The objective of the module "Requirements Engineering and Management" is to convey the core concepts and technology of the requirements engineering and of the requirements management. In the second half of the semester these methods and techniques will be carried out practically to develop an exemplary requirements definition.

**Professional competence**
The students:

- integrate the process of requirements engineering in the software engineering process
- name the methods and tools of requirements engineering and management
- select methods and tools from requirements engineering and management to solve given problems appropriately
- illustrate the key tasks of the requirements engineering and management
- name the essential concepts to develop and to structure ideas
- differentiate the software development core activities in greater detail

**Methodological competence**
The students:

- apply the methods of determination, documentation, validation and confirmation of requirements and
- create a comprehensive requirement document in group work

**Social competence**
The students:

- communicate with all stakeholders dealing with software development
- design project visions in groups
- collect requirements in interviews
- design requirements for software systems collaboratively

**Self-competence**
The students:

- reflect their problem-solving behaviour by applying requirements engineering and management capabilities

**Module contents**
The module deals with requirements analysis core concepts as well as methods and techniques of requirements engineering and management. Topics of this module are:

- the necessity of requirements engineering and management
- the requirements engineering process in the software development process
- requirements engineering process (participants, documents, activities)
- understanding the application domains (vision development, system environment documentation, domain model development, use case identification)
- requirements collection (functional and non-functional requirements, requirements collection, requirements documentation, requirements validation, requirements needs)
- requirements management

Reader’s advisory


Links
Language of instruction: German
Duration (semesters): 1 Semester
Module frequency: jährlich
Module capacity: unlimited
Module level: MM (Mastermodul / Master module)
Modulart: je nach Studiengang Pflicht oder Wahlpflicht

Vorkenntnisse / Previous knowledge: Knowledge from Softwaretechnik und Softwaretechnik II

Examination
Final exam of module: At the end of the lecture period
Type of examination: Portfolio: report and short oral exam

Course type
Lecture: 2.00 SWS
Practical: 2.00 SWS

Frequency: WiSe
Workload attendance: 28 h

Total time of attendance for the module: 56 h