

**DOCTORAL SCHOOL OF THE MARIA GRZEGORZEWSKA UNIVERSITY**

**CLASS DESCRIPTION**

<b>COURSE TITLE</b>	<b>Scientific research in practice</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows how research teams function.
	<b>Skills</b>
SD_U09	The student can conduct research as part of a team.
	<b>Social competencies</b>
SD_K05	The student is ready to initiate action for the public interest.
SD_K06	The student can think and act resourcefully.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. The doctoral student joins a research team of their choice to carry out a research project.</li> <li>2. The student finds out how a research team works and how scientific research is conducted.</li> <li>3. The student actively participates in the research and organizational work of the research team.</li> </ol>	

<b>COURSE TITLE</b>	<b>Higher education didactics 1 - 4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student is familiar with major contemporary theories in learning and teaching.
SD_W01	The student knows the specifics of adult education and higher education.
	<b>Skills</b>
SD_U10	The student can match appropriate content, forms of classes, educational methods, and assessment method to a specific educational goal, taking into account a variety of factors.
SD_U11	The student can design teaching activities using a variety of educational methods.
SD_U10	The student can provide valuable feedback (orally and in writing).
SD_U10	The student designs and conducts an evaluation of their own teaching work.
	<b>Social competencies</b>
SD_K03	The student is ready to recognize the importance of knowledge in solving cognitive and practical problems.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Learning and teaching – theoretical approaches and educational practice.</li> <li>2. Adult education and the specifics of higher education.</li> <li>3. Educational goals in the context of selection of content and form of learning activities.</li> <li>4. Educational methods in higher education - lecture, workshop in a small group, e-learning, tutoring method, seminar.</li> <li>5. Providing feedback and assessment.</li> <li>6. Reflecting on student's own teaching work and its evaluation.</li> </ol>	

<b>COURSE TITLE</b>	<b>Ethics of scientific research</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W06	The student understands the essence of research ethics.
SD_W07	The student knows good practices in scientific research.
	<b>Skills</b>
SD_U02	The student identifies ethical issues based on specific examples, analyzes them, and proposes an independently developed solution.
	<b>Social competencies</b>
SD_K01	The student has the ability to reflect more deeply on the broader context of doing science and the implications of scientific research, as well as the responsibility of science, scientists, and researchers.
SD_K04	The student is aware of the responsibilities of modern science and technology, as well as the risks and limitations in predicting the ultimate practical consequences of scientific research.
SD_K05	The student better understands themselves as a future researcher and the need to adhere to ethics.
SD_K07	<p>The student is ready to uphold and develop the ethos of research and creative communities, including by:</p> <ul style="list-style-type: none"> <li>- conducting scientific work independently,</li> <li>- respecting the principle of public ownership of research results, taking into account the principles of intellectual property protection.</li> </ul>
SD_K04	The student is prepared to take on professional and public challenges, taking into account their ethical dimension, accepting responsibility for their outcomes, and shaping proper behavior patterns.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	

1. Principles of ethical scientific practice.
2. Discussion of relationships between researcher-subjects, researcher-sponsors, and research funders.
3. Unethical behavior in science: data fabrication, falsification of results, and plagiarism.
4. Independent preparation of an application filed with research ethics committee for research projects (correct formulation of consent form).

<b>COURSE TITLE</b>	<b>Communicating scientific results</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W04	The student knows possible ways of communicating research results.
	<b>Skills</b>
SD_U03	The student can transfer research results to the economic and social spheres
SD_U04	The student can communicate research results depending on the purpose of presentation, type of data, and audience.
SD_U05	The student can disseminate research results, including in popular forms.
	<b>Social competencies</b>
SD_K04	The student is ready to fulfill the social obligations of researchers.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Definition of scientific communication, types of communication.</li> <li>2. Communicating research results at scientific conferences.</li> <li>3. Scientific presentations.</li> <li>4. Scientific poster.</li> <li>5. Article popularizing research results.</li> <li>6. Choosing the appropriate method of presenting research results, depending on the purpose of presentation, type of data, and audience.</li> </ol>	

