GHENT UNIVERSITY

Study Programme

Academic year 2025-2026

Faculty of Engineering and Architecture

Bridging Programme Master of Science in Sustainable Materials Engineering

Language of instruction: English

Programme version 3

1 General Courses 78 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	E078310	Sustainable Use of Materials: Metals [nl] *Kim Verbeken -- Department of Materials, Textiles and Chemical Engineering*	3	BRUG	1	A:1	90
3	E068900	Structure and Dynamics of Polymers *Karen De Clerck -- Department of Materials, Textiles and Chemical Engineering*	6		1	B:1	180
4	E069041	Bio-based and Synthetic Fibres *Karen De Clerck -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:1	180
5	E065340	Micro-analysis and Structure Determination in Materials Science *Roumen Petrov -- Department of Electromechanical, Systems and Metal Engineering*	6		1	A:2	180
6	E078320	Sustainable Use of Materials: Plastics and Derived Materials [nl] *Lode Daelemans -- Department of Materials, Textiles and Chemical Engineering*	3	BRUG	1	A:2	90
7	E065472	Metal Extraction and Recycling *Inge Bellemans -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:2	180
8	E071400	Computer Aided Materials Engineering *Lode Daelemans -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:1	180
9	E064221	Design and Manufacturing of Textile Structures *Lieva Van Langenhove -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:2	180
10	E066662	Environmentally Assisted Degradation of Materials *Kim Verbeken -- Department of Materials, Textiles and Chemical Engineering*	6		1	A:2	180
11	E042740	Fracture and Deformation Behaviour of Materials *Leo Kestens -- Department of Electromechanical, Systems and Metal Engineering*	6		2	B:1	180
12	E900069	Composites *Wim Van Paepegem -- Department of Materials, Textiles and Chemical Engineering*	6		2	A:1	180
13	E066230	Microstructure-Property Control of Metals *Leo Kestens -- Department of Electromechanical, Systems and Metal Engineering*	6		2	A:2	180

1.1 General Courses for Metal Science and Engineering 6 credits

Subscribe to the general courses below when Major Metal Science and Engineering is chosen.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E066020	Microstructure of Materials [nl] *Marcel Sluiter -- Department of Electromechanical, Systems and Metal Engineering*	6	BRUG	1	A:2	180

1.2 General Courses for Polymers and Fibre Structures 6 credits

Subscribe to the general courses below when Major Polymers and Fibre Structures is chosen.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E069110	Advanced Fibres and Derived Materials [nl] *Lode Daelemans -- Department of Materials, Textiles and Chemical Engineering*	6	BRUG	1	A:2	180

2 Majors 18 credits

Subscribe to 1 major from the following list. Subject to approval by the faculty.

2.1 Major Metal Science and Engineering 18 credits

Nr	Course		CRDT	Ref	MT1	Session	Study

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E066270	Metal Processing and Technology *Leo Kestens -- Department of Electromechanical, Systems and Metal Engineering*	6		2	A:2	180
2	E066170	Physical Materials Science *Leo Kestens -- Department of Electromechanical, Systems and Metal Engineering*	6		2	C:1	180
3	E024122	Computational Materials Physics *Stefaan Cottenier -- Department of Electromechanical, Systems and Metal Engineering*	6		2	A:2	180

2.2 Major Polymer and Fibre Engineering 18 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E064761	Textile Functionalization *Karen De Clerck -- Department of Materials, Textiles and Chemical Engineering*	6		2	A:2	180
2	E064201	Technical Textiles *Lieva Van Langenhove -- Department of Materials, Textiles and Chemical Engineering*	6		2	A:1	180
3	E064961	Polymer Processing and Circularity *Dagmar D'hooge -- Department of Materials, Textiles and Chemical Engineering*	6		2	A:2	180

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