CAD/CAM Specialization - Structure of the Study Program

Spring semester

| Course | Credits | Institute / Department |
|---|---------|---|
| Differential Equations | 3 | Institute of Mathematics, Department of Analysis |
| Theory of Elasticity | 3 | Institute of Mechanics |
| Materials Science | 3 | Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| Engineering Fluid Mechaqnics and Heat Transfer | 3 | Institute of Energy Engineering and Chemical Machinery, Department of Fluid and Heat Engineering |
| Environmental Management | 3 | Institute of Energy Engineering and Chemical Machinery, Department of Chemical Machinery |
| Project Management | 3 | Faculty of Economics |
| Machine Structures and Design | 3 | Institute of Machine and Product Design |
| Manufacturing Processes and Systems | 3 | Institute of Manufacturing Science |
| Measurement, Signal Processing and Electronics | 3 | Institute of Electrical and Electronic Engineering |
| Materials Handling Machines and Systems | 3 | Institute of Logistics |
| Methodical Design | 3 | Institute of Machine Tools and Mechatronics, Department of Machine Tools |
| Logistic Systems | 3 | Institute of Logistics |
| Computer Aided Process Planning | 3 | Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| Materials Selection | 3 | Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| Project B | 3 | Institute of Machine Tools and Mechatronics, Department of Machine Tools / Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| Degree Thesis B | 15 | Institute of Machine Tools and Mechatronics, Department of Machine Tools / Institute of Materials Sciences and Technology, Department of Mechanical Technology |

Autumn semester

| Course | Credits | Institute / Department |
|--|---------|---|
| Probability Theory | 3 | Institute of Mathematics, Department of Applied Mathematics |
| Modern Physics | 3 | Institute of Physics |
| Mechanical Vibrations | 3 | Institute of Mechanics |
| Industrial Quality Assurance | 4 | Institute of Manufacturing Science |
| Advanced Materials Processing | 3 | Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| Automated Machine Tools | 3 | Institute of Machine Tools and Mechatronics, Department of Machine Tools |
| Professional Practice | 2 | Institute of Machine Tools and Mechatronics, Department of Machine Tools |
| iCAD Systems 1 | 4 | Institute of Machine Tools and Mechatronics, Department of Machine Tools |
| Metal Forming | 4 | Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| iCAD Systems 2 | 4 | Institute of Machine Tools and Mechatronic,s Department of Machine Tools |
| NC Programming | 3 | Institute of Machine Tools and Mechatronics, Department of Machine Tools |
| Simulation of Manufacturing Devices | 3 | Institute of Machine Tools and Mechatronics, Department of Machine Tools |
| Design (as opt.) | 3 | Institute of Machine and Product Design |
| Mechatronical Modelling (as opt.) | 3 | Institute of Machine Tools and Mechatronics, Robert Bosch Department of Mechatronics |
| Project A | 3 | Institute of Machine Tools and Mechatronics, Department of Machine Tools / Institute of Materials Sciences and Technology, Department of Mechanical Technology |
| Degree Thesis A | 15 | Institute of Machine Tools and Mechatronics, Department of Machine Tools / Institute of Materials Sciences and Technology, Department of Mechanical Technology |