

Learning objectives:

Subject-specific competencies:

- learn, design and apply UML for software engineering
- understand the need for software engineering-based development
- learn and apply process models for software development
- create a software specification and derive s design
- prepare the system implementation process

Methodological competencies:

- understand and use UML models, use-cases and roles
- decide on software engineering process models
- create a software specification and derive a software design

Interdisciplinary competencies:

- apply software engineering methods and enable the execution of complex IT projects

Contents:

- Introduction into Unified Modeling Language (UML)
 - relevant language constructs
 - basic diagrams
 - advanced UML concepts
- Simple Engineering environments
- Software-Engineering key features
- Software process models
- Modelling of process activities
- Software design methods
- Requirements engineering
- Software system architectures
- Design styles, reference architectures
- Logical and technical system architectures