



## Programme: 3D technology, 120 credits

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Developments are constantly taking place within the manufacturing industry. Both traditional subcontracting and the manufacture of complete products are experiencing ever increasing competition from low-cost countries. Businesses face great challenges, and the work involved in product development and design requires continuous streamlining. There is a growing need for designers with both theoretical knowledge and craftsmanship. The programme provides knowledge and skills within design, simulation, sustainable development, quality, production economics and group cooperation, meeting businesses' needs for competence within the field.

The programme provides knowledge about designing products and components in order to comply with a technical specification of requirements and demands in terms of functionality and sustainability. Throughout the programme, students' technical subject knowledge, craftsmanship and working abilities will all be practised and developed based on a results-driven working model. The programme is based on the latest technology within product development and production, and focuses primarily on the needs of small and medium-sized businesses.

**Before the IPC at the end of the first semester, students will have received teaching in the following subjects:**

### Design

- CAD and drawing skills
- Materials engineering
- Product development

### Production

- Manufacturing methods
- CAM
- Tolerances and measurements
- Product calculations

### Mathematics and calculation

- Mathematics for technical limitations
- Basic mechanics
- Basic solid mechanics
- Solid mechanics with FEM

### Communication

- Group Dynamics
- Presentation techniques
- Working in project form