<b>COURSE TITLE</b>	<b>Research methodology and basics of data analysis in social sciences</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W03	The student knows and understands research methodologies in social sciences.
SD_W03	The student knows selected data collection methods and tools corresponding to the conducted scientific research.
SD_W03	The student knows the basic principles of data analysis in social sciences.
	<b>Skills</b>
SD_U01	The student can apply methodological knowledge in research work, in particular, to define the purpose and object of research, formulate hypotheses and research questions, develop methods, techniques, and research tools and find creative applications for them, and draw conclusions and generalize based on research results
SD_U02	The student can use their knowledge to critically analyze and assess the results of research, expert activities, and other creative works, as well as their contribution to the development of social sciences.
	<b>Social competencies</b>
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<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. The role of social sciences in the research system.</li> <li>2. Scientific method: deduction, induction, abduction.</li> <li>3. Formulating scientific problems: problematization, cognitive gaps, originality.</li> <li>4. Quantitative and qualitative research strategy.</li> <li>5. Data collection.</li> <li>6. Quantitative data analysis.</li> <li>7. Coding and interpreting qualitative data.</li> </ol>	

<b>COURSE TITLE</b>	<b>Expert mentoring</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows and understands selected issues relevant to the preparation of the doctoral dissertation.
	<b>Skills</b>
SD_U02	The student can present and critically analyze scientific literature and lead discussions based on it.
SD_U10	The student can independently plan and take action for their own development.
	<b>Social competencies</b>
SD_K03	The student is ready to recognize the importance of knowledge in solving cognitive and practical problems.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<p>Doctoral students have the opportunity to work individually with an academic of their choice in the form of expert mentoring. The mentor can be any academic teacher with at least a doctoral degree who is employed at the Academy of Special Education and agrees to work with the student. The doctoral student (in consultation with the supervisor) finds an expert who will help them acquire appropriate knowledge or skills related to a specific issue concerning the preparation of the doctoral dissertation.</p> <p>After identifying the doctoral student's needs, the mentor assigns a task to be completed and shares specific knowledge and experience in their area of expertise.</p> <p>Upon completing the cycle, both the doctoral student and the mentor fill out their respective reports, outlining the topic, discussed issues, course of activities, and achieved results. The report serves as the basis for the course evaluation.</p>	

<b>COURSE TITLE</b>	<b>Academic Writing – Basics</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W04	The student knows the rules governing the structure and organization of a scientific article, as well as the rules for creating footnotes and bibliographies (editorial standards for text preparation, such as APA).
SD_W04	The student knows various forms of scientific articles, for example: <i>short report, empirical report, theoretical review</i> .
	<b>Skills</b>
SD_U09	The student can prepare a scientific article in Polish or English individually or in a team.
	<b>Social competencies</b>
SD_K01	The student is ready to critically assess achievements within a given scientific discipline.
SD_K02	The student is ready to critically evaluate their own contribution to the development of a particular scientific discipline.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Basic principles of planning and writing a scientific article: article structure, footnotes, bibliography, and types of articles.</li> <li>2. Good and bad practices in writing scientific articles based on real-life examples.</li> <li>3. Rules for submitting an article to scientific journals, peer-review procedures, and inclusion of reviewers' comments.</li> </ol>	



<b>COURSE TITLE</b>	<b>Academic writing - advanced level</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W04	The student has in-depth knowledge of various forms of scientific articles: short report, empirical report, theoretical review.
SD_W04	The student knows the concept of review process.
	<b>Skills</b>
SD_U09	The student can prepare an empirical research article in English independently or in a team.
SD_U05	The student can independently submit a scientific article in English to an international journal.
SD_U07	The student can prepare responses to reviews.
SD_U08	The student can speak a foreign language at the B2 level according to the Common European Framework of Reference for Languages to the extent necessary to participate in international scientific and professional environments.
	<b>Social competencies</b>
SD_K01	The student is ready to critically assess achievements within a given scientific discipline.
SD_K02	The student is ready to critically evaluate their own contribution to the development of a particular scientific discipline.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. The market for scientific publishing and journals and the specifics of individual journals (journal quality indicators, e.g. IF; citation analyses).</li> <li>2. Types and structure of scientific publications.</li> <li>3. Scientific articles in English. Submission procedure.</li> <li>4. Methods of responding to reviews.</li> </ol>	

