

Course code																																	
Type and description	Background Course																																
ECTS credit	2																																
Course name	Methodology of scientific research																																
Course name in Polish	Metodyka pracy badawczej																																
Language of instruction	English																																
Course level	8 PRK																																
Course coordinator	Marcin Kamiński																																
Course instructors	Marcin Kamiński																																
Delivery methods and course duration	<table><tr><td></td><td>Lecture</td><td>Tutorials</td><td>Laboratory</td><td>Project</td><td>Seminar</td><td>Other</td><td>Total of teaching hours during semester</td></tr><tr><td>Contact hours</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>15</td></tr><tr><td>E-learning</td><td>No</td><td>Yes</td><td>No</td><td>No</td><td>No</td><td>No</td><td></td></tr><tr><td>Assessment criteria (weights)</td><td>0,00</td><td></td><td></td><td></td><td></td><td>0,00</td><td></td></tr></table>		Lecture	Tutorials	Laboratory	Project	Seminar	Other	Total of teaching hours during semester	Contact hours	0	0	0	0	0	0	15	E-learning	No	Yes	No	No	No	No		Assessment criteria (weights)	0,00					0,00	
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Course objectives	The main objective of this course is to introduce the PhD Candidate to scientific work in general, to instruct this Candidate how to find a literature of the problem, how to properly define and to describe research problem, and also how to efficiently solve such a problem. This course is devoted to introduction of the PhD students into complexity of the scientific methods and research evidence. One of the objectives is to prepare PhD students to efficiently present their research findings, to carry out some scientific discussion and also to continue research career according to scientific ethical demands.																																
Learning outcomes	After this course a PhD candidate would be able to: [1] make efficient research plans, foreseen their possible results, analyze the research results, [2] identify and solve research problems related to innovative activity, [3] search, analyze and synthesize research records and publications allocated in scientific databases (Scopus, Google Scholar and Research Gate), [4] communicate using various information channels with professionals and colleagues representing the same research area in Polish and English, [5] edit and write scientific reports and publications, [6] prepare and deliver research presentations, and also participate and conduct scientific discussion.																																
Assessment methods	Participation in discussion - U2, K1, Project presentation - W4, U1, K1. The final evaluation: project: 70% and presentation: 30%.																																
Prerequisites	Fundamental knowledge of English, Computer Science as well as the research plan of his (her) own PhD thesis is required.																																
Course content with delivery methods	Tutorial would consist of the following topics: 1. various research methodologies: empirical, theoretical, computer simulation, statistical, heuristic, diagnostic, tests, questionnaires, hybrid (technological foresight) and literature studies; 2. composition, writing and editing of research papers; 3. scientific databases and their usage in the research practice, an overview of modern research metrics and their importance; 4. composition, writing and editing of PhD dissertations;																																

	<p>5. fundamental ethical demands in scientific research;</p> <p>6. composition, editing and delivering of research presentations.</p>
<b>Basic reference materials</b>	<p>[1] Patton M.Q., Quality evaluation and research methods, third edition, Newbury Park, USA, 2002.</p> <p>[2] Kotarbiński T., Elements of cognition, formal logic and methodology of science (in Polish), Ossolineum, Wrocław, 2004.</p>
<b>Other reference materials</b>	[1] Kotarbiński T., A treatise about a good job (in Polish). Warsaw, Ossolineum, 1981.
<b>Average student workload outside classroom</b>	35 h
<b>Comments</b>	
<b>Last update</b>	05.01.2022