

MSc Industrial Engineering and Management Programme 2022-2023										
MSc IEM Structure		EC		Specialisations			Orientations			
Mandatory IEM		45		PLM	Production and Logistics Management			Service Logistics and Maintenance Management		
Mandatory per Specialisation		15						Supply Chain and Transportation Management		
Mandatory per Orientation		15						Manufacturing Logistics		
(Recommended) Electives		45						Operations Management in Healthcare		
Total EC's		120		HCTM	Health Care Technology and Management			Health Care Technology and Management		
QRT	Quartile			FEM	Financial Engineering and Management			Financial Engineering and Management		
All courses are 5 EC (except the Master Thesis). Course content can be found in the Course Catalogue, see: Course Catalogue										
Programme IEM / Specialisations	Qrt	PLM (EC)			HCTM (EC)			FEM (EC)		
201700020 IEM research orientation	1+3	5			5			5		
202300200 Data Science	1+2+3	5			5			5		
202001464 Thesis Preparation	--	5			5			5		
194100060 Thesis	--	30			30			30		
201800003 Operations Research Techniques 1	1+3	5			5					
202300332 Stochastic Optimization and Learning	4	5			5					
202300064 Simulation	1	5			5					
191506103 Statistics & Probability	1							5		
191860651 Micro Economics	1							5		
201300060 Mathematical Finance	2							5		
Mandatory per Orientation: ≥ three courses		15			15			15		
Electives		45			45			45		
Total		120			120			120		

Important notifications

Statistics & Probability (191506103) may be mandatory for international students in case of a deficiency. Consult the specialisation coordinator to check what applies to your situation.

Stochastic Models for Operations Management (191530881) is:

- **not allowed** for students with an UT IEM-BSc background;
- **mandatory** for PLM and HCTM students who did a pre-master;
- **possibly mandatory** for international students in case of a deficiency. Consult the specialisation coordinator to check what applies to your situation.

IEM Orientations																	
Course Code	Service Logistics and Maintenance Management	Q	Course code	Supply Chain and Transportation Management	Q	Course code	Manufacturing Logistics	Q	Course code	Operations Management in Healthcare	Q	Course Code	Health Care Technology and Management	Q	Course Code	Financial Engineering and Management	Q
Mandatory IEM courses																	
201700020	IEM research orientation	1+3	201700020	IEM research orientation	1+3	201700020	IEM research orientation	1+3	201700020	IEM research orientation	1+3	201700020	IEM research orientation	1+3	201700020	IEM research orientation	1+3
202300200	Data Science	1-3	202300200	Data Science	1-3	202300200	Data Science	1-3	202300200	Data Science	1-3	202300200	Data Science	1-3	202300200	Data Science	1-3
202001464	Thesis Preparation	--	202001464	Thesis Preparation	--	202001464	Thesis Preparation	--	202001464	Thesis Preparation	--	202001464	Thesis Preparation	--	202001464	Thesis Preparation	--
194100060	Thesis	--	194100060	Thesis	--	194100060	Thesis	--	194100060	Thesis	--	194100060	Thesis	--	194100060	Thesis	--
Mandatory per specialisation																	
202300064	Simulation	1	202300064	Simulation	1	202300064	Simulation	1	202300064	Simulation	1	202300064	Simulation	1	191506103	Statistics & Probability	1
201800003	Operations Research Techniques 1	1+3	201800003	Operations Research Techniques 1	1+3	201800003	Operations Research Techniques 1	1+3	201800003	Operations Research Techniques 1	1+3	201800003	Operations Research Techniques 1	1+3	191860651	Micro Economics *	1
202300332	Stochastic Optimization and Learning	4	202300332	Stochastic Optimization and Learning	4	202300332	Stochastic Optimization and Learning	4	202300332	Stochastic Optimization and Learning	4	202300332	Stochastic Optimization and Learning	4	201300060	Mathematical Finance	2
Mandatory per orientation																	
201800009	Advanced Inventory Management	2	201800009	Advanced Inventory Management	2	201800009	Advanced Inventory Management	2	191506103	Statistics & Probability	1	201800005	Applied Statistical Learning	1	191515101	Introduction to Risk Theory	2
201800008	After-Sales Service Logistics	2	201800008	After-Sales Service Logistics	2	201800007	Planning & Scheduling	4	194121020	Optimization of Healthcare Processes	3	201700196	Advanced Discrete Event Simulation	3	191860181	Risk Management	3
191852630	Reliability Eng. & Maintenance Mngt.	3	201800010	Transportation and Logistics Management	3	191820120	Warehousing	4	201800007	Planning & Scheduling	4	201700197	Decision Making in HC	4	201300062	Structured Products	3

* This course is best suitable for students in their second or third semester of the master programme