1.	**Field of study**	**Physics**
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2019/2020 (winter term), 2020/2021 (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	2019/2020

Specialization: Experimental 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	Laboratory of Physics	PL	Z	60		60	10		60	10									
2	Selected Topics of Solid State Physics	PL	E	30	30		3	30		3									
3	Seminarium magisterskie cz.1	PL	Z	15		15	3		15	3									
4	Wybrane zagadnienia z fizyki kwantowej	PL	E	30	30		3	30		3									
5	Wybrane zagadnienia z fizyki teoretycznej	PL	E	30	30		3	30		3									
6	Wykład specjalistyczny I	PL	E	60	60		6	30		3				30		3			
7	Wykład specjalistyczny III	PL	E	60	60		6	30		3				30		3			
8	Laboratorium fizyczne-specjalistyczne cz. 1	PL	Z	60		60	6					60	6						
9	Pracownia magisterska cz.1; przygotowanie pracy magisterskiej	PL	Z	30		30	10					30	10						
10	Seminarium magisterskie cz.2	PL	Z	15		15	3					15	3						
11	Wstęp do teorii ciała stałego	PL	E	60	30	30	7				30	30	7						
12	Wykład specjalistyczny IA	PL	E	30	30		4				30		4						
13	Laboratorium fizyczne – specjalistyczne cz. 2	PL	Z	60		60	4								60	4			
14	Pracownia magisterska cz. 2; przygotowanie pracy magisterskiej	PL	Z	30		30	10								30	10			
15	Seminarium magisterskie cz.3	PL	Z	15		15	2								15	2			
16	Wykład specjalistyczny II	PL	E	30	30		3							30		3			
17	Pracownia magisterska cz. 3; przygotowanie pracy magisterskiej	PL	Z	60		60	27											60	27
18	Seminarium magisterskie cz.4	PL	Z	15		15	3											15	3
	TOTAL A:			**690**	**300**	**390**	**113**	**150**	**75**	**28**	**60**	**135**	**30**	**90**	**105**	**25**	**0**	**75**	**30**

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	Advanced English Language Course	PL	E	30		30	2		30	2									
2	Przedmiot z obszaru nauk humanistycznych	PL	Z	30	30		3							30		3			

3	Przedmiot z obszaru nauk społecznych	PL	Z	30	30		2									30		2						
	TOTAL Other requirements:			**90**	**60**	**30**	**7**	**0**	**30**	**2**	**0**	**0**	**0**	**60**	**0**	**5**	**0**	**0**	**0**					
	TOTAL:			**780**	**360**	**420**	**120**	**255**		**30**	**195**		**30**	**255**		**30**	**75**		**30**					
TOTAL								**780**																

The study ends with the awarding of a Master's Degree in the field of Physics: Experimental 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	2019/2020 (winter term), 2020/2021 (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	2019/2020

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	Fizyka fazy skondensowanej	PL	E	50	25	25	5	25	25	5									
2	Fizyka kwantowa	PL	E	50	30	20	5	30	20	5									
3	Fizyka statystyczna	PL	E	40	20	20	4	20	20	4									
4	Metody matematyczne fizyki	PL	E	60	30	30	5	30	30	5									
5	Numerical Methods	PL	E	40	10	30	4	10	30	4									
6	Fizyka materiałów magnetycznych	PL	E	30	10	20	3				10	20	3						
7	Fizyka materiałów półprzewodnikowych	PL	E	40	10	30	4				10	30	4						
8	Metody spektroskopowe	PL	E	40	20	20	4				20	20	4						
9	Oddziaływanie promieniowania z materią	PL	E	20	10	10	3				10	10	3						
10	Optyka klasyczna	PL	E	50	20	30	5				20	30	5						
11	Pracownia fizyczna	PL	Z	100		100	8					100	8						
12	Symulacje komputerowe	PL	Z	30		30	3					30	3						
13	Fizyka materiałów mezoskopowych	PL	E	60	40	20	6							40	20	6			
14	Mikrosensory	PL	E	50	20	30	5							20	30	5			
15	Modelowanie numeryczne ciał stałych	PL	E	40	10	30	4							10	30	4			
16	Nanofizyka	PL	E	60	60		5							60		5			
17	Optyka nieliniowa	PL	E	20	20		3							20		3			
18	Pracownia magisterska	PL	Z	100		100	4								100	4			
19	Zaawansowana fizyka fazy skondensowanej	PL	E	20	20		3							20		3			
	TOTAL A:			**900**	**355**	**545**	**83**	**115**	**125**	**23**	**70**	**240**	**30**	**170**	**180**	**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	Praktyka	PL	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

