

MASTER MECHANICAL ENGINEERING ACADEMIC YEAR 2018-2019

Courses written in italic still refer to the current academic year

PROFILE COURSES

Research & Development (R&D)			Design & Construction (D&C)			Organisation & Management (O&M)		
Profile subjects	EC	Quarter	Profile subjects	EC	Quarter	Profile subjects	EC	Quarter
201500136 Fluid Mechanics II	5	1A	191131360 Design Principles for Precision Mechanisms 2	5	2A/2B	201400244 Cost Management & Engineering	5	1B
201400037 Linear Solid Mechanics	5	2A	191121720 Design, Production and Materials	5	1B/2A	191124720 Design of Production & Inventory Systems	5	2A
191157710 Numerical Methods in Mechanical Engineering	5	1A	191150700 Integrative Design of Biomedical Products	5	1A	<i>201700294 Engineering Project Management</i>	5	2B
191155700 Solids & Surfaces	5	1A/1B	201600018 Modelling of Technical Design Processes	5	1A	201200146 Maintenance Engineering & Management	5	1A
191131700 System Identification and Parameter Estimation	5	2A	191157710 Numerical Methods in Mechanical Engineering	5	1A	191102041 Manufacturing Facility Design	5	1B
191141700 Transport Phenomena	5	1A	201300155 Process Equipment Design	5	2A	201700042 Safety by Design for Prod., Equipment and Syst.	5	1B

Specialization coordinators

- BE** Prof.Dr.Ir. H. van der Kooij
- DE** Ir. M.E. Toxopeus
- PM** Dr.ir. S. Hoekstra
- MEO** Dr. A. Martinetti MSc
- MS3** Prof.dr.ir. A. de Boer
- TFE** Prof.dr.ir. C.H. Venner

SPECIALIZATION COURSES

Biomechanical Engineering & Robotics (BE)			Design, Production & Management (DPM)					
Core subjects	EC	Quarter	Design Engineering (DE)			Production Management (PM)		
			Core subjects	EC	Quarter	Core subjects	EC	Quarter
201800156 Biomechanics	5	2A	191102010 Life-Cycle Strategy	5	2B	191127520 Lean Six Sigma Green Belt	5	2B
201400040 Dynamics & Control	5	1B	191102041 Manufacturing Facility Design	5	1B	191102041 Manufacturing Facility Design	5	1B
191150480 Human Movement Control	5	2A	191211080 Systems Engineering	5	1A	201800003 Operations Research Techniques 1	5	1A or 2A
			<i>191100010 TRIZ - Fundamentals</i>	3	Summer	191158510 Programming in Engineering	3	Sum/1A
			<i>201000201 Virtual Reality</i>	5	2B	191820210 Simulation	5	1A
						<i>191530881 Stochastic Models in Operations Management</i>	5	2A
Elective subjects	EC	Quarter	Elective subjects	EC	Quarter	Elective subjects	EC	Quarter
191150460 Biomechanical Engineering - Capita Selecta	5	-	201400103 3D Printing; Processes And Use	5	1A	191127500 Production Management - Capita Selecta	5	-
201200133 Biomechatronics	5	2B	191124430 CAD/CAM - Capita Selecta	5	-	201800008 After-Sales Service Logistics	5	1B
201700071 Identification of Human Physiological Systems	5	2B	191157730 Computational Structural Optimization	5	1B	192850840 Sources of Innovation	5	1A
201300004 Robotics for Medical Applications	5	1B	191131730 Dynamics of Machines	5	2A	191531830 Stochastic Models in Production and Logistics	5	2B
			<i>201700294 Engineering Project Management</i>	5	2B	<i>191820120 Warehousing</i>	5	2B
			192850960 Intellectual Property in Product Development	5	2A			
			191127520 Lean Six Sigma Green Belt	5	2B			
			191158510 Programming in Engineering	3	Sum/1A			
			192850840 Sources of Innovation	5	1A			
			<i>191100020 TRIZ - Assignments</i>	2	-			

