Master of Science (M. Sc.)

Chemical Engineering

<table>
<tr><th>First semester</th><th>Second semester</th><th>Third semester</th><th>Fourth semester</th></tr>
<tr><td colspan="2">Chemical Engineering Seminar & Skills
(8 credits)</td><td rowspan="2">Lab Training in Chemical Engineering
(8 credits)</td><td rowspan="6">Master Thesis
(30 credits)</td></tr>
<tr><td rowspan="3">Energy Process Engineering
(8 credits)</td><td>Applications in Particle Technology
(4 credits)</td></tr>
<tr><td>Heterogeneous Catalysis in Chemical Process Engineering
(5 credits)</td><td rowspan="4">Elective Modules Semester 3</td></tr>
<tr><td>Computational Process Engineering
(5 credits)</td><td>German A1/2
(4 credits)</td></tr>
<tr><td>Advanced Thermal Separation Technology
(5 credits)</td><td rowspan="2">Elective Modules Semester 2</td></tr>
<tr><td>German A1/1
(4 credits)</td></tr>
<tr><td colspan="3">Free elective Modules
(6 credits)</td></tr>
</table>

Key:

Mandatory modules

Elective Modules

Free elecitve Modules

Elective Modules Semester 2: Process Chain Simulation (5 credits); Advanced Reaction Engineering (6 credits); Technology Assessment (5 credits); Sustainable Fuels (5 credits); Modeling of Interphase Phenomena (5 credits).

Elective Modules Semester 3: Optical Measurement Techniques for Process Engineering (5 credits); Modeling and Optimization of Chemical Reactors (5 credits); Conception of Process Equipment (5 credits); Resource's Process Engineering without Lab Course (6 credits); Selective Separation of Strategic Elements (5 credits); Process Analysis (6 credits); Recycling – Secondary Raw Materials (6 credits); Plant Design (4 credits); Chemical Processes (5 credits); Thermochemical Conversion and Chemical Recycling (5 credits); Environmental Engineering without Lab Course (6 credits).