

Mechanical Engineering MSc with CAD/CAM specialization

	Subject name and Neptun Code	Institute of	1st sem. Fall	2nd sem. Spring	3rd sem. Fall	4th sem. Spring	cr.	
Natural Science 25-30 cr.	1. Probability Theory & Mathematical Statistics (GEMAK629-Ma)	Mathematics	2 + 2				5	exam
	2. Mechanical Vibrations (GEMET101-Ma)	Mechanics	2 + 2				5	exam
	3. Differential Equations (GEMAN500-Ma)	Mathematics		2 + 2			5	term mark
	4. Materials Science (GEMTT001-Ma)	Materials Science and Technology		2 + 2			5	exam
	5. Engineering fluid mechanics and heat transfer (GEAHT001-Ma)	Energy Engineering and Chemical Machinery		2 + 2			5	exam
Economics and Social Science 10-20 cr.	1. Environmental Management (GEVGT301-Ma)	Energy Engineering and Chemical Machinery	2 + 1				5	term mark
	2. Project Management (GTVSM7003M) or Innovation Management for Engineers (MAKMKM530N)	Fac. of Economics or Fac. of Mat. Sci. & Eng.			2 + 1		5	term mark
Professional Subjects 10-30 cr.	1. Advanced Materials Processing (GEMTT002-Ma)	Materials Science and Technology	2 + 2				5	term mark
	2. Automated Machine Tools (GESGT001-Ma)	Machine Tools and Mechatronics	2 + 2				5	exam
	3. Machine Structures and Design (GEGET501-Ma)	Machine and Product Design		2 + 2			5	exam
	4. Manufacturing Processes and Systems (GEGTT800-Ma)	Production Engineering		2 + 2			5	exam
	5. Measurement, Signal Processing and Electronics (GEVEE201-Ma)	Physics and Electronic Engineering				2 + 2	5	term mark
CAD/CAM Specialization 10-30 cr.	1. iCAD Systems 1 (GESGT002-Ma)	Machine Tools and Mechatronics	2 + 2				5	exam
	2. iCAD Systems 2 (GEMTT071-Ma)	Materials Science and Technology		2 + 2			5	exam
	3. Methodical Design (GESGT003-Ma)	Machine Tools and Mechatronics			2 + 2		5	term mark
	4. Computer Aided Process Planning (GEMTT114-Ma)	Materials Science and Technology				2 + 2	4	term mark
	5. NC programming (GESGT004-Ma)	Machine Tools and Mechatronics				2 + 2	5	exam
Summer Internship*	Summer Internship (GESGT007-Ma or GEMTT150-Ma)	Machine Tools and Mechatronics or Materials Science and Technology			*		0	term mark
Thesis work 30 cr.	Thesis work I (GESGT008-Ma or GEMTT145-Ma)	Machine Tools and Mechatronics or Materials Science and Technology			0 + 10		15	term mark
	Thesis work II (GESGT009-Ma or GEMTT146-Ma)	Machine Tools and Mechatronics or Materials Science and Technology				0 + 10	15	
optional 1	e.g. Numerical and Physical Simulation of Welding (GEMTT075-Ma)	Materials Science and Technology				2 + 0	1	term mark
optional 2	Hydraulic Units and Systems (GESGT005-Ma) OR Simulation of Manufacturing Devices (GESGT006-Ma) OR Materials Selection (GEMTT074-Ma)	Machine Tools and Mechatronics or Materials Science and Technology			2 + 2		5	term mark
cr/sem.			30	30	30	30	120	

*Obligatory: minimum of 4 weeks, preferably after the 2nd semester