

Faculty of Engineering and Architecture

Linking Course Master of Science in Electronics and ICT Engineering Technology -- Embedded Systems

Language of instruction: Dutch

Programme version 3

1 General Courses

The student takes one of the following tracks, depending on the result of the qualification test. The reduced track can only be followed on the condition that the student passes the qualification test.
More information on the qualification test: ugent.be/ea

1.1 General Courses

Depending on the student's previous degree and in accordance with the admission requirements.

1.1.1 Intake: Bachelor in de elektronica-ICT en aanverwante opleidingen

90 credits

From students with one of the following previous degrees: Bachelor in de autotechnologie, Bachelor in de elektronica-ICT, Bachelor in de energietechnologie, Bachelor in het energiemangement, Bachelor of Electronics-ICT

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E701033 Mathematics I <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:1	180
2	E702050 Object Oriented Programming <i>Helga Naessens -- Department of Information Technology</i>	6		1	A:1	180
3	E741058 Programming in C <i>Wim Van Den Breen -- Department of Information Technology</i>	3		1	A:1	90
4	E765100 Applied Artificial Intelligence <i>Sofie Van Hoecke -- Department of Electronics and Information Systems</i>	3		1	A:1	90
5	E761050 Computer Networks <i>Wouter Tavernier -- Department of Information Technology</i>	6		1	A:1	180
6	E701034 Mathematics II <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:2	180
7	E702090 Statistics and Mathematical Data-analysis <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:2	180
8	E731018 Embedded Systems: Microcontrollers <i>Patrick Van Torre -- Department of Information Technology</i>	6		1	A:2	180
9	E731036 Digital Electronics <i>Jan Aelterman -- Department of Telecommunications and Information Processing</i>	6		1	A:2	180
10	E731038 Analogue Electronics I <i>Patrick Van Torre -- Department of Information Technology</i>	6		1	A:2	180
11	E731021 Multidisciplinary Engineering Project <i>Guy Torfs -- Department of Information Technology</i>	3		1	A:2	90
12	E702010 Signals and Systems <i>Jan Beyens -- Department of Information Technology</i>	6		2	A:1	180
13	E731034 Numerical Analysis <i>Tanja Van Hecke -- Department of Information Technology</i>	3		2	A:1	90
14	E731039 Analogue Electronics II <i>Patrick Van Torre -- Department of Information Technology</i>	6		2	A:1	180
15	E731037 Embedded Systems: Hardware Synthesis <i>Bart Goossens -- Department of Telecommunications and Information Processing</i>	6		2	A:1	180
16	E702060 Signals and Systems II <i>Jan Beyens -- Department of Information Technology</i>	3		2	A:2	90

17	E731028	Data Communication <i>Jo Verhaever -- Department of Information Technology</i>	3	2	A:2	90
18	E731025	Digital Signal Processing <i>Paul Devos -- Department of Information Technology</i>	6	2	A:2	180

1.1.2 Intake: Bachelor in de toegepaste informatica en aanverwante opleidingen

90 credits

For students with one of the following previous degrees: Bachelor in de toegepaste informatica, Bachelor of Applied Computer Science, Bachelor in de multimedia en creatieve technologie, Bachelor of Creative Technologies and Artificial Intelligence, Bachelor of Multimedia & Creative Technologies, Bachelor in de multimedia en de communicatietechnologie, Bachelor in de multimedia en de communicatietechnologie, afstudeerrichting: multimedia en communicatietechnologie

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E701033 Mathematics I <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:1	180
2	E702050 Object Oriented Programming <i>Helga Naessens -- Department of Information Technology</i>	6		1	A:1	180
3	E741058 Programming in C <i>Wim Van Den Breen -- Department of Information Technology</i>	3		1	A:1	90
4	E701034 Mathematics II <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:2	180
5	E701055 Electronics <i>Jo Verhaever -- Department of Information Technology</i>	3		1	A:2	90
6	E702090 Statistics and Mathematical Data-analysis <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:2	180
7	E731018 Embedded Systems: Microcontrollers <i>Patrick Van Torre -- Department of Information Technology</i>	6		1	A:2	180
8	E731036 Digital Electronics <i>Jan Aelterman -- Department of Telecommunications and Information Processing</i>	6		1	A:2	180
9	E731038 Analogue Electronics I <i>Patrick Van Torre -- Department of Information Technology</i>	6		1	A:2	180
10	E702040 Electronics II <i>Stefaan Lambrecht -- Department of Information Technology</i>	6		1	A:1	180
11	E702010 Signals and Systems <i>Jan Beyens -- Department of Information Technology</i>	6		2	A:1	180
12	E731034 Numerical Analysis <i>Tanja Van Hecke -- Department of Information Technology</i>	3		2	A:1	90
13	E731037 Embedded Systems: Hardware Synthesis <i>Bart Goossens -- Department of Telecommunications and Information Processing</i>	6		2	A:1	180
14	E731039 Analogue Electronics II <i>Patrick Van Torre -- Department of Information Technology</i>	6		2	A:1	180
15	E702060 Signals and Systems II <i>Jan Beyens -- Department of Information Technology</i>	3		2	A:2	90
16	E731028 Data Communication <i>Jo Verhaever -- Department of Information Technology</i>	3		2	A:2	90
17	E731025 Digital Signal Processing <i>Paul Devos -- Department of Information Technology</i>	6		2	A:2	180
18	E731021 Multidisciplinary Engineering Project <i>Guy Torfs -- Department of Information Technology</i>	3		2	A:2	90

