

Field of study: *Physics (Studies in English)*

Profile: general academic

2-year second cycle programme, full-time

Academic year: 2026/2027

Specialization: Particle Physics

First year, semester 1

			Option A		
Course title	Course code	Form of classes	Number of hours	Number of ECTS points	Learning outcomes assessment
Elective course from the Advanced Quantum Mechanics list		lecture	30	6	written or oral exam
		exercises	30		
Intellectual property and entrepreneurship	1100-4IPE	lecture	30	2	written exam
Subject to choose from the Numerical analysis list			30	3	written exam or graded [#]
Statistical analysis of experimental data		lecture	45	5	written exam or graded
Particle physics specialization laboratory I		laboratory	75	7	graded
Introduction to Experimental Particle Physics I		seminar	30	4	written exam or graded
Specialist seminar		seminar	30	2	graded
In total			300	29	

[#] Passing with a grade means that the grade is awarded based on one or more written assessments conducted during the course of the didactic classes or based on one or more written assignments carried out during the period of didactic classes, following the subject's syllabus.

First year, semester 2

			Option A		
Course title	Course code	Form of classes	Number of hours	Number of ECTS points	Learning outcomes assessment
Introduction to Philosophy	1100-IP	seminar	30	3	graded
General University Courses (OGUN)*			60	6	written exam or graded
Particle Physics specialisation laboratory II		lab	75	7	written reports (graded)
Specialist seminar		seminar	30	2	grade
Introduction to Experimental Particle Physics II		lecture	30	4	written exam or graded
Computing in Experimental Particle Physics	1100-4CEPP	workshop	30	4	graded
Specialist lecture		lecture	30	3	written exam or grade
In total			285	29	

* The completion of 5 ECTS from subjects in the fields of humanities or social sciences is required as part of the study program.

Second year, semester 3					
			Option A		
Course title	Course code	Form of classes	Number of hours	Number of ECTS points	Learning outcomes assessment
Team project**	1100-ZPS2	project	75	5	graded
Particle physics laboratory I	1100-PPL1		225	20	graded
Specialist seminar		seminar	30	2	graded
Modern Experimental Particle Physics	1100-4MEPP	lecture	30	4	written exam or graded
In total			360	31	

** A team project can be completed within a dedicated course or as part of other courses in the study program, provided that the organization of the subject's classes involves teamwork.

Second year, semester 4					
Course title	Course code	Form of classes	Number of hours	Number of ECTS points	Learning outcomes assessment
Proseminar Challenges of the modern times	1100-PCMT	seminar	20	2	graded
Work placement***	1100-WP		80	4	graded
Proseminar Particle physics	1100-5sPPP	seminar	30	3	graded
Specialist seminar		seminar	30	2	graded
Particle physics laboratory II	1100-PPL2	lab	225	20	submission of a master's thesis accepted by the supervisor
In total			385	31	

*** Work placements are passed based on a written substantive report in which the student presents the scope of tasks performed during the internships. The report is confirmed by a representative of the internship organizer. The report is reviewed by the internship supervisor or assistant internship supervisor, who propose an assessment for the internship.

In total	Option A	
	Number of hours	Number of ECTS points
1 year	585	58
2 year	745	62
1 and 2 year	1330	120

Comments:

Passing with a grade means that the grade is awarded based on one or more written assessments conducted during the course of the didactic classes or based on one or more written assignments carried out during the period of didactic classes, following the subject's syllabus.

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** A team project can be completed within a dedicated course or as part of other courses in the study program, provided that the organization of the subject's classes involves teamwork.

*** Work placements are passed based on a written substantive report in which the student presents the scope of tasks performed during the internships. The report is confirmed by a representative of the internship organizer. The report is reviewed by the internship supervisor or assistant internship supervisor, who propose an assessment for the internship.