<b>COURSE TITLE</b>	<b>Practice 1-4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W07	The student knows the principles of conducting teaching activities and the requirements for academic teachers.
	<b>Skills</b>
SD_U11	The student has skills related to the methodology of conducting teaching activities.
	<b>Social competencies</b>
SD_K04	The student demonstrates commitment to preparing and conducting teaching activities.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
Practice prepares doctoral students studying at the Doctoral School for the profession of academic teacher. Practice are carried out in the form of: (1) independent teaching or (2) participation in teaching. Teaching means conducting classes in a specific subject independently according to the assigned schedule. Participation in teaching refers to the doctoral student's presence in classes taught by an academic teacher and collaborating with the academic teacher at every stage of the class.	

<b>COURSE TITLE</b>	<b>Preparation of grant applications</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W06	The student knows the sources of funding for research projects, grant-making institutions, categories of funds, and types of competitions.
SD_W06	The student knows the principles of preparation of grant applications: sections of an application, types of required supplementary documents, descriptive and cost-estimate sections of an application, the rules for evaluating grant applications, as well as the procedures for project implementation and settlement.
	<b>Skills</b>
SD_U09	The student can independently prepare a grant proposal that meets the competitive criteria for an intra-university grant.
	<b>Social competencies</b>
SD_K04	The student is ready to submit research projects.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Research grants – types of grants, purposes, types of funding institutions, and general rules for applying for research funding.</li> <li>2. Student's own research and statutory research funded by universities.</li> <li>3. General procedure for applying for research funding.</li> <li>4. Key criteria for evaluating grant applications: <ul style="list-style-type: none"> <li>- purpose of the project,</li> <li>- novelty/originality of the project,</li> <li>- methodological correctness,</li> <li>- project impact on scientific advancement and practices.</li> </ul> </li> <li>5. Types of research tasks.</li> <li>6. Construction of a cost estimate for a research project.</li> </ol>	

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| 7. | General rules for implementing and settling research projects funded by university. |
| 8. | Preparation of an original proposal for a research project funded by university.    |

<b>COURSE TITLE</b>	<b>Preparation of Grant Applications - Advanced Level</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W06	The student knows the sources of funding for research projects, grant-making institutions, categories of funds, and types of competitions.
SD_W06	The student knows the principles of preparation of grant applications: sections of an application, types of required supplementary documents, descriptive and cost-estimate sections of an application, the rules for evaluating grant applications, as well as the procedures for project implementation and settlement.
	<b>Skills</b>
SD_U01	The student can independently prepare a grant proposal that meets the competitive criteria for an external grant.
SD_U08	The student can speak a foreign language at the B2 level according to the Common European Framework of Reference for Languages to the extent necessary to participate in international scientific and professional environments.
	<b>Social competencies</b>
SD_K04	The student is ready to submit research projects.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. External institutions funding research projects: the National Science Center (NCN), the National Center for Research and Development (NCBiR), the Ministry of Science and Higher Education (MNiSW), European institutions.</li> <li>2. Types and key assumptions of NCN competitions. NCN competitions implemented under agreements with other countries. Types of NCBiR competitions aimed at representatives of social sciences.</li> <li>3. Procedures for submitting a proposal for NCN-funded research and the stages of its evaluation.</li> <li>4. Key criteria for evaluating NCN-funded grant proposals.</li> <li>5. Cost estimate for a research project funded by NCN. Types of project costs, equipment purchases, salaries, and indirect costs of project implementation.</li> </ol>	

6. General rules for implementing and settling research projects funded by NCN.
7. General rules for preparing grant proposals submitted to NCN – structure; description of project leader profile, substantive description of planned research, structure of project cost estimate.
8. Preparation of an original proposal for a research project funded by NCN.

