

**MSc Industrial Engineering and Management Electives 2022-2023**

**General information on Elective courses:**

All IEM courses from other specialisations and orientations can be taken as electives;  
 In principle all courses from other engineering MSc programmes can be taken as electives, provided there is no overlap with other courses (always check OSIRIS for possible prerequisites);  
 Check the overview of **Additional Specialisations** for more options to fill your elective space.

**Exceptions:**

**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.

At most one Business Administration or Health Science course (not mentioned on this list) is allowed, with a motivation provided to the specialisation coordinator.

**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 in Production Logistics (191531830)** is not allowed, the related course Applied Queueing Models 201800171 is allowed.

**Design of Production and Inventory Systems (191124720)** is not allowed.

**Legend:**

- AM = Applied Mathematics
  - BA = Business Administration
  - BIT = Business and Information Technology
  - CEM = Civil Engineering and Management
  - CS = Computer Science
  - HS = Health Science
  - IT = Interaction Technology
  - IDE = Industrial Design Engineering
  - ME = Mechanical Engineering
- (when no abbreviation is mentioned after a course name, it is of the IEM programme)

 = Course is recommended for this orientation

**IEM Orientations**

Course Code	Course Name	Q**	Production and Logistics Management				HCTM	FEM
			Service Logistics and Maintenance Management	Supply Chain and Transportation Management	Manufacturing Logistics	Operations Management in Healthcare	Health Care Technology and Management	Financial Engineering and Management
201800005	Applied Statistical Learning	1						
201700089	Circular Sust. Business Dev.	1						
201400277	Enterprise Architecture (BIT)	1						
191521800	Game Theory (AM)	1						
201600070	Machine Learning 1 (IT)	1						
201200146	Maintenance Engineering & Management (ME)	1	👍					
192320601	Multi Agent Systems (BIT)	1						
191820160	Purchasing Management	1			👍			
191506103	Statistics & Probability (AM)	1	👍			👍		
201800064	Traffic Operations (CEM)	1		👍				
201400244	Cost Management and Engineering	2					👍	
202000027	Enterprise Security (BIT)	2						
201600025	Finance and Healthcare purchasing (HS)	2				👍		
201200044	Managing Big Data (CS)	2						
202200263	Optimisation of Sustainable Energy Systems	2						
201600032	Quality Management in Healthcare (HS)	2				👍		
201200138	Special Topics in Financial Engineering	2					👍	
201700196	Adv. Sim. for Health Economic Analysis	3				👍		
202000029	Empirical and Design Science Research (BIT)	3						
192340101	Implementation of IT in Organizations (BIT)	3						
194105070	Inform.Syst f/t Fin. Services Industry (BA)	3						
191581420	Mixed-Integer Optimization (AM)	3						
194121020	Optimization of Healthcare Processes	3			👍	👍		
201600015	Strategic Technology Mgmt. & Inn (BA)	3						
201800065	Traffic Management (CEM)	3		👍				
201800010	Transportation and Logistics Management	3			👍			
201100162	Applied Financial Engineering	4					👍	
201700197	Decision Making in HC	4						
192360501	E-Health Strategies	4						
201700294	Engineering Project Management (IDE)	4						
202001552	Human Factors and Organisational Design	4						
202001549	Low Code Application Development (BIT)	4						
201000202	Management control for Fin. Institutions	4					👍	
194122030	New production Concepts	4			👍	👍		
201500510	Pioneers of Applied Mathematics (AM)	4						
201800007	Planning and Scheduling	4	👍	👍				
202100233	Reinforcement Learning with Applications	4	👍	👍	👍	👍	👍	
202000028	Smart Industry Systems (BIT)	4						
191571090	Time Series Analysis (AM)	4						
191820120	Warehousing	4	👍	👍		👍		

\*\* always check OSIRIS for the correct quartile