

MSc Construction Management and Engineering - Curriculum 2020-2021

CME Curriculum 2020-2021: Core, Specialisation & Graduation

MSc CME Year 1 - Core Curriculum & Specialisations

Q1	Q2	Q3	Q4
AR8003TU Legal and Governance 5 ects	CME4000 Project Management 6 ects	CIE4120 Information Systems for the Construction Industry 4 ects	CIE4030 Methodology for Scientific Research 3 ects
CME4200 Intercultural Relations 2 ects	CME1201 Collaborative Design and Engineering 5 ects	CIE4481 Systems Engineering Management 4 ects	CME4500 Engineering Systems Optimisation 4 ects
CME4300 Engineering Asset Management 5 ects	CIE4130 Probabilistic Design 4 ects		SPM9448 Methods for Risk Analysis and Management 5 ects
CME2300 Financial Engineering 4 ects	CME4130 Probabilistic Design Practical 2 ects	CME5000-19 (or CIE5981) Procurement of Complex Projects ** 4 ects	CME2201 Dynamic Control of Projects 4 ects
		CME4100 Process Management 5 ects	AR2R025 Urban (re)Development Game: Integrating Planning, Design and Property Development 10 ects
		WM0376TU Ethics of Technological Risk 5 ects	WM0312CIE Philosophy, Technology Assesment and Ethics 4 ects
			TPM003A Water Ethics 5 ects

MSc CME Year 2 - Specialisations & Graduation

Q5	Q6	Q7	Q8
	CME5100 CME Master Thesis Preparation * 5 ects	CME5200 CME Master Thesis * 30 ects	
EPA1316 (or SEN9235/CME4700) Introduction to Data Science ** 5 ects	CME4700 (or EPA1316/SEN9235) Operations Management for Construction ** 4 ects		
SEN9235 (or EPA1316/CME4700) Game Design Project ** 5 ects			
CIE5981 (or CME5000-19) Forms of Collaboration ** 4 ects			
	CME4400 Entrepreneurial Engineering 4 ects		
CME2100-11 Research Internship * 10 ects	CIE4510-20 Climate Change: Science & Ethics 4 ects		
CIE4061-09 Multidisciplinary Project * 10 ects			
TUD4040 Joint Interdisciplinary Project * 10 ects (for CME)	WM0201-TU-eng Technical writing * 2 ects		

Legend

Compulsory Courses
Synchronisation Course - Compulsory if statistics is lacking in BSc
Ethics Courses - Must choose one of these courses
General Electives
Specialisations
Engineering & Systems
Projects & People
Design & Integration

- ☀ At maximum only 1 out of these 3 courses.
- * May be scheduled at any time
- ** Must choose at least one, but may also choose multiple

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CME Curriculum 2020-2021: Electives & Elective Bundles

MSc CME Year 1 - Electives & Elective Bundles

	Q1	Q2	Q3	Q4
			MOT1531 Digital Business Process Management 5 ects	
			CIE3330 Hydraulic Structures I 4 ects	CIE4170 Construction Technology of Civil Eng. Structures 4 ects
Advanced Risk & Safety Management				CIE5310 Probabilistic Design in Hydraulic Engineering 3 ects
Real Estate			WI4050 Uncertainty and Sensitivity Analysis 6 ects	
Offshore Engineering			OE44115 Arctic Engineering 4 ects	OE44120 Offshore Wind Farms Design 4 ects
Building Engineering			CIE3340-15 Building Structures I 4 ects	CIE4170 Construction Technology of Civil Eng. Structures 4 ects
Economics & Finance				EPA1223 Macro-economics for Policy Analysis 5 ects
Materials			CIE5100 Repair and Maintenance of Construction Materials 4 ects	CIE5816 Urban Regions, Transport and Economics 4 ects

MSc CME Year 2 - Electives & Elective Bundles

	Q5	Q6	Q7	Q8
		CME4600 Leadership and Strategic Management 4 ects	Advanced Project Management	
	CIE4330 Ports and Waterways I 4 ects	EPA1433 Intercultural relations and project management 5 ects	Hydraulic Engineering	
	WM0804TU Project Safety Science 6 ects *	SPM9446 System Reliability in Quantitative Risk Assessment 4 ects		
	AR0880 Real Estate Valuation 7 ects	AR1R025 Real Estate Management 7 ects		
	OE44005 Introduction to Offshore Engineering 3 ects			
	AR1MBE010 Management & Finance 6 ects	CIE4281 Building Structures II 4 ects		
	SPM9715 Intermediate Economics 5 ects	SPM9717 Economics and Finance 5 ects		
	SPM9716 Cost-Benefit-Analysis: Theory and Applications 4 ects	CIE4100 Materials and Ecological Engineering 4 ects		

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Sustainability

AR2AP031
Aesthetics of
Sustainable Architecture
*
5 ects

AR0191
Urban Sustainability (TISD)
*
3 ects

SEN9121
Life-cycle sustainability
assessment for Engineers
5 ects

AR2A015
Delft Lectures on Architectural Sustainability
3 ects

Decision-making

MOT1452
Inter and Intra-organisational
Decision Making
5 ects

CIE5560
Engineering and Development
4 ects

EPA1144
Actor and Strategy Models
5 ects