Internship

- 191199152 (15EC) -> DPM
- 191199154 (20EC) -> other

Graduation

- 191199197 (45EC) -> DPM
- 191199198 (40EC) -> other

Maintenance Engineering & Operations (MEO)			Mechanics of Solids, Surfaces and Systems (MS3)			Thermal & Fluid Engineering (TFE)		
Core subjects	EC	Quarter	Core subjects	EC	Quarter	Core subjects	EC	Quarter
201300038 Failure Mechanisms & Life Prediction	5	1B	191157730 Computational Structural Optimization	5	1B	201500024 Advanced Thermodynamics	5	1B
201200146 Maintenance Engineering & Management	5	1A	201400040 Dynamics & Control	5	1B	191154731 Computational Fluid Dynamics	5	2B
<i>191852630 Reliability Engineering & Maintenance Managm.</i>	5	2A	201400046 Experimental Methods	5	2A/2B	201600019 Energy Conversion Technology	5	1A
201300039 Structural Health and Condition Monitoring	5	2B	201400042 Nonlinear Solid Mechanics	5	2B	191154720 Fluid Mechanics of Turbo Machines 1	5	1B
			201400044 Plastic and Elastomer Engineering	5	1A/1B	201400300 Multi-Phase Flows	5	2B
Elective subjects	EC	Quarter	Elective subjects	EC	Quarter	Elective subjects	EC	Quarter
<i>201500235 Design for Maintenance Operations</i>	5	2A	191157240 Applied Mechanics - Capita Selecta	5	-	<i>201800371 Aero-acoustics</i>	5	2A
201800034 Infrastructure and Asset Management	5	2B	191121710 Composites	5	1B/2A	191158500 Advanced Programming in Engineering	5	1B/2A
201800008 After-Sales Service Logistics	5	1B	<i>191121700 Composites Forming</i>	5	2B	201800102 Basics for Process Simulation	5	1A
201200145 Maintenance Eng. & Design-for-Main. - C.S.	5	-	191210770 Digital Control Engineering	5	1A	191154740 Biophysical Fluid Dynamics: The Respiratory Syst	5	1A
			191131730 Dynamics of Machines	5	2A	201700023 Energy from Biomass	5	1B
			201500344 Elastomer Science & Engineering	5	2A/2B	201600252 Energy Storage	5	2A
			191157750 Engineering Acoustics	5	1A	<i>201700029 Energy, Sustainability and Society</i>	5	2A
			191210910 Image Processing and Computer Vision	5	2A	191157750 Engineering Acoustics	5	1A
			191137400 Laser Materials Processing	5	1B	193580020 Experimental Techniques in Physics of Fluids	3	2A
			191131410 Mechanical Automation - Capita Selecta	5	-	191154760 Fluid Mechanics of Turbomachines II	4	2B
			201200215 Motion and Vibration Control	5	2A	201400195 Fluids and Elasticity	2,5	2B
			201400048 Moulding Technology	5	2A/2B	191154340 Gasdynamics	5	2A
			191210920 Optimal Estimation in Dynamic Systems	5	2B	191102010 Life-cycle Strategy	5	2B
			<i>191121730 Production Technology - Capita Selecta</i>	5	-	201600241 Multigrid/Multilevel Scientific Computing	5	-
			191121740 Rheology & Processing of Thermoplastics	5	2A/2B	191551150 Numerical Techniques for PDE	5	1B
			201400050 Signal Processing for Acoustics and Vibrations	5	1B	201300155 Process Equipment Design	5	2A
			191155710 Surface Technology	5	2A	191158510 Programming in Engineering	3+2	Sum/1A
			191155720 Surface Technology and Tribology - C.S.	5	-	201700025 Solar Energy	5	2A
			201600101 Theory of ODE	5	2A	201600101 Theory of ODE	5	2A
			191155730 Tribology	5	2A/2B	201700034 Introduction to Partial Differential Equations	5	2A
						193735010 Thermodynamics and Flowsheeting	5	1B
						201700218 Turbulent Combustion	5	2A
						201700024 Wind Energy	5	2B

¹ not in combination with System Identification and Parameter Estimation

When 2 quartiles are mentioned, it means that the course continues in the next quartile. Each courses is offered once a year

For courses of other specializations and profiles go to the course catalog

[go](#)