<table>
<tr><td>Course code</td><td>TCS_CC1</td></tr>
<tr><td>Type and description</td><td>TCS core curriculum</td></tr>
<tr><td>ECTS credit</td><td>2</td></tr>
<tr><td>Course name</td><td>Methodology of Scientific Research</td></tr>
<tr><td>Course name in Polish</td><td>Metodyka pracy naukowej</td></tr>
<tr><td>Language of instruction</td><td>English</td></tr>
<tr><td>Course level</td><td>8 PRK</td></tr>
<tr><td>Course coordinator</td><td>Volodymyr Mosorov</td></tr>
<tr><td>Course instructors</td><td>Volodymyr Mosorov</td></tr>
<tr><td>Delivery methods and course duration</td><td>
<table>
<tr><th></th><th>Lecture</th><th>Tutorials</th><th>Laboratory</th><th>Project</th><th>Seminar</th><th>Other</th><th>Total of teaching hours during semester</th></tr>
<tr><td>Contact hours</td><td></td><td></td><td></td><td></td><td>15</td><td></td><td>15</td></tr>
<tr><td>E-learning</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td></td></tr>
<tr><td>Assessment criteria (weightage)</td><td></td><td></td><td></td><td></td><td>100%</td><td></td><td></td></tr>
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<tr><td>Course objective</td><td>Understanding the nature of scientific research and acquiring the ability to apply research methods.</td></tr>
<tr><td>Learning outcomes</td><td>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</td></tr>
<tr><td>Assessment methods</td><td>Evaluation of research work on a given topic, reports, presentations and activity during seminar</td></tr>
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Prerequisites	
Course content with delivery methods	Lecture and seminar 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 edition, 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	