

Interactive Learning

Info Meeting

4th of July 2023



Markus Paulsen



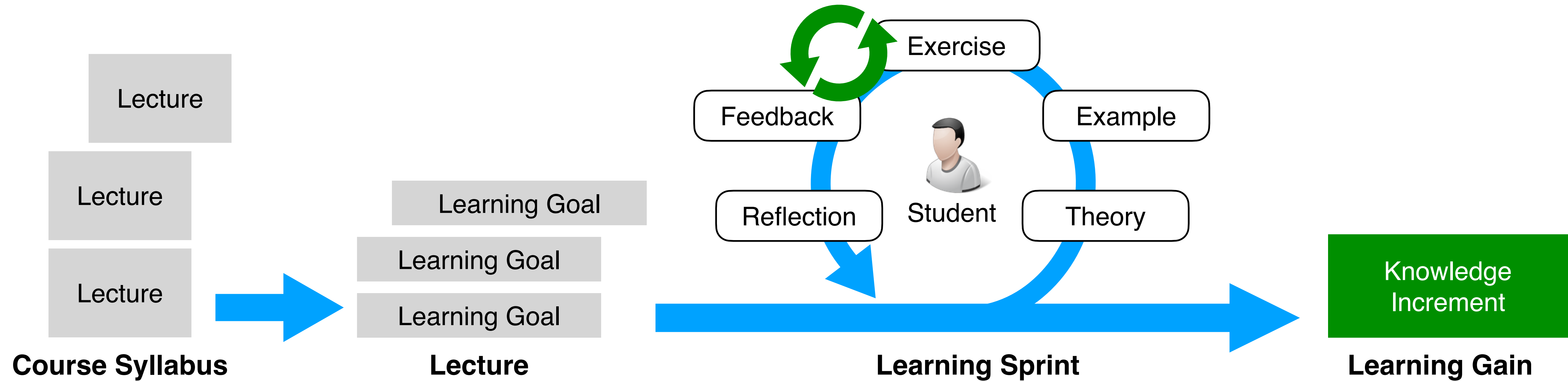
Patrick Bassner



Prof. Dr. Stephan Krusche

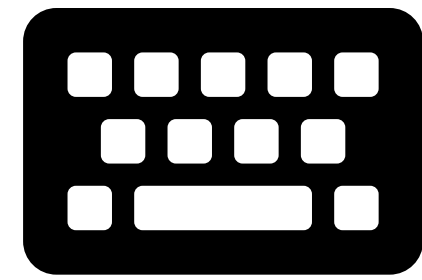
“Tell me and I will forget.
Show me and I will remember.
Involve me and I will understand.
Step back and I will act.”

Continuous Interactive Learning

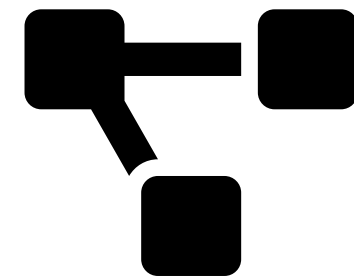


- Learn and exercise small chunks of content in short cycles
- Get guidance and immediate feedback to prevent misconception
- Reflect on the content and increase knowledge incrementally

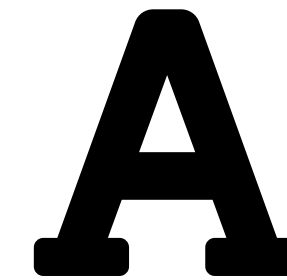
Artemis - interactive learning with automated feedback