1.2 General Courses: Reduced Track

Depending on the student's previous degree and in accordance with the admission requirements.

1.2.1 Intake: Bachelor in de elektronica-ICT en aanverwante opleidingen

60 credits

For students with one of the following previous degrees: Bachelor in de autotechnologie, Bachelor in de elektronica-ICT, Bachelor in de energietechnologie, Bachelor in het energiemanagement, Bachelor of Electronics-ICT

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E701033 Mathematics I <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:1	180
2	E702010 Signals and Systems <i>Jan Beyens -- Department of Information Technology</i>	6		1	A:1	180
3	E761050 Computer Networks <i>Wouter Tavernier -- Department of Information Technology</i>	6		1	A:1	180

4	E731037	Embedded Systems: Hardware Synthesis <i>Bart Goossens -- Department of Telecommunications and Information Processing</i>	6	1	A:1	180
5	E731039	Analogue Electronics II <i>Patrick Van Torre -- Department of Information Technology</i>	6	1	A:1	180
6	E701034	Mathematics II <i>Tanja Van Hecke -- Department of Information Technology</i>	6	1	A:2	180
7	E702090	Statistics and Mathematical Data-analysis <i>Tanja Van Hecke -- Department of Information Technology</i>	6	1	A:2	180
8	E702060	Signals and Systems II <i>Jan Beyens -- Department of Information Technology</i>	3	1	A:2	90
9	E731036	Digital Electronics <i>Jan Aelterman -- Department of Telecommunications and Information Processing</i>	6	1	A:2	180
10	E731028	Data Communication <i>Jo Verhaevert -- Department of Information Technology</i>	3	1	A:2	90
11	E731025	Digital Signal Processing <i>Paul Devos -- Department of Information Technology</i>	6	1	A:2	180

1.2.2 Intake: Bachelor in de toegepaste informatica en aanverwante opleidingen

60 credits

For students with one of the following previous degrees: Bachelor in de toegepaste informatica, Bachelor of Applied Computer Science, Bachelor in de multimedia en creatieve technologie, Bachelor of Creative Technologies and Artificial Intelligence, Bachelor of Multimedia & Creative Technologies, Bachelor in de multimedia en de communicatietechnologie, Bachelor in de multimedia en de communicatietechnologie, afstudeerrichting: multimedia en communicatietechnologie

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E701033 Mathematics I <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:1	180
2	E702010 Signals and Systems <i>Jan Beyens -- Department of Information Technology</i>	6		1	A:1	180
3	E731037 Embedded Systems: Hardware Synthesis <i>Bart Goossens -- Department of Telecommunications and Information Processing</i>	6		1	A:1	180
4	E731039 Analogue Electronics II <i>Patrick Van Torre -- Department of Information Technology</i>	6		1	A:1	180
5	E701034 Mathematics II <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:2	180
6	E702090 Statistics and Mathematical Data-analysis <i>Tanja Van Hecke -- Department of Information Technology</i>	6		1	A:2	180
7	E702060 Signals and Systems II <i>Jan Beyens -- Department of Information Technology</i>	3		1	A:2	90
8	E731038 Analogue Electronics I <i>Patrick Van Torre -- Department of Information Technology</i>	6		1	A:2	180
9	E731036 Digital Electronics <i>Jan Aelterman -- Department of Telecommunications and Information Processing</i>	6		1	A:2	180
10	E731028 Data Communication <i>Jo Verhaevert -- Department of Information Technology</i>	3		1	A:2	90
11	E731025 Digital Signal Processing <i>Paul Devos -- Department of Information Technology</i>	6		1	A:2	180

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