GHENT UNIVERSITY

Study Programme

Academic year 2025-2026

Faculty of Engineering and Architecture

Bridging Programme Master of Science in Chemical Engineering

Language of instruction: English

Programme version 6

1 General Courses 69 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E001161	Mathematic Models *Karel Van Acoleyen -- Department of Electronics and Information Systems*	6	BRUG	1	A:1	180
2	E071040	Introduction to Reactor Science and Kinetics [nl] *Mark Saeys -- Department of Materials, Textiles and Chemical Engineering*	6	BRUG	1	A:1	180
3	E071200	Unit Operations in Chemical Industry *Geraldine Heynderickx -- Department of Materials, Textiles and Chemical Engineering*	6		1	B:1	180
4	E071131	Sustainable Chemical Production Processes *Kevin Van Geem -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:1	180
5	E048500	Thermal Machines *Sebastian Verhelst -- Department of Electromechanical, Systems and Metal Engineering*	6		1		180
6	E073760	Chemical Process Design *Georgios Bellos -- Department of Materials, Textiles and Chemical Engineering*	6		1	B:2	180
7	E071170	Process Control *Dana Copot -- Department of Electromechanical, Systems and Metal Engineering*	6		1	A:2	180
8	E071140	Catalysis and Kinetics *Mark Saeys -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:2	180
9	E073720	Industrial Project *Kevin Van Geem -- Department of Materials, Textiles and Chemical Engineering*	6		2	B:1	180
10	E072110	Chemical Reactors: Fundamentals and Applications *Paul Van Steenberge -- Department of Materials, Textiles and Chemical Engineering*	6		2	B:2	180
11	E071190	Process Intensification *Yi Ouyang -- Department of Materials, Textiles and Chemical Engineering*	3		2	A:2	90
12	E028700	Thermal Installations *Michel De Paepe -- Department of Electromechanical, Systems and Metal Engineering*	6		1	A:1	180

2 Elective Courses 33 credits

Subscribe to 33 credits elective courses, with at least 18 credit units in-depth elective courses and no more than 15 credit units broadening elective courses. Subject to approval by the faculty.

2.1 In-Depth Elective Courses 18 credits

Subscribe to no less than 18 credit units from the following list. Subject to approval by the faculty.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E074200	Kinetic Modelling and Simulation *Joris Thybaut -- Department of Materials, Textiles and Chemical Engineering*	6			A:1	180
2	E071181	Chemistry of Industrial Processes	6			B:2	180
3	E071341	Molecular Modelling of Industrial Processes *Veronique Van Speybroeck -- Department of Applied Physics*	6			A:2	180
4	E064950	Polymer Reaction Engineering *Dagmar D'hooge -- Department of Materials, Textiles and Chemical Engineering*	6			A:2	180
5	E040533	Computational Fluid Dynamics in Chemical Technology *Geraldine Heynderickx -- Department of Materials, Textiles and Chemical Engineering*	3			A:2	90
6	E021525	Statistical Physics [nl] *Louis Vanduyfhuys -- Department of Applied Physics*	3			A:2	90

7	E021560	Molecular Structure [nl]	3	A:2	90
		Veronique Van Speybroeck -- Department of Applied Physics			

2.2 Broadening Elective Courses — 15 credits

Subscribe to no more than 15 credit units broadening elective courses, from the list with broadening elective courses in the Master of Science in Chemical Engineering.

3 Master's Dissertation — 24 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E091103	Master's Dissertation	24		2	B:J	720

Teaching

When a course is not taught (solely) in the programme's language of instruction, the effectively used languages are indicated in square brackets following the cours name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Kroatian/Serbian	zh: Chinese
cs: Czech	el: Greek	fr: French	nl: Dutch	pt: Portuguese	sl: Slovene	
da: Danish	en: English	it: Italian	no: Norwegian	ru: Russian	sv: Swedish	

Semester

Semesters are indicated by their number (1 or 2); semester 3 represents the summer period and J indicates a course spanning semesters 1 and 2.
When a capital letter precedes a semester number, the course has multiple offerings. The letter indicates the offering concerned.
When a semester is shown in brackets, the course in not offered this year in the specific offering.
The offering frequency and first year of offering are indicated by the following codes:

a: bi-annually	c: annually, from 2026-2027	f: annually, from 2027-2028	i: annually, from 2028-2029
b: tri-annually	d: bi-annually, from 2026-2027	g: bi-annually, from 2027-2028	j: bi-annually, from 2028-2029
	e: tri-annually, from 2026-2027	h: tri-annually, from 2027-2028	k: tri-annually, from 2028-2029