
Tutor:	Professor Konrad Wegener
Area of Interest:	Mechanics, Structure, Manufacturing Manufacturing Science
Language:	Englisch

Master in Production Technology

Prerequisites a student should comply with:

Fulfill admission conditions to MSc ETH in Mechanical Engineering.

Portrait of the student:

Interest in the application of knowledge, methods and theories in practical solving of engineering problems, experimental abilities.

What the students can expect:

Industry-oriented, practical education, training and acquisition of capabilities for problem-solving in an exciting field of action (machine tools, manufacturing).

Recommended Core Courses:

151-0721-00L Production Machines 2
151-0708-00L Manufacturing 2
151-0719-00L Quality of Machine Tools
151-0717-00L Assembly, Joining, and Coating
151-0731-00L Forming Technology I
151-0834-00L Forming Technology II
151-0733-00L Forming Technology III
151-0718-00L Metrology for Production - Metrology of Workpieces
151-0702-00L Betriebliche Simulation von Produktionsanlagen
151-0802-00L Automatisierungstechnik
151-0723-00L Produktion elektrischer und elektronischer Komponenten
151-0315-00L Methods and Tools for the Development of Structured Mechatronic Products
151-0306-00L Visualization, Simulation and Interaction - Virtual Reality 1
151-0317-00L Visualization, Simulation and Interaction - Virtual Reality 2
151-0727-00L Colloquium on Manufacturing Technology
151-0833-00L Principles of Nonlinear Finite-Element-Methods
151-0836-00L Virtual Process Control in Forming Manufacturing Systems
151-0840-00L Computational Methods in Stochastics and Optimization
151-0757-00L Umweltmanagement

Occupational outlook:

Employment wherever the production of goods is dealt with: head of a manufacturing site, of a shop floor, planning, construction and running of production equipment, development of new manufacturing processes, head of R&D of machine tool builder, head of other research - , development - and design - departments.

Research projects:

Model based control systems, new materials in the machine tool construction, calibration of machine tools, chipping of ultrahard and tough materials (titanium), ultrasonic assisted manufacturing processes, simulation of grinding, simulation of drilling, optimization of hard broaching, contact free dressing and truing of grinding wheels, development of submicron metrology for machine tools.