

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	1A	Design Principles for Precision Mechanisms 2	5	2A/2B	Cost Management & Engineering	5	1B
Linear Solid Mechanics	5	2A	Design, Production and Materials	5	1B/2A	Design of Production & Inventory Systems	5	2A
Numerical Methods in Mechanical Engineering	5	1A/1B	Integrative Design of Biomedical Products	5	1A	Maintenance Engineering & Management	5	1A
Solids & Surfaces	5	1A/1B	Numerical Methods in Mechanical Engineering	5	1A/1B	Manufacturing Facility Design	5	1B
System Identification and Parameter Estimation	5	2A/2B	Process Equipment Design	5	2A	Safety by Design for Prod., Equipment and Syst.	5	1B
Transport Phenomena	5	1A	Modelling of Technical Design Processes	5	1A	Engineering Project Management	5	2B
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	1B	Life-Cycle Strategy	5	1A/1B	Discrete Optimization of Business Processes	5	1A/1B
Dynamics & Control	5	1A/1B	Manufacturing Facility Design	5	1B	Lean Six Sigma Green Belt	5	2B
Human Movement Control	5	2A	Systems Engineering	5	1A	Manufacturing Facility Design	5	1A
			TRIZ - Fundamentals	3	Summer	Simulation	5	1A/1B
			Virtual Reality	5	2B	Stochastic Models in Operations Management	5	2A
						Warehousing	5	2B
Elective subjects	EC	Quartile	Elective subjects	EC	Quartile	Elective subjects	EC	Quartile
Biomechanical Engineering - Capita Selecta	5	-	3D Printing; Processes And Use	5	1A	Network of Queues	5	2B
Biomechatronics	5	2B	CAD/CAM - Capita Selecta	5	-	Production Management - Capita Selecta	5	-
Identification of Human Motor Control <sup>3</sup>	5	2B	Computational Structural Optimization	5	1B	Sources of Innovation	5	1A
Robotics for Medical Applications	5	1B	Dynamics of Machines	5	2A	Stochastic Models in Production and Logistics	5	2B
<i>Courses of other specialisations and profiles</i>	-	-	Intellectual Property in Product Development	5	2A	Supply Chain & Transportation Management	5	2A
			Lean Six Sigma Green Belt	5	2B	<i>Courses of other specialisations and profiles</i>	-	-
			Programming in Engineering	3	Summ+1			
			Sources of Innovation	5	1A			
			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	1B	Computational Structural Optimization	5	1B	Advanced Thermodynamics	5	1B
Maintenance Engineering & Management	5	1A	Dynamics & Control	5	1A/1B	Computational Fluid Dynamics	5	2B
Reliability Engineering & Maintenance Managm.	5	2A	Experimental Methods	5	2A/2B	Energy Conversion Technology	5	1A
Structural Health and Condition Monitoring	5	2B	Nonlinear Solid Mechanics	5	2B	Fluid Mechanics of Turbo Machines 1	5	1B
			Plastic and Elastomer Engineering	5	1A/1B	Multi-Phase Flows	5	2B
Elective subjects	EC	Quartile	Elective subjects	EC	Quartile	Elective subjects	EC	Quartile
Design for Maintenance Operations	5	2A	Applied Mechanics - Capita Selecta	5	-	Advanced Programming in Engineering	5	1B/2A
Infrastructure Management	7,5	2B	Composites	5	1B/2A	Biophysical Fluid Dynamics: The Respiratory Syst.	5	1A
Reverse Logistics & Re-manufacturing	5	1B	Composites Forming	5	2B	Energy from Biomass	4	1B
Maintenance Eng. & Design-for-Main. - C.S.	5	-	Digital Control Engineering	5	1A	Energy Conversion Technology	5	1A
<i>Courses of other specialisations and profiles</i>	-	-	Dynamics of Machines	5	2A	Engineering Fluid Dynamics - Capita Selecta	5	-
			Elastomer Science & Engineering	5	2A/2B	Experimental Techniques in Physics of Fluids	5	2A
			Engineering Acoustics	5	1A	Fluids and Elasticity	2,5	2B
			Image Processing and Computer Vision	5	2A	Fluid Mechanics for Turbomachines 2	3,6	2B
			Laser Materials Processing	5	1B	Gasdynamics	5	2A
			Mechanical Automation - Capita Selecta	5	-	Micro-Macro Methods - Capita Selecta	5	-
			Motion and Vibration Control	5	2A	Multi Scale Mechanics – Capita Selecta	5	-
			Moulding Technology	5	2A/2B	Multigrid/Multilevel Scientific Computing	5	-
			Optimal Estimation in Dynamic Systems	5	2B	Numerical Techniques for PDE	5	1B
			Production Technology - Capita Selecta	5	-	Programming in Engineering	3	Summ+1
			Rheology & Processing of Thermoplastics	5	2A/2B	Theory of ODE	5	2A
			Signal Processing for Acoustics and Vibrations	5	1B	Theory of Partial Differential Equations	5	1B
			Surface Technology	5	2A	Thermal Engineering - Capita Selecta	5	-
			Surface Technology and Tribology - Capita Selecta	5	-	Thermodynamics and Flowsheeting	5	1B
			Theory of ODE	5	2A	Turbulent Combustion	5	2A/2B
			Tribology	5	2A/2B	Turbulence	5	1B
			<i>Courses of other specialisations and profiles</i>	-	-	Wave Motion	5	1B
						Wind Energy	4	2B
						<i>Courses of other specialisations and profiles</i>	-	-

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

<sup>2</sup>one course

<sup>3</sup>not in combination with System Identification and Parameter Estimation