GHENT UNIVERSITY

Study Programme

Academic year 2022-2023

Faculty of Sciences

Bachelor of Science in Physics and Astronomy

Language of instruction: Dutch

Programme version 9

1 General Courses — 162 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C000857	Mechanics *Matthieu Boone -- Department of Physics and Astronomy*	6		1	A:1	180
2	C002022	Waves and Optics	6		1		180
3	C000537	Electricity and Magnetism	6		1		180
4	C003133	Introduction to Theoretical Physics *Dimitri Van Neck -- Department of Physics and Astronomy*	6		1	A:2	180
5	C000973	Physics Laboratory 1	6		1		180
6	C003574	Analysis I *Jasson Vindas Diaz -- Department of Mathematics: Analysis, Logic and Discrete Mathematics*	6		1		180
7	C003620	Analysis II	6		1		180
8	C003554	Linear Algebra and Geometry I *Anneleen De Schepper -- Department of Mathematics: Algebra and Geometry*	6		1		180
9	C003717	Programming *Peter Dawyndt -- Department of Mathematics, Computer Science and Statistics*	6		1	A:1	180
10	C001390	Chemistry *Kristof Van Hecke -- Department of Chemistry*	6		1		180
11	C002240	Quantum Mechanics 1 *Jan Ryckebusch -- Department of Physics and Astronomy*	6		2	A:1	180
12	C000104	Thermal Physics *Natalie Jachowicz -- Department of Physics and Astronomy*	6		2	A:2	180
13	C002133	Electromagnetism *Jutho Haegeman -- Department of Physics and Astronomy*	6		2	A:2	180
14	C001369	Material Physics *Diederik Depla -- Department of Solid State Sciences*	6		2	A:2	180
15	C000983	Physics Laboratory 2 *Bartel Van Waeyenberge -- Department of Solid State Sciences*	6		2	A:2	180
16	C001195	Statistics and Data Processing *Arjen van der Wel -- Department of Physics and Astronomy*	6		2	A:1	180
17	C001887	Mathematical Methods in Physics *Nele Vandersickel -- Department of Physics and Astronomy*	6		2	A:1	180
18	C003016	Introduction to Astronomy *Sven De Rijcke -- Department of Physics and Astronomy*	6		2	A:2	180
19	C002994	Extragalactic Astronomy *Maarten Baes -- Department of Physics and Astronomy*	6		2	A:2	180
20	C002245	Quantum Mechanics 2 *Dimitri Van Neck -- Department of Physics and Astronomy*	6		3	A:1	180
21	C002462	Theory of Relativity *Karel Van Acoleyen -- Department of Physics and Astronomy*	6		3	A:1	180
22	C002461	Statistical Physics 1 *Jan Ryckebusch -- Department of Physics and Astronomy*	6		3	A:1	180

23	C000919	Introduction to Atomic and Molecular Physics *Jonas Joos -- Department of Solid State Sciences*	6	3	A:2	180
24	C001063	Solid State Physics *Christophe Detavernier -- Department of Solid State Sciences*	6	3	A:2	180
25	C002100	Subatomic Physics 1 [en] *Didar Dobur -- Department of Physics and Astronomy*	6	3	A:2	180
26	C003005	Physics of Galaxies *Sven De Rijcke -- Department of Physics and Astronomy*	6	3	A:1	165
27	C002351	Bachelorproject *Christophe Detavernier -- Department of Solid State Sciences*	6	3	A:2	180

2 Elective Courses 18 credits

Subscribe to 1 module from the following list. Subject to approval by the faculty.
Students who have followed the Educational Track, can enter directly into the educational master's programme.

2.1 Physics and Astronomy Track 18 credits

Subscribe to 18 credit units from no less than 1 and no more than 2 modules from the following list.

2.1.1 Elective Courses Physics and Astronomy

Subscribe to no more than 18 credit units from the following list, distributed over the first standard learning path as follows:
- no more than 6 credit units in year 2,
- no more than 12 credit units in year 3.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	C000925	Electronics *Dirk Poelman -- Department of Solid State Sciences*	6		2	A:2	180
2	C000838	Thin Films and Surface Physics *Diederik Depla -- Department of Solid State Sciences*	6		3	A:1	180
3	C003938	Introductory Biophysics	6		3		180

2.1.2 Elective Courses UGent

Subscribe to no more than 18 credit units from the bachelor's pogrammes offered by UGent. The course units are preferably chosen from the course units offered by the Faculty of Sciences and / or the Faculty of Engineering and Architecture. The course 'Powerful Learning Environments' from the educational track can also be chosen here. At most 6 credits can be chosen from cours units offered by other faculties. The course units are distributed over the first standard learning path as follows:
- 6 credit units in year 2,
- no more than 12 credit units in year 3.

2.2 Educational Track 18 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	H002169	Powerful Learning Environments *Bram De Wever -- Department of Educational Studies*	6		2	A:1	180
2	H002175	Teaching Methodology: Sciences *Katrien Strubbe -- Department of Chemistry*	6		3	A:J	180
3	H002170	Reference Internship: Sciences *Katrien Strubbe -- Department of Chemistry*	3		3	A:J	90

2.2.1 Elective Courses UGent

Subscribe to 3 credit units from the module 'Physics and Astronomy' or from the bachelor's programmes offered by Ghent University (preferably offered by the Faculty of Sciences and / or the Faculty of Engineering and Architecture).

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 2023-2024	f: annually, from 2024-2025	i: annually, from 2025-2026
b: tri-annually	d: bi-annually, from 2023-2024	g: bi-annually, from 2024-2025	j: bi-annually, from 2025-2026
	e: tri-annually, from 2023-2024	h: tri-annually, from 2024-2025	k: tri-annually, from 2025-2026