

## STUDY PROGRAMME CURRICULUM PHYSICS EDUCATION

2022/2023

Name of study programme	<b>Physics Education</b>
Programme characteristics	teacher education
Type	master's
Cycle	master
University of Ljubljana members	• Faculty of Mathematics and Physics, Jadranska ulica 19, 1000 Ljubljana, Slovenija

Year 1

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0080244	Seminar I	Anton Ramšak, Denis Arčon	0	90	0	0	0	30	120	4	1st semester	no
2.	0188784	Didactics of physics 2	Gorazd Planinšič	30	15	45	0	0	90	180	6	1st semester	no
3.	0188785	Selected chapters from physics of matter	Miha Ravnik	60	15	0	0	0	105	180	6	1st semester	no
4.	0188787	Pedagogy with Andragogy	Monika Govekar Okoliš	75	0	0	0	0	105	180	6	All-year	no
5.	0188788	Izbirni predmeti*		60	15	15			210	300	10	1st semester	yes
6.	0079053	Methodological laboratory	Aleš Mohorič	0	15	60	0	0	75	150	5	2nd semester	no
7.	0188790	Didactics	Jana Kalin	30	0	15	0	0	45	90	3	2nd semester	no
8.	0079054	Teaching practice 1	Gorazd Planinšič	30	0	0	0	150	120	300	10	2nd semester	no
9.	0080248	MASTER THESIS RESEARCH WORK 1	Gorazd Planinšič	0	0	0	0	75	225	300	10	2nd semester	no

	Total	285	150	135	0	225	1005	1800	60	
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\* Aletrantively provided every second year:

*Pedagogy with Andragogy, Developmen of physics and Electives (+/-2 KT)*

*Didactics of physics and Electvoes (3 ECTS)*

*Didactics and Electives (3ECTS)*

*Didactics of physics 2 and Didactic of physics 3*

*Selected topics from physics of matter and Selected topics from astrophisics and physics of particles*

## Year 2

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0188793	Seminar II	Anton Ramšak, Denis Arčon, Svjetlana Fajfer	0	0	45	0	0	75	120	4	1st semester	no
2.	0188794	Didactics of physics 3	Gorazd Planinšič	30	15	45	0	0	90	180	6	1st semester	no
3.	0188795	Selected topics from astrophysics and particle physics	Tomaž Podobnik, Tomaž Zwitter	60	15	0	0	0	105	180	6	1st semester	no
4.	0079056	Teaching practice 2	Gorazd Planinšič	30	0	0	0	75	45	150	5	1st semester	no
5.	0188807	Development of ideas in Physics	Gorazd Planinšič	30	15	0	0	0	75	120	4	1st semester	no
6.	0188797	Izbirni predmeti*		60	15	30			45	150	5	1st semester	yes
7.	0079058	MASTER THESIS	Gorazd Planinšič	0	0	0	0	150	450	600	20	2nd semester	no

		RESEARCH WORK 2										
8.	0188799	Izbirni predmeti*	60	30	30		20	160	300	10	2nd semester	yes
Total			270	90	150	0	245	1045	1800	60		

Pri *izbirnih predmetih* so navedene okvirne vrednosti; dejanske vrednosti so odvisne od izbire predmetov.

\* Aletrantively provided every second year:

*Pedagogy with Andragogy, Developmen of physics and Electives (+/-2 KT)*

*Didactics of physics and Electvoes (3 ECTS)*

*Didactics and Electives (3ECTS)*

*Didactics of physics 2 and Didactic of physics 3*

*Selected topics from physics of matter and Selected topics from astrophysics and physics of particles*

Year 1, Year 2, Programme related electives

				Contact hours									
University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective	
1.	0078521	How things work	Aleš Mohorič, Gorazd Planinšič	30		15	0	0	45	90	3	1st semester	yes
2.	0114779	Modern Physics 2	Peter Križan	30	0	30	0	0	90	150	5	1st semester	no
3.	0109645	Introduction to physics of the atmosphere	Gregor Skok	30	0	15	0	0	45	90	3	1st semester	yes
Total				90	0	60	0	0	180	330	11		

Year 1, Year 2, Pedagogy related electives

				Contact hours									
University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective	

1.	0079064	Project work in science	Gorazd Planinšič	0	15	30	0	0	45	90	3	2nd semester	yes
2.	0109643	Methodology of teaching heat and optics	Mojca Čepič	25	5	30	0	0	60	120	4	1st semester	yes
3.	0109644	Methodology of teaching mechanics	Mojca Čepič	25	5	30	0	0	60	120	4	2nd semester	yes
4.	0542957	Teaching mathematics and physics in English	Alexander Keith Simpson, Gorazd Planinšič, Jaka Smrekar	30		30			90	150	5	1st semester, 2nd semester	yes
Total				80	25	120	0	0	255	480	16		

Note:

Students select the electives according to directions of the faculty and approved by the study commission of the faculty.