

Faculty of Engineering and Architecture

Bridging Programme Master of Science in Computer Science Engineering

Language of instruction: English

Programme version 7

## 1 General Courses

78 credits

The Bridging Programme Master of Science in Computer Science Engineering is open to students in possession of following diplomas :

- Master in de industriële wetenschappen: informatica
- Master in de industriële wetenschappen: elektronica-ICT, afstudeerrichting ICT
- Master in de industriële wetenschappen: elektronica-ICT, afstudeerrichting ingebbede systemen
- Master in de industriële wetenschappen: elektronica-ICT, afstudeerrichting multimedia en informatietechnologie

All students subscribe to the general courses, supplemented with the general courses according to their entry diploma.

Students who are admitted with the diploma 'Master in de industriële wetenschappen: elektronica-ICT, afstudeerrichting multimedia en informatietechnologie', will follow an adapted Bridging Programme according to their prior education. Subject to approval by the faculty.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E001161 <b>Mathematic Models</b> <i>Karel Van Acoleyen -- Department of Electronics and Information Systems</i>	6	BRUG	1	A:1	180
2	E001470 <b>Discrete Mathematics II [nl]</b> <i>Joris Walraevens -- Department of Telecommunications and Information Processing</i>	6	BRUG	1	B:1	180
3	E031710 <b>Research Project</b> <i>Joris Walraevens -- Department of Telecommunications and Information Processing</i>	3		1	A:1	90
4	E017950 <b>Secure Software and Systems</b> <i>Bart Coppens -- Department of Electronics and Information Systems</i>	6		1	A:1	180
5	E033710 <b>Design Project</b> <i>Femke De Backere -- Department of Information Technology</i>	9		1	A:J	270
6	E003600 <b>Information Theory</b> <i>Heidi Steendam -- Department of Telecommunications and Information Processing</i>	6		1	B:2	180
7	E011325 <b>Queueing Theory</b>	3	BRUG	1	A:2	90
8	E003110 <b>Applied Probability [nl]</b> <i>Sabine Wittevrongel -- Department of Telecommunications and Information Processing</i>	3	BRUG	1	A:2	90
9	E016350 <b>Artificial Intelligence</b> <i>Aleksandra Pizurica -- Department of Telecommunications and Information Processing</i>	6	BRUG	1	A:2	180
10	E034140 <b>Parallel Computer Systems</b> <i>Lieven Eeckhout -- Department of Electronics and Information Systems</i>	6		2	A:1	180
11	E017930 <b>Parallel and Distributed Software Systems</b> <i>Jan Fostier -- Department of Information Technology</i>	6		2	A:1	180
12	E010311 <b>Visual Computing</b>	6		2	A:1	180
13	E061335 <b>Advanced Machine Learning</b>	6		2	A:2	180
14	E004122 <b>Advanced Discrete Algorithms</b> <i>Mario Pickavet -- Department of Information Technology</i>	6		2	A:2	180

### 1.1 Intake: MSc industriële wetenschappen informatica

6 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E031110 <b>Digital Electronics</b> <i>Dirk Stroobandt -- Department of Electronics and Information Systems</i>	6		1	B:1	180

### 1.2 Intake: MSc industriële wetenschappen elektronica-ICT, afstudeerrichting ICT

12 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E018125 <b>Database Management [nl]</b>	6	BRUG	1	A:1	180
2	E019400 <b>Information Security</b> <i>Eric Laermans -- Department of Information Technology</i>	6		1	B:2	180

## Embedded Systems

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E018125 Database Management [nl]	6	BRUG	1	A:1	180
2	E019400 Information Security <i>Eric Laermans -- Department of Information Technology</i>	6		1	B:2	180
3	E061331 Machine Learning: Learning from Data <i>Joni Dambre -- Department of Electronics and Information Systems</i>	6	BRUG	2	A:1	180

## 2 Elective Courses

Subscribe to elective courses from the Master of Science in Computer Science Engineering:

- Intake MSc industriële wetenschappen: informatica  
Subscribe to 12 credit units, at least 6 ECTS from the list Elective Courses Computer Science Engineering and no more than 6 ECTS from the Elective Courses Ghent University. Subject to approval by the faculty.
- Intake MSc industriële wetenschappen: elektronica-ICT, afstudeerrichting ICT  
Subscribe to 6 credit units from the list Elective Courses Computer Science Engineering. Subject to approval by the faculty.

## 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 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 2027-2028	f: annually, from 2028-2029	i: annually, from 2029-2030
b: tri-annually	d: bi-annually, from 2027-2028	g: bi-annually, from 2028-2029	j: bi-annually, from 2029-2030
	e: tri-annually, from 2027-2028	h: tri-annually, from 2028-2029	k: tri-annually, from 2029-2030