



## Programme: Architectural Engineering, 180 credits

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Combining architecture and engineering

Architectural Engineering aims to produce students that are well-positioned in the job market. Throughout the programme, the students gain extensive knowledge of construction engineering, architecture, design, planning and production. Architecture is about designing our built environment with regard to the needs of the user. As future engineers specialised in architecture, the students will be an important part of this process.

**In the fourth semester, as part of the Industrial Placement Course (IPC), the students undertake a placement in a company/public authority/organisation. Prior to the IPC, they have received instruction in:**

### Social planning

- Sustainability
- Legislation, actors, concepts
- Spatial planning
- Public spaces

### The building process

- Legislation
- Concepts
- Actors

### GIS

- Statistics
- Methods of analysis
- Software

### Mathematics

- Linear algebra
- Single-variable calculus
- Statistics

### Structural engineering

- Dimensioning of simple structural elements made of concrete, steel and wood

### The history of architecture

- The historical development of the built environment
- The history of 20<sup>th</sup>-century architecture
- The development of building technology

### Housing planning and design

- Layout, functional requirements
- Legislation, rules and regulations
- Architecture and design

### Building materials and technology

- Building physics
- Materials
- Technology

### Sketching and drawing techniques and BIM

- Interpret and produce drawings
- Building information modelling, BIM
- CityEngine, Revit
- Modelling and presentation
- Analysis and simulation

### Renovation

- Property development and renovation
- Methods for technical analysis of existing buildings
- Cultural heritage assessment
- Economic and ecological methods of analysis

### Leadership and project management

- Group dynamics
- Leadership
- Project management