

Programme jointly offered by Ghent University, KU Leuven

Master of Science in Smart Operations and Maintenance in Industry

Campus: Courtray

Language of instruction: English

Programme version 1

1 General Courses 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E680030 Operations Management Strategies <i>UGent - KU Leuven Opleiding, Liliane Pintelon -- KU Leuven</i>	6		1	A:1	180
2	E680010 Digital Twin <i>UGent - KU Leuven Opleiding, Jeroen De Kooning -- Department of Electromechanical, Systems and Metal Engineering</i>	6		1	A:1	180
3	E680020 Monitoring and Prognostics <i>UGent - KU Leuven Opleiding</i>	6		1	A:1	180
4	E680050 Managing Innovation and Transformation <i>UGent - KU Leuven Opleiding, Francesca Ostuzzi -- Department of Industrial Systems Engineering and Product Design</i>	6		1	A:1	180
5	E680040 Smart Factory Design <i>UGent - KU Leuven Opleiding, Johannes Cottyn -- Department of Industrial Systems Engineering and Product Design</i>	6		1	A:2	180

2 Elective Courses 12 credits

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

2.1 Factory Track

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E680130 Safe and Secure System Integration <i>UGent - KU Leuven Opleiding</i>	4		1	A:2	120
2	E680120 Reconfigurable Manufacturing Systems <i>UGent - KU Leuven Opleiding, Johannes Cottyn -- Department of Industrial Systems Engineering and Product Design</i>	4		1	A:2	120
3	E680060 Digital Twins Deployment in the Manufacturing Industry <i>UGent - KU Leuven Opleiding</i>	4		1	A:2	120

2.2 Operations Track

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E680110 Human-Centered Manufacturing <i>UGent - KU Leuven Opleiding, Johannes Cottyn -- Department of Industrial Systems Engineering and Product Design</i>	4		1	A:2	120
2	E680090 Decision Support for Maintenance Logistics <i>UGent - KU Leuven Opleiding, Dieter Claeys -- Department of Industrial Systems Engineering and Product Design</i>	4		1	A:2	120
3	E680060 Digital Twins Deployment in the Manufacturing Industry <i>UGent - KU Leuven Opleiding</i>	4		1	A:2	120

2.3 Machine Track

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E680080 Upgradable Design and Retrofitting of Machines <i>UGent - KU Leuven Opleiding</i>	4		1	A:2	120
2	E680070 Smart Sensing Technologies <i>UGent - KU Leuven Opleiding</i>	4		1	A:2	120
3	E680060 Digital Twins Deployment in the Manufacturing Industry <i>UGent - KU Leuven Opleiding</i>	4		1	A:2	120

3 Master's Dissertation 18 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
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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 course name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Croatian/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 is 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