<b>COURSE TITLE</b>	<b>Reviewing scientific papers</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W04	The student understands the review process for scientific papers (articles) and the principles of carrying out constructive reviews for research and review papers
	<b>Skills</b>
SD_U02	The student can critically analyze and formulate constructive reviews for scientific research results and review papers
SD_U07	The student can participate in scientific discourse carried out during the review process
	<b>Social competencies</b>
SD_K01	The student is ready to critically assess achievements within a given scientific discipline.
SD_K04	The student is ready to fulfill the social obligations of researchers in the field of reviewing scientific papers
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. The review process from the reviewer's perspective.</li> <li>2. Review paths, one-time reviews, ongoing journal collaborations, and types of reviews: blind, double blind, and open peer reviews.</li> <li>3. Convergence of research interests between reviewers and authors, conflict of interest.</li> <li>4. Electronic systems supporting the review process.</li> <li>5. Reviewing preprints.</li> <li>6. Stages and principles for creating reviews of scientific papers.</li> </ol>	

<b>COURSE TITLE</b>	<b>Dissertation seminar 1 - 4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows national and international academic achievements related to the doctoral dissertation topic.
	<b>Skills</b>
SD_U02	The student can critically analyze and refer to scientific literature.
SD_U01	The student can develop a dissertation concept, situate the research problem within a theoretical and empirical context, and select appropriate bibliographic references.
SD_U01	The student can design and conduct innovative research and scientific analyses, as well as interpret the results obtained.
SD_U06	The student is able to initiate debate and participate in scientific discussion.
	<b>Social competencies</b>
SD_K07	The student is ready to conduct independent research contributing to existing academic knowledge.
SD_K01	The student is ready to critically assess achievements within a given scientific discipline.
SD_K02	The student is ready to critically evaluate their own contribution to the development of a particular scientific discipline.
SD_K03	The student is ready to recognize the importance of knowledge in solving cognitive and practical problems.
SD_K04	The student is prepared to take on professional and public challenges, taking into account their ethical dimension, accepting responsibility for their outcomes, and shaping proper behavior patterns.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	



Doctoral students publicly present the progress of their dissertation, taking into account the following points:

1. Defining the dissertation topics.
2. Developing the concept.
3. Preparing the theoretical part of the dissertation.

For empirical studies:

4. Preparing the research program and methodology.
5. Designing the analysis framework for results.
6. Conducting research.
7. Analyzing results.
8. Interpreting results.

Discussion involving doctoral candidates, supervisors, and present attendees.

<b>COURSE TITLE</b>	<b>University as an organization and educational institution</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student has an in-depth knowledge of the historical origins of the university, its contemporary models, and operational contexts.
	<b>Skills</b>
SD_U02	The student can conduct a comparative analysis of various organizational models of the university and understands their implications for academic practice.
	<b>Social competencies</b>
SD_K04	The student is ready to fulfill the social obligations of researchers.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
1. University as an organization: structure and decision-making centers, key processes, areas of activity, cooperation networks, and operational context (relations with the state, market, and civil society). 2. University as an educational institution: academic teacher (legal regulations, typical responsibilities), educational programs, planning, and organization, educational quality and ways to ensure it.	

COURSE TITLE	Techniques of scientific ideas exchange
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W04	The student knows how to exchange ideas in academia and the principles for their use.
	<b>Skills</b>
SD_U04	The student can organize and conduct the exchange of ideas in academia using a variety of methods and is proficient in networking.
SD_U06	The student is able to initiate debate.
SD_U08	The student can speak a foreign language at the B2 level according to the Common European Framework of Reference for Languages to the extent necessary to participate in international scientific and professional environments.
SD_U07	The student can participate in scientific discourse.
SD_U09	The student can plan and implement individual and team research or creative projects, including in an international setting.
	<b>Social competencies</b>
SD_K07	The student is ready to respect the principle of public ownership of research results, taking into account the principles of intellectual property protection.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Problem-based methods: situational, brainstorming.</li> <li>2. Exercise and practice methods: case study, SWOT analysis.</li> <li>3. Discussion methods: panel, Oxford, round table.</li> <li>4. Networking.</li> <li>5. Platforms for academic exchange of ideas.</li> <li>6. Academic social media.</li> </ol>	

<b>COURSE TITLE</b>	<b>Information technology in research work</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W03	The student knows data analysis software and has knowledge of available datasets.
	<b>Skills</b>
SD_U01	The student is skilled in using online research platforms, operating online research collaboration platforms, and finding datasets for analysis.
	<b>Social competencies</b>
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<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Quantitative data analysis software.</li> <li>2. Qualitative data analysis software.</li> <li>3. Other analysis software.</li> <li>4. Software for analyzing big data sets and concepts for big data analysis.</li> <li>5. Online research collaboration platforms.</li> </ol>	

