

PROFILE SUBJECTS								
Research & Development (R&D)			Design & Construction (D&C)			Organization & Management (O&M)		
Profile subjects	EC	Quartile	Profile subjects	EC	Quartile	Profile subjects	EC	Quartile
Fluid Mechanics II	5	1	Design Principles for Precision Mechanisms 2	5	3+4	Cost Management & Engineering	5	2
Linear Solid Mechanics	5	3	Design, Production and Materials	5	2+3	Design of Production & Inventory Systems	5	3
Numerical Methods in Mechanical Engineering	5	1+2	Integrative Design of Biomedical Products	5	1	Maintenance Engineering & Management	5	1
Solids & Surfaces	5	1+2	Numerical Methods in Mechanical Engineering	5	1+2	Manufacturing Facility Design	5	2
System Identification and Parameter Estimation	5	3+4	Process Equipment Design	5	3	Safety by Design for Prod., Equipment and Syst.	5	2
Transport Phenomena	5	1	Modelling of Technical Design Processes	5	1			

SPECIALIZATION SUBJECTS								
Biomechanical Engineering (BE)			Design, Production & Management (DPM)					
Core subjects	EC	Quartile	Design Engineering (DE)			Production Management (PM)		
			Core subjects	EC	Quartile	Core subjects	EC	Quartile
Biomechanics	5	2	Life-Cycle Strategy	5	1+2	Discrete Optimization of Business Processes	5	1+2
Dynamics & Control	5	1+2	Manufacturing Facility Design	5	2	Lean Six Sigma Green Belt	5	4
Human Movement Control	5	3	Systems Engineering	5	1	Manufacturing Facility Design	5	2
			TRIZ - Fundamentals	3	Summer	Simulation	5	1+2
			Virtual Reality	5	4	Stochastic Models in Operations Management	5	3
						Warehousing	5	4
Elective subjects	EC	Quartile	Elective subjects	EC	Quartile	Elective subjects	EC	Quartile
Biomechanical Engineering - Capita Selecta	5	-	3D Printing; Processes And Use	5	1	Network of Queues	5	4
Biomechatronics	5	4	CAD/CAM - Capita Selecta	5	-	Production Management - Capita Selecta	5	-
Identification of Human Motor Control ³	5	4	Computational Structural Optimization	5	2	Sources of Innovation	5	1
Robotics for Medical Applications	5	2	Dynamics of Machines	5	3	Stochastic Models in Production and Logistics	5	4
<i>Courses of other specialisations and profiles</i>	-	-	Intellectual Property in Product Development	5	3	Supply Chain & Transportation Management	5	3
			Lean Six Sigma Green Belt	5	4	<i>Courses of other specialisations and profiles</i>	-	-
			Programming in Engineering	3	Summ+1			
			Sources of Innovation	5	1			
			TRIZ - Assignments	2	-			
			<i>Courses of other specialisations and profiles</i>	-	-			

Maintenance Engineering & Operations (MEO)			Mechanics of Solids, Surfaces and Systems (MS3)			Thermal & Fluid Engineering (TFE)		
Core subjects	EC	Quartile	Core subjects	EC	Quartile	Core subjects	EC	Quartile
Failure Mechanisms & Life Prediction	5	2	Computational Structural Optimization	5	2	Advanced Thermodynamics	5	2
Maintenance Eng. & Design-for-Main. - C.S.	5	-	Dynamics & Control	5	1+2	Computational Fluid Dynamics	5	4
Maintenance Engineering & Management	5	1	Experimental Methods	5	3+4	Energy Conversion Technology	5	1
Reliability Engineering & Maintenance Managm.	5	3	Nonlinear Solid Mechanics	5	4	Fluid Mechanics of Turbo Machines 1	5	2
Structural Health and Condition Monitoring	5	4	Plastic and Elastomer Engineering	5	1+2	Multi-Phase Flows	5	4
Elective subjects	EC	Quartile	Elective subjects	EC	Quartile	Elective subjects	EC	Quartile
Design for Maintenance Operations	5	3	Applied Mechanics - Capita Selecta	5	-	Advanced Programming in Engineering	5	2+3
Infrastructure Management	7,5	4	Composites	5	2+3	Biophysical Fluid Dynamics: The Respiratory Syst.	5	1
Reverse Logistics & Re-manufacturing	5	2	Composites Forming	5	4	Energy from Biomass	4	2
<i>Courses of other specialisations and profiles</i>	-	-	Digital Control Engineering	5	1	Energy Conversion Technology	5	1
			Dynamics of Machines	5	3	Engineering Fluid Dynamics - Capita Selecta	5	-
			Elastomer Science & Engineering	5	3+4	Experimental Techniques in Physics of Fluids	5	3
			Engineering Acoustics	5	1	Fluids and Elasticity	2,5	4
			Image Processing and Computer Vision	5	3	Fluid Mechanics for Turbomachines 2	3,6	4
			Laser Materials Processing	5	2	Gasdynamics	5	3
			Mechanical Automation - Capita Selecta	5	-	Micro-Macro Methods - Capita Selecta	5	-
			Motion and Vibration Control	5	4	Multi Scale Mechanics – Capita Selecta	5	-
			Moulding Technology	5	3+4	Multigrid/Multilevel Scientific Computing	5	-
			Optimal Estimation in Dynamic Systems	5	4	Numerical Techniques for PDE	5	2
			Production Technology - Capita Selecta	5	-	Programming in Engineering	3	Summ+1
			Rheology & Processing of Thermoplastics	5	3+4	Theory of ODE	5	3
			Signal Processing for Acoustics and Vibrations	5	2	Theory of Partial Differential Equations	5	2
			Surface Technology	5	3	Thermal Engineering - Capita Selecta	5	-
			Surface Technology and Tribology - Capita Selecta	5	-	Thermodynamics and Flowsheeting	5	2
			Theory of ODE	5	2	Turbulent Combustion	5	3+4
			Tribology	5	3+4	Turbulence	5	2
			<i>Courses of other specialisations and profiles</i>	-	-	Wave Motion	5	2
						Wind Energy	4	4
						<i>Courses of other specialisations and profiles</i>	-	-

¹the quartiles in which these courses are offered are subject to change, in July or August the final decision will be made

²one course

³not in combination with System Identification and Parameter Estimation