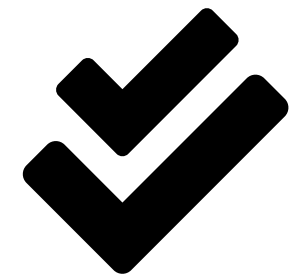
Programming exercises



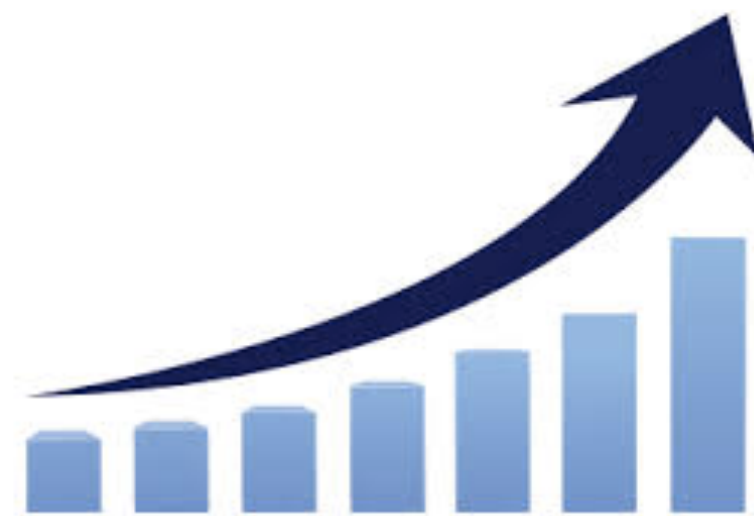
Modeling exercises



Text exercises



Quiz exercises



Scalability: handle > 200 submissions per second



Usability: beginners are able to use it



Instant feedback: provide feedback in real-time

Team exercises | Lectures | Presentations | Exam mode | Questions and answers | Learning analytics

Our mission

- Teach the concepts in an understandable way
- Provide realistic examples and exercises
- Focus on the practical application of knowledge
- Support the students in their problems and questions

Introduction to Programming (ITP)

- **Number of students:** 800 management students
- **Lecture:** Wednesday, 14:00 - 18:00 (Interims II)
- **Exercise concept:** In-class exercises, tutor exercises, bi-weekly graded homework, final project
- **Tutor responsibilities:**
 - Support the exercise instructors in the creation of programming exercises (onsite/online)
 - Hold a tutor group (3 hours) (onsite)
 - Help in the lecture conduction (onsite)
 - Answer students' questions (online via Artemis)
 - Attend the weekly tutor meeting (onsite)
 - Help in the conduction and the correction of the exam (onsite)

Participation

→ 1) **Contract:** ~ 900€ salary per month

- Up to 16 hours effort per week
- Exact amount of time decided on individual basis

2) **Praktikum:** 10 ECTS

- ~ 2 days effort per week
- Possible module numbers: IN0012, IN2106, IN2175, IN4234

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Additional Tasks in the **Praktikum** Interactive Learning



- Find and document bugs and new feature requests for Artemis
- Test newly developed features for Artemis
- **Voluntary:** Participate in the development of Artemis
 - Investigate the applied learning theories, e.g. interactive learning
 - Customize and extend learning tools to support the conduction of large courses
 - Present the results at the end of the course

Learning goals

- Become familiar with best practices for teaching and learning
- Improve your soft skills (communication, presentation, and team work)
- Apply incremental, agile, and adaptive development methods
- Deepen your knowledge in software engineering (especially requirements engineering and testing)

Prerequisites for the course - What we expect from you



- You passed EIST (or a similar course), PSE (or a similar course) or ITP
- You have a good knowledge in software engineering
- You are motivated
- You want to support the students in the best way
- You can explain important software engineering concepts in an understandable and easy manner
- You want to deepen your knowledge on programming and software engineering

Application

- 1) Fill out the application on wiki.tum.de/x/QYLzWg
(latest until 11th of July 18:00)
- 2) We will review your application and invite you for an interview
- 3) Choose an interview time slot (latest until 12th of July 18:00)
- 4) Come **prepared** to an interview (virtual)
- 5) We will inform you about your participation (latest until 15th of July 18:00)
- 6) **Only for Praktikum:**
Prioritize the Praktikum in the matching system (latest until 19th of July)

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