CHEMICAL ENGINEERING MASTER'S PROGRAM

TU/e EINDHOVEN UNIVERSITY OF TECHNOLOGY

Academic year 2024-2025

Program structure Chemical Engineering		
Year 1	Core program (specialization specific)	20 EC
	Specialization elective program	20 EC
	Free elective program	15 EC
Year 2	Internship	20 EC
	Graduation project	45 EC

The schedule of the first year:

	Track CPT Chemical and Process Technology	Track MSMC Molecular Systems and Materials Chemistry
	Core program CPT track is printed in bold	*Core program MSMC track is printed in bold*
Q1	**6CPT10 Advanced Transport Phenomena (D)**	**6MSM10 Physical Organic Chemistry (C)**
	6EMA01 Micro Flow Chemistry and Process Technology(A) 6EMA02 Particle-based Simulations (B)	6EMA51 Characterization of Materials (B) 6EMA53 Molecular Photo physics (D)
Q2	**6CPT20 Catalysis, Science and Technology (E)**	**6MSM31 Polymer and Colloid Science (C)**
	6EMA08 Multiphase Computational Fluid Dynamics (A)	6EMA64 Molecular Photo Chemistry (E)
	6EMAC1 Essentials of Polymer Reaction Engineering (A) 6EMAC5 Polymer Membranes for Sustainable Process Applications (B) 6EMAC8 Theoretical and Computational Chemistry (D)	
Q3	**6CPT30 Advanced Chemical Reactor Engineering (A)** **6CPT40 Advanced Separation Technology (E)**	
		6EMA63 Sustainable Polymer Chemistry and Materials(B) 6EMA61 Advances in Molecular Chemistry (E) 6EMA59 Experimental Soft Matter (A)
	6EMAC2 Modern Concepts in Catalysis (C) 6EMAC6 Electrochemical Engineering (D)	
Q4	6EMA05 Multiphase Reactor Modelling (D) 6EMA06 Advanced Process Design (B)	6EMA52 Coatings Science and Technology (A) 6EMA62 Device Integrated Responsive Materials (D) 6EMA55 Mechanical Behavior and Rheology (E)
	6EMAC7 ICMS Industrial Challenge	

Course descriptions and information about the study schedule can be found in OSIRIS Catalog: https://tue.osiris-student.nl/#/onderwijscatalogus/extern/cursus?taal=en

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All courses have a study load of 5 credits (EC) based on the European Credit Transfer System except for the International Research/ Design Work Placement (6EMAC4) which has a study load of 15 EC.
Elective course Capita Selecta (6EMAC3) can be planned in any quartile, in consultation with the supervisor and after approval of the board of examiners.

Besides the above-mentioned courses, the department of Chemical Engineering and Chemistry recommends certain elective courses offered by other TU/e departments. Have a look at the CPT and MSMC curricula for more information: https://educationguide.tue.nl/programs/graduate-school/masters-programs/chemical-engineering/.

The courses are all planned according to the timeslot model as shown underneath:

	Monday	Tuesday	Wednesday	Thursday	Friday
1+2 (8:45-10:30)	A_1	C_1	B_1	E_1	D_1
3+4 (10:45-12:30)	A_2	C_2	B_2	E_2	D_2
5+6 (13:30-15:15)	B_1	E_1	D_1	A_1	C_1
7+8 (15:30-17:15)	B_2	E_2	D_2	A_2	C_2
9+10 (17:30-19:15)	E_3	D_3	A_3	B_3	

Post-master's programs

	PDEng	PhD
Duration	2 years	4 years
Focus on	Design for industry	Research
Job opportunities	Technological Designer	Independent researcher
Programs within Chemical Engineering and Chemistry	Process and Product Design	Chemical Engineering and Chemistry