<b>COURSE TITLE</b>	<b>Trends in social science 1 - 4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows national and international academic achievements on selected issues in social sciences.
SD_W05	The student knows and understands the fundamental dilemmas of modern civilization.
	<b>Skills</b>
SD_U02	The student has the ability to critically analyze presented content and is prepared to engage in debate.
	<b>Social competencies</b>
SD_K01	The student is ready to critically assess achievements within a given scientific discipline.
SD_K03	The student is ready to recognize the importance of knowledge in solving cognitive and practical problems.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Meetings with scientists and practitioners from various disciplines, including psychologists, sociologists, and educators.</li> <li>2. Presentation of current directions in research development in the aforementioned fields.</li> <li>3. Workshop on a topic proposed by a guest speaker.</li> </ol>	

<b>COURSE TITLE</b>	<b>Tutoring with PhD supervisor 1 - 4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows national and international academic achievements related to the doctoral dissertation topic.
SD_W01	The student knows the requirements imposed on the author of Individual Research Plan.
	<b>Skills</b>
SD_U02	The student can present and critically analyze scientific literature and lead discussions based on it.
SD_U01	The student can design and conduct innovative research and interpret the results obtained.
	<b>Social competencies</b>
SD_K07	The student designs and conducts research activities independently and responsibly, taking into account their ethical aspects.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
Continuous collaboration with the supervisor(s) and assistant supervisor (if appointed) through individual meetings dedicated to discussing progress in preparing the doctoral dissertation, which includes: discussing the scientific literature related to the research topic, working on the Individual Research Plan, the course of research activities, developing research material and conclusions, preparing the final form of the doctoral dissertation.	

<b>COURSE TITLE</b>	<b>Construction of measures</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W03	The student knows the stages of the research process.
SD_W03	The student knows the principles of preparing research tools.
	<b>Skills</b>
SD_U01	The student can apply their knowledge of methodology and research methods in practice.
SD_U01	The student can design a research process.
SD_U01	The student can prepare and optimize research tools.
	<b>Social competencies</b>
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<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Development of research tools: types and categories of research tools.</li> <li>2. Basic rules for creating research tools for qualitative and quantitative research.</li> <li>3. Designing research tools: <ul style="list-style-type: none"> <li>- theoretical concept of the tool;</li> <li>- creating test items;</li> <li>- the most common mistakes in tool development.</li> </ul> </li> <li>4. Analysis of psychometric properties of the tool.</li> </ol>	

<b>COURSE TITLE</b>	<b>Data visualization and interpretation</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W03	The student knows the principles of data interpretation.
SD_W03	The student knows the most common mistakes made in the process of data interpretation.
SD_W03	The student knows various solutions for data visualization.
	<b>Skills</b>
SD_U01	The student is skilled in data interpretation.
SD_U01	The student can present research data in a clear and visually appealing manner.
	<b>Social competencies</b>
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<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
1. Data interpretation: <ul style="list-style-type: none"> <li>- principles of data interpretation,</li> <li>- the most common mistakes in data interpretation.</li> </ul> 2. Data visualization: <ul style="list-style-type: none"> <li>- data visualization methods,</li> <li>- data visualization tools;</li> <li>- applications of various visualization methods.</li> </ul>	



<b>COURSE TITLE</b>	<b>Intellectual property and commercialization of research results</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W07	The student knows and understands the basic principles of knowledge transfer to the economic and social spheres and the commercialization of research results and associated know-how.
	<b>Skills</b>
SD_U03	The student can transfer research results to the economic and social spheres.
	<b>Social competencies</b>
SD_K03	The student is ready to recognize the importance of knowledge in solving cognitive and practical problems.
SD_K05	The student is ready to initiate action for the public interest.
SD_K06	The student can think and act resourcefully.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Protection of intellectual property. Modern threats to intellectual property.</li> <li>2. Commercialization of research results in light of the Act 2.0 and university regulations</li> <li>3. Good practices – examples of how to use research results from various scientific disciplines, including social sciences, in practice.</li> </ol>	

