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 63 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	6		1	A:2	180
6	E073760	Chemical Process Design *Georgios Bellos -- Department of Materials, Textiles and Chemical Engineering*	6		1	B:2	180
7	E071170	Process Control *Clara-Mihaela Ionescu -- 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

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 *Maarten Sabbe -- Department of Materials, Textiles and Chemical Engineering*	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]	3			A:2	90
7	E021560	Molecular Structure [nl] *Veronique Van Speybroeck -- Department of Applied Physics*	3			A:2	90

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