WYDZIAŁ FIZYKI UW

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:	2-year second cycl Academic	e programm /ear: 2023/2	e, full-time 024				
Specialization: Particle Physics							
	First yea	r, semester	1				
			Option A		Option B		
Course name/group of courses	Course code	Type of course	Number of hours	Number of ECTS points	Number of hours	Number of ECTS points	Verification of learning outcomes
Physics Laboratory, 2nd Level A1 or Physics Laboratory, 2nd Level A2	1100-4PLA1 or 1100-4PLA2	lab	45	5	45	5	grade
Courses selected from the list Statistical physics	1100-4SPA or 1100-4SPB	lecture	45	7	45	7	written or oral exam
		exercises	45		45		
Intellectual property and entrepreneurship or Intellectual property and entrepreneurship with team	1100-4IPE or	lecture	30	2	30	5	written exam or project
project (Option A or Option B)	1100-4AF16	project	0	0	75		
Courses selected from the list Numerical analysis			30	3	30	3	written exam or grade
Courses selected from the list Advanced quantum mechanics		lecture	30	6	30	6	written exam
		exercises	30		30		
Modern Experimental Particle Physics	1100-4MEPP	lecture	30	4	30	4	written exam
Selected specialization seminar		seminar	30	2	30	2	grade
In total			315	29	390	32	

Credit with a grade means that the grade is issued on the basis of one or more written tests or one or more written works carried out in the period of the didactic classes and in accordance with the syllabus of the subject

First year, semester 2							
		Option A		Option B			
Course name/group of courses	Course code	Type of course	Number of hours	Number of ECTS points	Number of hours	Number of ECTS points	Verification of learning outcomes
Introduction to Philosophy	1100-IP	seminar	30	3	30	3	grade
Courses selected from the list Numerical analysis			30	3	30	3	writeen exam or grade
Specialization laboratory I, Particle Physics	1100-SLPP	lab	130	13	130	13	wirtten exam or grade
Selected specialization seminar		seminar	30	2	30	2	grade
Modern Particle Physics Experiments	1100-4MPPE	lecture	30	4	30	4	written exam
Selected specialization lecture		lecture	30	2	30	2	written exam or grade
General University Courses (OGUN)*			40	4	10	1	wirtten exam or grade
In total			320	31	200	28	

* 3 ECTS points should be obtained from general courses unrelated to physical sciences, i.e. humanities and social sciences (in total 5 ECTS during the 1 and 2 year)

Second year, semester 3							
		Option A*		Option B			
Course name/group of courses	Course code	Type of course	Number of hours	Number of ECTS points	Number of hours	Number of ECTS points	Verification of learning outcomes
Work placement	1100-WP	internship	80	4	80	4	grade
Team project**	1100-TP or 1100-ZPS2	project	75	5	0	0	grade
Particle physics laboratory I	1100-PPL1	lab	210	19	210	19	grade
Selected specialization seminar		seminar	30	2	30	2	grade
OGUN (General University Courses)***			20	2	70	7	written or oral exam or grade
In total			415	32	390	32	

Poption A is obligatory for those students who did not complete a team project during the first year
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Team project can be taken as a seperate course or as a part of the course that requires teamwork
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2 CTS points should be obtained from general courses unrelated to physical sciences, i.e. humanities and social sciences
Credit with a grade means that the grade is issued on the basis of one or more written tests or one or more written works carried out in the period of the didactic
classes and in accordance with the syllabus of the subject

Second year, semester 4							
Course name/group of courses	Course code	Type of course	Number of hours	Number of ECTS points	Verificati on of learning outcomes		
Proseminar Challenges of the modern times	1100-PCMT	seminar	20	2	grade		
Proseminar Particle Physics	1100-5sPPP	seminar	30	3	grade		
Selected monographic lecture		lecture	30	2	written exam or grade		
Selected specialization seminar		seminar	30	2	grade		
Particle physics laboratory II	1100-PPL2	lab	210	19	pass/fail (no grade)		
In total			320	28			

	Optio	n A	Option B		
In total	Number of hours	Number of ECTS points	Number of hours	Number of ECTS points	
1 year	635	60	710	63	
2 year	735	60	710	60	
1 and 2 year	1370	120	1420	120	