No.	Module	Lang.	E/C	form of teaching			Total ECTS	year 1						year 2					
								semester 1			semester 2			semester 3			semester 4		
				Total	L	O		L	O	E	L	O	E	L	O	E	L	O	E
1	Advanced English Language Course	PL	E	30		30	2		30	2									
2	Przedmiot z obszaru nauk humanistycznych	PL	Z	30	30		3	30		3									
3	Przedmiot z obszaru nauk społecznych	PL	Z	30	30		2	30		2									
	TOTAL Other requirements:			**90**	**60**	**30**	**7**	**60**	**30**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	TOTAL:			**1200**	**415**	**785**	**120**	**330**		**30**	**310**		**30**	**350**		**30**	**210**		**30**
	TOTAL							**1200**											

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

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	2019/2020 (winter term), 2020/2021 (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	2019/2020

Specialization: Theoretical Physics – Programme in English

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	Laboratory of Physics	PL	Z	60		60	10		60	10									
2	Master's Seminar I	PL	Z	15		15	3		15	3									
3	Quantum field theory	PL	E	90	45	45	9	45	45	9									
4	Selected Topics of Quantum Physics T	PL	E	60	30	30	6	30	30	6									
5	M. Sc. Thesis Laboratory part I, Preparation of M.Sc Project	PL	Z	30		30	8					30	8						
6	Master's Seminar II	PL	Z	15		15	3					15	3						
7	Selected Topics of Solid State Physics	PL	E	30	30		4				30		4						
8	Specialized Lecture I	PL	E	60	30	30	7				30	30	7						
9	Statistical Physics	PL	E	75	30	45	8				30	45	8						
10	M. Sc. Thesis Laboratory part II, Preparation of M.Sc Project	PL	Z	30		30	11								30	11			
11	Master's Seminar III	PL	Z	15		15	1								15	1			
12	Selected Topics of Theoretical Physics T	PL	E	30	30		3							30		3			
13	Specialized Lecture IA	PL	E	30	30		3							30		3			
14	Specialized Lecture II	PL	E	60	30	30	4							30	30	4			
15	Specialized Lecture III	PL	E	30	30		3							30		3			
16	M. Sc. Thesis Laboratory part III, Preparation of M.Sc Project	PL	Z	60		60	27											60	27
17	Master's Seminar IV	PL	Z	15		15	3											15	3
	TOTAL A:			**705**	**285**	**420**	**113**	**75**	**150**	**28**	**90**	**120**	**30**	**120**	**75**	**25**	**0**	**75**	**30**

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	Advanced English Language Course	PL	Z	30		30	2		30	2									
2	Humanities science	PL	Z	30	30		3							30		3			

3	Social science	PL	Z	30	30		2									30		2					
TOTAL Other requirements:				**90**	**60**	**30**	**7**	**0**	**30**	**2**	**0**	**0**	**0**	**60**	**0**	**5**	**0**	**0**	**0**				
TOTAL:				**795**	**345**	**450**	**120**	**255**		**30**	**210**		**30**	**255**		**30**	**75**			**30**			
TOTAL								**795**															

The study ends with the awarding of a Master's Degree in the field of Physics: Theoretical Physics – Programme in English.

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)