Course code	TCS_CC1							
Type and description	TCS core curriculum							
ECTS credit	1							
Course name	Methods of Scientific Research							
Course name in Polish	Metodyka pracy naukowej							
Language of instruction	English							
Course level	8 PRK							
Course coordinator	Volodymyr Mosorov							
Course instructors	Volodymyr Mosorov							
Delivery methods and course duration		Lecture	Tutorials	Labora- tory	Project	Seminar	Other	Total of teaching hours during se- mester
	Contact hours					15		15
	Assess- ment crite- ria (weight- age)	No	No	No	No	No 100%	No	
Course objective	Understanding the nature of scientific research and acquiring the ability to apply research methods.							
Learning outcomes	1) Knowledge on the principles of methodology for conducting research and scientific projects. 2) Ability to acquire information from various sources, their integration, interpretation and critical evaluation, as well as concluding and formulating opinions, in particular when formulating and solving tasks related to modeling and designing elements, systems and manufacturing process. 3) Assemble the Elements of Scientific Argument. 4) Ability to formulate and test hypotheses related to selected issues in the field. 5) Presenting Research in Alternative Forum							
Assessment methods	Evaluation of research work on a given topic, reports, presentations and activity during seminar							

Prerequisites	
Course content with delivery methods	Lecture and seminar
methous	Discussion of selected issues:
	1. Introduction to the methodology of scientific research
	2. Science and scientific disciplines
	3. Methods of acquiring knowledge
	4. Research strategy, scientific method
	5. Troubleshooting
	6. Methods of conducting research
	7. Planning a scientific experiment
	8. Work in teams
	9. Ethics of scientific research
	Outside classroom:
	1. A critical review of the literature
	2. The structure of a scientific article
	3. Presentation of the research report
Basic reference materials	K. L. Turabian, A Manual for Writers of Research Papers, Theses, and Dissertations, 9th edi-
	tion, The University of Chicago Press, April 2018
	15 Great Books on How to Write a Dissertation: https://selectedreads.com/15-great-books-
	on-how-to-write-a-dissertation/
Other reference materials	Journal papers collected by the students
Average student workload outside classroom	35 h
Comments	
Last update	