolled in 267 degree programs.



**Friedrich-Alexander-Universität
Erlangen-Nürnberg**

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The university decided they needed to incorporate Agile into its information systems, economics and social studies Bachelor's programs. The Information Systems department and the Information Systems Bachelor/Master programs are part of the "Economics and Social Sciences" curriculum. This course is open to all students.

"FAU added Agile to its curriculum because it has been extensively shown that classic project management has its shortcomings in certain areas of applications like software development. Scrum is so widely used in many industries that students 'have to know' them."
- Martin Enders, Master in Information Systems, Full-Time Research Associate at the Chair of IT-Management

The university decided to focus primarily on Scrum because of its popularity across industries, its lightweight framework, the availability of freely accessible materials such as the Scrum Guide and the Scrum.org website.

"In our discipline (Information Systems) the Scrum approach is also very useful for our research projects. The nature of Scrum is a very good choice to structure and carry out research projects because of its iterative approach and the rigorously defined parts (teams/workflows/artifacts)." - Martin Enders, Master in Information Systems, Full-Time Research Associate at the Chair of IT-Management

The course that was created is called "Managing Projects Successfully" and covers classic and Agile methods and frameworks. Scrum is the main focus of the Agile portion of the course. Other agile approaches such as Kanban or Extreme Programming are also briefly introduced. The goal of the Agile portion of the course is to make students aware of different agile methods and frameworks and to develop a deep understanding of Scrum so that they are able to apply Scrum in small projects. The knowledge of Scrum helps students in various aspects of their studies:

- Managing the process of writing their bachelor or master thesis
- Shaping collaboration with other students in the context of group assignments
- Managing research projects

"Many of the students have student jobs in companies where methods of classic or agile project management are applied. There, they can apply their knowledge of Scrum in practice" - Martin Enders, Master in Information Systems, Full-Time Research Associate at the Chair of IT-Management

This course can be taken by all students from the following Bachelor programs: Economics, International Business Studies, Business Information Systems, Industrial Engineering, Social Economics and Business Education.

The course Managing Projects Successfully consists of two parts. One module on classic project management based on PMI and a module on Scrum based on materials from Scrum.org and the Scrum Guide. Most students in this course are in their second year of Bachelor's studies.

The course consists of the following parts:

- **Lectures** to provide the foundation for the students.
- **Exercises** where the students apply their knowledge from the Lectures and their own studies in small projects

Within the exercises the students conduct their own projects. For example, Students create websites using Scrum.

Both parts can be passed by participating in the exams we conduct. The exam in the Scrum module can be replaced by the Professional Scrum Master I (PSM I) certification from Scrum.org. Since this course began, 260 Students have taken the PSM I exam and have passed demonstrating a fundamental level of Scrum. Additionally 30 students outside of this curriculum optionally took the course and passed the PSM I exam.

In this course, the instructor teaches the basics of Scrum and introduces the students to the Scrum.org resources and gives them some tips on how to prepare efficiently for the PSM-I exam. After that, the students prepare themselves independently or in self-organized groups for the exam by studying the below:

- Scrum Guide
- Scrum Master Learning Path
- Scrum.org Blog
- Scrum Glossary
- Scrum.org Open Assessments

Due to Covid-19 the course was transformed to an online course. In weekly interactive video sessions students are introduced to classic project management and agile project management (Scrum). In addition, practical exercises in small groups (breakout sessions) were conducted in the online sessions with the students.

The topics included in the course are below with multiple sessions for each of the following topics:

- Introduction to Scrum
- Introduction to classic project management
- How to choose the most appropriate project management approaches for projects.

- Stakeholder Management
- Conflict Management
- Communication in Projects
- Project Closure (Debriefing, lessons learned, Retrospectives)
- Resilience / Dealing with uncertain conditions
- Online planning poker in small groups with discussion about the experiences the students made.

"The vast majority of Students get quick job offers after they have received their degrees. Many students mentioned that additional certificates, such as the PSM-I are very helpful in the application process." - Annika Schreiner M.Sc., Full-Time Research Associate at the Chair of IT-Management

After passing the exam, some students proudly shared their PSM-I Certification on platforms like LinkedIn. They report a high level of attention on the part of their followers. Besides receiving credits for the PSM-I certificate as part of the course "Managing Projects Successfully" they received additional positive feedback on social media platforms.

Moreover, students appreciate the opportunity to take the exam at the date and time they choose (during the semester).

"Unlike in regular courses, where exams normally take place at the end of the semester, students are flexible in terms of preparing for the exam and studying at their own pace. Therefore, most of them passed the PSM I successfully at the first attempt." - Annika Schreiner M.Sc., Full-Time Research Associate at the Chair of IT-Management

What some of the students have said

"I have a student job in a company where no concrete project framework (neither traditional nor agile project management) is applied. Since this leads to confusion and prolongation of processes, I am glad that I can contribute with my acquired knowledge about Scrum to improve the situation."

"To pass the exam it is necessary to really get a deep understanding of Scrum. Thus, the certificate shows that you have thoughtfully dealt with the content, which makes it much more valuable."

"IT companies are happy to see evidence of Scrum knowledge. I think that the PSM-I Certificate can be a good feature for job starters compared to other applicants. Possibly this increases the chances of being invited for an interview."

"Scrum differs from the classic PM I learned in my education. The contents of Scrum.org gave me a new perspective on the topic. Besides (as a German student), I got deeper into business English since all contributions and guides were in English."

"I was impressed by the large Scrum community on Scrum.org. The various blog entries give an insight into the application of Scrum in real working life."

"Having additional qualifications such as the PSM-I certificate is an advantage over other applicants. In addition, I have the feeling that I can bring new knowledge and a new perspective to the department of the company where I am working as a working student."

About Scrum.org

Scrum.org, the Home of Scrum, was founded by Scrum co-creator Ken Schwaber as a mission-based organization to help people and teams solve complex problems. We do this by enabling people to apply Professional Scrum through hands-on training courses, globally recognized certifications and ongoing learning all based on a common competency model.

Scrum.org supports people wherever they are on their learning journey from beginner to highly experienced practitioner, helping them to grow over time with ongoing learning opportunities and resources. Community members share knowledge and gain new insights from each other leveraging forums, blogs and more.