Software Design Course: Experts for Digitization

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May 1994: Foundation

October 1995: Start of lectures

October 2000: Independence

March 2019: Renaming to „Technische Hochschule“

current: more than 3.300 students
2 faculties
13 Bachelor’s programmes
6 Master’s programmes

Historical campus in Aschaffenburg
Central Question:
How do you build software "right"?
So that everything works smoothly you need strong teams and good planning!
What is Software Design in Aschaffenburg?

#studyInAB

Combining technological excellence and project management

Because strong teams build cool software!
Software Design course contents

All of these exciting issues are also reflected in the curriculum....
Software Design course contents

ALGORITHMS, MATHEMATICS
- e.g. mathematics, theoretical computer science

SOFTWARE ENGINEERING, PROJECT MANAGEMENT
- e.g. programming technology, QA and testing, software architecture, agile development methods

TECHNOLOGY
- e.g. IT hardware, databases, data science, mobile apps

INTERDISCIPLINARY, ELECTIVES
- e.g. english, business administration, different electives
Study plan in large, mark practical parts
Dual Cooperative Study - Models

**BACHELOR - ACADEMIC STUDIES & INTENSIVE IN-COMPANY TRAINING - (3.5 years)**

**IN-COMPANY TRAINING**
- 16 months plus Bachelor’s thesis – at least 50% more work experience than during regular studies
- Start of in-company training still possible after 1st, 2nd, 3rd semester

**ACADEMIC STUDIES**
- Start: 1 October

**BACHELOR - ACADEMIC STUDIES & APPRENTICESHIP - (4.5 years)**

**APPRENTICESHIP**
- 23.5 months, Start: 1 September
- Vocational Certificate

**IN-COMPANY TRAINING**
- 4 months plus Bachelor’s thesis

**ACADEMIC STUDIES**
- Start: 1 October of the succeeding year
- Bachelor’s Degree
Dual Cooperative Study at the Aschaffenburg UAS

– Academic studies with practical experience in companies and apprenticeship with vocational certificate possible

– Sound scientific content with concrete practical relevance

– Application of the latest scientific findings thanks to research and cooperation with various companies in the region
Dual Cooperative Study - Experience from the Students' Perspective

What's good about dual cooperative studies?

- Theory can be experienced directly in practice
- Students may support the company and directly apply what they have learned.
- Contact persons available for many topics in the company.
- Students can get in touch with other (also former) students in the company and get some tips.
- Financially flexible
- Excellent career opportunities
Dual Cooperative Study - Experience from the Students' Perspective

- What are the challenges?
  - Separation between working time and study time is not always clear.
  - When there are many projects during the semester, it can get quite a bit stressful in between.
  - You have to perform to a certain level (but not difficult due to the high practical relevance)
IFI - Initiative for Informatics

- Founded in 2018
- About 60 companies actively support software design and provide internships, in-company training, apprenticeships, ...
- Workshop with IFI and Aschaffenburg UAS
  - specialization: data science and digital transformation
  - internationalization
  - feedback to initial module plan
  - application orientation
  - dual cooperative studies

www.informatik-aschaffenburg.de
Software design means much practice.
Further opportunities for practical experience in the Software Design program

– Use Case 1: Start-Up Support
  – Gründerlab accompanies students from the idea to the founding of a company
  – Project events offer the opportunity to apply academic knowledge directly in the context of the start-up project.

– Use Case 2: Teaching/learning cooperation
  – Students can apply for and carry out real projects with companies from the region during lectures
  – E.g. design thinking project, project management explainer videos

– Use Case 3: Profile Check
  – Students gain insight into the requirements and profiles of future employers, e.g. in the context of applicant training and coaching.

– Use Case 4: Experience everyday work
  – Students have the opportunity to carry out internships, practical phase (mandatory) and bachelor thesis in companies.
Software Design - a study with numerous Possible applications

**QUALITY MANAGEMENT**
Quality assurance and process management, monitoring and assessment of IT systems

*Use Case 2, 4 (projects in the company)*
*Dual study*

**SOFTWARE DEVELOPMENT**
Software and software systems development

*Use Case 1, 2, 4 (projects in the company)*
*Dual study*

**PROJECT MANAGEMENT** System analysis or project management

*Use Case 1/2 (projects in the company, start-up)*
*Dual study*

**IT-LIFECYCLE**
Consulting and sales of IT systems, commissioning and service of IT systems

*Use Case 1, 2, 4 (projects in the company)*
*Dual study*
Software design

Ready to help shape the future?
Possibilities for international cooperation

- Exchange of students
- Exchange of staff
- Joint summer schools
- Joint student projects

Become a partner university
Questions?
Thank you for your attention!

2021
TBD