1.	Field of study	Physics
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2022/2023 (winter term), 2023/2024 (winter term), 2024/2025 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	—

Specialization: Fundamental and Applied Physics

A

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Computer Programming	EN	E	60	15	45	6	15	45	6									
2	Introductory Master Thesis Seminar	EN	Z	15		15	1		15	1									
3	Research Project Laboratory	EN	Z	60	5	55	7	5	55	7									
4	Selected Topics in Quantum Physics	EN	E	60	30	30	6	30	30	6									
5	Statistical Physics	EN	E	40	20	20	5	20	20	5									
6	Master Thesis Laboratory 1	EN	Z	60		60	8					60	8						
7	Master Thesis Seminar 1	EN	Z	15		15	2					15	2						
8	Set of Diploma Courses I	EN	Z	240	120	120	20				120	120	20						
9	Computer Simulations	EN	Z	45		45	3								45	3			
10	Master Thesis Laboratory 2	EN	Z	60		60	5								60	5			
11	Master Thesis Seminar 2	EN	Z	15		15	2								15	2			
12	Set of Diploma Courses II	EN	Z	240	120	120	20							120	120	20			
13	Master Thesis Laboratory 3	EN	Z	60		60	6											60	6
14	Master Thesis Seminar 3	EN	Z	15		15	3											15	3
15	Specialized Lecture (e-learning)	EN	Z	30	30		3										30		3
	TOTAL A:			**1015**	**340**	**675**	**97**	**70**	**165**	**25**	**120**	**195**	**30**	**120**	**240**	**30**	**30**	**75**	**12**

Internships and field work

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Internships in Research Teams or Industry	EN	Z	160		160	18											160	18
	TOTAL Internships and field work:			**160**	**0**	**160**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**160**	**18**

Other requirements

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	General Academic Module in Humanities	–	Z	45		45	3		45	3									

2	General Academic Module in Social Sciences	–	Z	30		30	2		30	2												
TOTAL Other requirements:				**75**	**0**	**75**	**5**	**0**	**75**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL:				**1250**	**340**	**910**	**120**	**310**		**30**	**315**		**30**	**360**		**30**	**265**		**30**			
TOTAL								**1250**														

The study ends with the awarding of a Master's Degree in the field of Physics: Fundamental and Applied Physics.

Legend

Each semester consists of 15 weeks
E/C - examination/course work
E - ECTS
L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)

1.	**Field of study**	**Physics**
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2022/2023 (winter term), 2023/2024 (winter term), 2024/2025 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	—

Specialization: Nanophysics and Mesoscopic Materials - Modelling and Applications

A

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Mathematical Methods in Physics	EN	E	60	30	30	4	30	30	4									
2	Numerical Methods	EN	E	40	10	30	4	10	30	4									
3	Quantum Physics	EN	E	60	30	30	6	30	30	6									
4	Solid State Physics	EN	E	50	25	25	5	25	25	5									
5	Statistical Physics	EN	E	40	20	20	4	20	20	4									
6	Laboratory Training	EN	Z	100		100	10					100	10						
7	Set of Diploma Courses I - Optional Courses **[see description below]*	*	*	50	30	20	6				30	20	6						
8	Set of Diploma Courses I: Interaction of Radiation with Matter	EN	E	40	20	20	3				20	20	3						
9	Set of Diploma Courses I: Physics of Magnetic Materials	EN	E	40	20	20	3				20	20	3						
10	Set of Diploma Courses I: Physics of Semiconducting Materials	EN	E	50	20	30	4				20	30	4						
11	Set of Diploma Courses I: Spectroscopic and Microscopic Methods	EN	E	50	20	30	4				20	30	4						
12	Master's Laboratory	EN	Z	100		100	7								100	7			
13	Set of Diploma Courses II: Advanced Solid State Physics	EN	E	40	20	20	3							20	20	3			
14	Set of Diploma Courses II: Microsensors	EN	E	30	10	20	3							10	20	3			
15	Set of Diploma Courses II: Nanophysics and Nanomagnetism	EN	E	40	20	20	3							20	20	3			
16	Set of Diploma Courses II: Non-linear Optics	EN	E	20	10	10	2							10	10	2			
17	Set of Diploma Courses II: Numerical Modeling of Solids	EN	E	40	10	30	3							10	30	3			
18	Set of Diploma Courses II: Photoemission Spectroscopy	EN	E	15	15		2							15		2			
19	Set of Diploma Courses II: Physics of Mesoscopic Materials	EN	E	60	30	30	5							30	30	5			
20	Set of Diploma Courses II: Ultrafast Physics	EN	E	15	15		2							15		2			
	TOTAL A:			**940**	**355**	**585**	**83**	**115**	**135**	**23**	**110**	**220**	**30**	**130**	**230**	**30**	**0**	**0**	**0**

Internships and field work

No.	Module	Lang.	E/C	form of teaching: Total	L	O	Total ECTS	year 1 / semester 1: L	O	E	year 1 / semester 2: L	O	E	year 2 / semester 3: L	O	E	year 2 / semester 4: L	O	E
1	Internship	EN	Z	210		210	30											210	30
	TOTAL Internships and field work:			**210**	**0**	**210**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**210**	**30**

Other requirements				form of teaching				year 1						year 2					
								semester 1			semester 2			semester 3			semester 4		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E
1	Advanced English Language Course	EN	E	30		30	2		30	2									
2	General Academic Module in Humanities	–	Z	45		45	3		45	3									
3	General Academic Module in Social Sciences	–	Z	30		30	2		30	2									
	TOTAL Other requirements:			**105**	**0**	**105**	**7**	**0**	**105**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	TOTAL:			**1255**	**355**	**900**	**120**	**355**		**30**	**330**		**30**	**360**		**30**	**210**		**30**
TOTAL								**1255**											

The study ends with the awarding of a Master's Degree in the field of Physics: Nanophysics and Mesoscopic Materials - Modelling and Applications.

* Groups of modules

Set of Diploma Courses I - Optional Courses

Description:						
Optional modules, students select 2 among 4.						
Modules:	Lang.	E/C	L	O	ECTS
Set of Diploma Courses I: Classical Optics	EN	E	20	10	3
Set of Diploma Courses I: Computer Simulations	EN	E	10	20	3
Set of Diploma Courses I: Nanomaterials and Nanotechnologies	EN	E	20	10	3
Set of Diploma Courses I: Soft Matter	EN	E	20	10	3

Legend
Each semester consists of 15 weeks
E/C - examination/course work
E - ECTS
L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)