

English Courses (SS 2026)

Energy Process Engineering/ Circular Economy

- Cryogenic Engineering
- Physical Foundations of Cryogenics
- Design of a Jet Engine Combustion Chamber
- Energy from Biomass
- Electromagnetic Energy in Process Engineering
- Power-to-X – Key Technology for the Energy Transition
- Laboratory Work in Combustion Technology
- Additive Manufacturing for Process Engineering
- Innovation Management for Products and Processes in the Chemical Industry
- Innovative Concepts for Formulation and Processing of Printable Materials

Development of processes for processing raw materials of biological origin

- Alternative Protein Technologies
- Batteries, Fuel Cells and Electrolysis
- Bioprocess Scale-Up
- Biosensors
- Electrocatalysis
- Extrusion Technology in Food Processing
- Microsystems in Bioprocess Engineering
- Single-Cell Technologies

Environmental Process Engineering / Water Technology

- Biofilm Systems
- Circular Economy Water, Energy, Environment: Research Proposal Preparation
- Environmental Biotechnology
- Fundamentals of Water Quality
- Industrial Wastewater Treatment
- Liquid Transportation Fuels
- Membrane Materials & Processes Research Masterclass
- Membrane Technologies in Water Treatment
- Practical Course in Water Technology
- Water Technology

Control Engineering and Digital Tools in Process Engineering

- Advanced Methods in Nonlinear Control
- Data-Based Modeling and Control
- Estimator and Observer Design
- Principles of Constrained Static Optimization
- Nonlinear Process Control
- Optimal and Model Predictive Control
- Introduction to Numerical Simulation of Reacting Flows
- Numerical Simulation of Reacting Multiphase Flows
- Numerical Methods in Fluidmechanics
- Computational Fluid Dynamics and Simulation Lab
- Digital Design in Process Engineering