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 *Hossein Beladi -- 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 *Hossein Beladi -- 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

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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