Study Programme

Academic year 2024-2025

Faculty of Engineering and Architecture

Bridging Programme Master of Science in Electromechanical Engineering -- Mechanical Energy Engineering

Language of instruction: English

Programme version 8

1 General Courses — 54 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E001161	Mathematic Models [nl]	6	BRUG	1	A:1	180
		Karel Van Acoleyen -- Department of Electronics and Information Systems					
2	E005020	Analysis of Systems and Signals [nl]	3	BRUG	1	B:1	90
		Gert De Cooman -- Department of Electronics and Information Systems					
3	E036500	Electrical Machines [nl]	3	BRUG	1	B:1	90
		Luc Dupré -- Department of Electromechanical, Systems and Metal Engineering					
4	E039110	Technical Thermodynamics [nl]	3	BRUG	1	B:1	90
		Michel De Paepe -- Department of Electromechanical, Systems and Metal Engineering					
5	E040030	Dynamics of Rigid Bodies [nl]	3	BRUG	1	A:2	90
		Wim De Waele -- Department of Electromechanical, Systems and Metal Engineering					
6	E037321	Turbomachines	6		1	B:1	180
		Joris Degroote -- Department of Electromechanical, Systems and Metal Engineering					
7	E037121	Displacement Pumps, Compressors and IC Engine Fundamentals	6		1	A:1	180
		Sebastian Verhelst -- Department of Electromechanical, Systems and Metal Engineering					
8	E040670	Mechanical Vibrations	6		1	B:2	180
		Mia Loccufier -- Department of Electromechanical, Systems and Metal Engineering					
9	E036130	Controlled Electrical Drives	6		2	B:1	180
		Frederik De Belie -- Department of Electromechanical, Systems and Metal Engineering					
10	E019331	ICT and Mechatronics	6		2	A:2	180
		Guillaume Crevecoeur -- Department of Electromechanical, Systems and Metal Engineering					
11	E076221	Manufacturing Planning and Control	6		2	A:1	180
		Birger Raa -- Department of Industrial Systems Engineering and Product Design					

2 Courses Related to the Main Subject — 36 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	E028700	Thermal Installations	6		1	A:1	180
		Michel De Paepe -- Department of Electromechanical, Systems and Metal Engineering					
2	E032322	Sensor Based Measurement Systems	3		1	A:2	90
		Herbert De Smet -- Department of Electronics and Information Systems					
3	E043070	Materials Selection in Mechanical Design	6		1	B:2	180
		Stijn Hertelé -- Department of Electromechanical, Systems and Metal Engineering					
4	E045240	Computational Fluid Dynamics	6		2	A:2	180
		Joris Degroote -- Department of Electromechanical, Systems and Metal Engineering					
5	E039211	Heating, Ventilation, Air-conditioning and Refrigeration	3		2	A:1	90
		Steven Lecompte -- Department of Electromechanical, Systems and Metal Engineering					
6	E037621	Gas Turbines	3		2	A:1	90
		Ward De Paepe -- Department of Electromechanical, Systems and Metal Engineering					
7	E035421	Sustainable Energy	3		2	A:1	90
		Jan Mertens -- Department of Electromechanical, Systems and Metal Engineering					

Nr	Course		CRDT	Ref	MT1	Session	Study
8	E037221	IC Engines: advanced design and research	3	2		A:2	90
		Sebastian Verhelst -- Department of Electromechanical, Systems and Metal Engineering					
9	E040560	Fluid Mechanics	3	2		A:1	90
		Joris Degroote -- Department of Electromechanical, Systems and Metal Engineering					

3 Elective Courses — 6 credits

Courses to a total amount of 6 credits to be chosen from:
- Elective Course List Master of Science in Electromechanical Engineering
- the study programmes of the Faculty of Engineering and Architecture
- the study programmes of Ghent University
Subject to the Faculty's approval.

4 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 2025-2026	f: annually, from 2026-2027	i: annually, from 2027-2028
b: tri-annually	d: bi-annually, from 2025-2026	g: bi-annually, from 2026-2027	j: bi-annually, from 2027-2028
	e: tri-annually, from 2025-2026	h: tri-annually, from 2026-2027	k: tri-annually, from 2027-2028