

Computer Aided Process Engineering (M. Sc.)

Advanced process engineering applications (thermal process engineering II, mechanical process engineering II, experimental methods and measured data processing) and detailed fundamentals and knowledge in modelling processes (advanced mathematics, numerical methods, mathematical modelling I and balance equations, technical informatics).

The advanced stage focuses on mathematical modelling (fluid dynamic models, thermodynamic models, reaction models, mechanical models) and the applications in computer aided process engineering I & II (computational fluid dynamics, flow-chart programming, finite-element-methods). Students additionally choose 2 elective modules to specialise in the field of computer aided process engineering.

Most of the modules mentioned are supported by comprehensive laboratory tasks and the engineering principles are applied to real-life problems.

A project assignment (300 h) plus an application-oriented thesis (4 months with an additional oral examination) are drawn from research in the department or from research in industrial companies and are designed to develop skills and problem-solving abilities in computer aided process engineering.