Course code	P_CC2							
Type and description	Core Curriculum in Physics							
ECTS credit	2							
Course name	Current trends in physical sciences							
Course name in Polish	Współczesne trendy rozwoju głównych dziedzin fizyki							
Language of instruction	English							
Course level	8 PRK							
Course coordinator	prof. dr hab. Katarzyna Pernal							
Course instructors	prof. dr hab. inż. Jolanta Prywer, dr hab. inż. Jaromir Tosiek, prof. dr hab. Katarzyna Pernal, dr hab. inż. Mariola Buczkowska, prof. dr hab. inż. Tomasz Czyszanowski, dr hab. inż. Michał Wasiak, dr hab. inż. Maciej Dems							
Delivery methods and course duration		Lecture	Tutorials	Laboratory	Project	Seminar	Other	Total of teaching hours during semester
	Contact hours	15						15
	E-learning	No	No	No	No	No	No	
	Assessment criteria (weightage)	100%						
Course objective	Exposing PhD students to current trends in physical sciences related to their research work.							
Learning outcomes	A PhD student acquires knowledge at advanced level and learns about recent achievements in the physical sciences related to their field of research.							
Assessment methods	Take-home exam.							
Prerequisites	Completed university-level physics and mathematics courses.							
Course content with delivery methods	The semester-long course content includes selected topics (to be decided by the lecturer) in one of the following fields:							
	advanced quantum mechanics							

		 many-electron physics advanced crystal physics advanced photonics advanced liquid crystal physics nonlinear optics 			
Basic materials	reference	Scientific papers and monographs recommended by a lecturer.			
Other materials	reference	Scientific papers.			
Average workload classroom	student outside	35h			
Comments					
Last update		20.01.2022			