

Course of Study Theoretical Mechanical Engineering (Study Cohort w21)

Sample course plan A Master Theoretical Mechanical Engineering (TMBMS)

| | | Semester 2 | | Semester 3 | | Semester 4 | |
|---|--|------------|--------|--|--------|--|----------------------|
| Form | Hrs/wk | Form | Hrs/wk | Form | Hrs/wk | Form | Hrs/wk |
| 1 | Finite Elements Methods | | | Numerical Treatment of Ordinary Differential Equations | | Research Project Theoretical Mechanical Engineering | Master Thesis |
| 2 | Finite Element Methods | VL | 2 | Numerical Treatment of Ordinary Differential Equations | VL | 2 | |
| 3 | Finite Element Methods | HÜ | 2 | Numerical Treatment of Ordinary Differential Equations | GÜ | 2 | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | Control Systems Theory and Design | | | Applied Dynamics: Numerical and experimental methods | | | |
| 8 | Control Systems Theory and Design | VL | 2 | Applied Dynamics | VL | 2 | |
| 9 | Control Systems Theory and Design | GÜ | 2 | Lab Applied Dynamics | PR | 3 | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | Modelling and Optimization in Dynamics | | | Computational Fluid Dynamics II | | Factory Planning & Production Logistics | |
| 14 | Flexible Multibody Systems | VL | 2 | Computational Fluid Dynamics II | VL | 2 | |
| 15 | Optimization of dynamical systems | VL | 2 | Computational Fluid Dynamics II | HÜ | 2 | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | Control Lab C | | | Linear and Nonlinear System Identification | | Fluidics | |
| 20 | Control Lab VII | PR | 1 | Linear and Nonlinear System Identification | VL | 2 | |
| 21 | Control Lab VIII | PR | 1 | | | Fluidics | |
| 22 | Control Lab IX | PR | 1 | | | Fluidics | |
| 23 | Methods of Integrated Product Development | | | Design optimization and probabilistic approaches in structural analysis | | | |
| 24 | Integrated Product Development II | VL | 3 | Design Optimization and Probabilistic Approaches in Structural Analysis | VL | 2 | |
| 25 | Integrated Product Development II | PBL | 2 | Design Optimization and Probabilistic Approaches in Structural Analysis | HÜ | 2 | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| Business & Management (from catalogue) - 6LP | | | | | | | |
| Non-technical Courses for Master (from catalogue) - 6LP | | | | | | | |

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