<b>COURSE TITLE</b>	<b>Interactive lectures with outstanding researchers 1 - 4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows national and international academic achievements on selected issues in social sciences.
SD_W02	The student knows the development directions of disciplines studied by the invited scientists.
SD_W05	The student knows and understands the fundamental dilemmas of modern civilization.
	<b>Skills</b>
SD_U02	The student has the ability to critically analyze presented content and is prepared to engage in debate.
	<b>Social competencies</b>
SD_K01	The student is ready to critically assess achievements within a given scientific discipline.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<p>During the classes, the invited scientists first present their ongoing research, including key areas of development in their respective disciplines. The second part is workshop-oriented, focusing on research methodology and/or another scientific issue proposed by the invited researcher.</p>	

<b>COURSE TITLE</b>	<b>Visiting professor lecture and seminar 1 - 4</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows national and international academic achievements on selected issues in social sciences.
SD_W02	The student knows the development directions of disciplines studied by the invited scientists.
	<b>Skills</b>
SD_U08	The student can speak a foreign language at the B2 level according to the Common European Framework of Reference for Languages to the extent necessary to participate in international scientific and professional environments.
	<b>Social competencies</b>
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<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
During the classes, the invited scientists (from outside Poland) first present their ongoing research, including key areas of development in their respective disciplines. The classes also provide an opportunity to develop skills in understanding and communicating in academic English.	

<b>COURSE TITLE</b>	<b>Advanced quantitative data analysis</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W03	The student has knowledge of advanced quantitative data analysis.
	<b>Skills</b>
SD_U01	The student can perform data analysis using advanced quantitative data analysis techniques.
	<b>Social competencies</b>
SD_K03	The student is ready to recognize the importance of knowledge in solving data analysis problems.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Analysis of variance (ANOVA) – a reminder.</li> <li>2. Multiple regression.</li> <li>3. Methods for analyzing moderators (moderation) in regression analysis.</li> <li>4. Mediation analysis in regression analysis.</li> <li>5. Exploratory factor analysis (EFA).</li> <li>6. Introduction to structural modeling: philosophy, model fit measures, software.</li> <li>7. Confirmatory factor analysis (CFA).</li> <li>8. Structural modeling.</li> </ol>	

<b>COURSE TITLE</b>	<b>Advanced qualitative data analysis</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W03	The student has knowledge of advanced qualitative data analysis.
	<b>Skills</b>
SD_U01	The student can perform data analysis using advanced qualitative data analysis techniques.
	<b>Social competencies</b>
SD_K03	The student is ready to recognize the importance of knowledge in solving data analysis problems.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Selected and emerging trends in qualitative research.</li> <li>2. Desk research and analysis of data from various types of qualitative research.</li> <li>3. The role of computer software in qualitative data analysis – examples of usage.</li> <li>4. Inference in qualitative research.</li> <li>5. Preparation and presentation of analysis results.</li> </ol>	

<b>COURSE TITLE</b>	<b>Project management</b>
	<b>LEARNING OUTCOMES</b>
Reference to learning outcomes achieved at the Doctoral School (symbol of the outcome)	<b>Knowledge</b>
SD_W01	The student knows the principles of project development and management; recognizes project phases; can identify risks in a project; knows how to choose appropriate software supporting project management.
	<b>Skills</b>
SD_U09	The student knows how to choose the appropriate way to manage a project and work in a project team.
SD_U09	The student can analyze the project environment to identify risks.
SD_U09	The student can prepare proper project documentation.
	<b>Social competencies</b>
SD_K06	The student can think and act resourcefully.
<b>COURSE CONTENT/ORGANIZATION OF CONTENT</b>	
<ol style="list-style-type: none"> <li>1. Project and its management – basic concepts. Definition and characteristics of a project. Project as a set of documents. Project life cycle. Project management processes. Defining project success.</li> <li>2. Project planning. Defining project goals. Identifying potential problems. Independently managing mini-projects.</li> <li>3. Budget control. Project settlement.</li> <li>4. Project time management. Dividing the project into tasks. Scheduling.</li> <li>5. Commercial and free computer programs supporting project management.</li> </ol>	