A COURSE SYLLABUS – DOCTORAL SCHOOL
REGARDING THE QUALIFICATION CYCLE FROM 2022TO 2026

GENERAL INFORMATION ABOUT COURSE	
Course title	**Doctoral laboratory**
Name of the unit running the course	Doctoral School at University of Rzeszów
Type of course *(obligatory, optional)*	Obligatory
Year and semester of studies	I-IV year/I-VIII semester
Discipline	Health Sciences
Language of Course	Polish
Name of Course coordinator	Hab. Agnieszka Guzik, Assistant professor
Name of Course lecturer	Hab. Agnieszka Guzik, Assistant professor
Prerequisites	Before starting the course, the doctoral school student has the knowledge, skills and competencies from the completed level 7 of the Polish Qualification Framework.

BRIEF DESCRIPTION OF COURSE (100-200 words)
The doctoral dissertation is aimed at preparing the doctoral student to plan and conduct scientific research, equipping the doctoral student with skills and competencies to apply specialized methodology related to the research work performed, enabling the preparation of the doctoral dissertation.

COURSE LEARNING OUTCOMES AND METHODS OF EVALUATING LEARNING OUTCOMES				
Learning outcome	The description of the learning outcome defined for the course	Relation to the degree programme outcomes (symbol)	Learning Format (Lectures, classes,…)	Method of assessment of learning outcomes (e.g. test, oral exam, written exam, project,…)
Knowledge (no.)	**(Knows and understands)**			
1.	To the extent that it is possible to revise existing paradigms - world achievements, including theoretical foundations and general issues and selected specific issues - relevant to the scientific discipline of health sciences health sciences.	P8S_WG1	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, preparation of the draft for the doctoral dissertation, discussion - semesters I and II
2.	Directions of development and recent discoveries in the scientific discipline of health sciences , current scientific achievements, including worldwide, in research in the area of the discipline of health science and related disciplines.	P8S_WG2	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, preparation of the draft for the doctoral dissertation, discussion - semesters I and II
3.	The conceptual grid of the discipline of health science and related disciplines, including in the leading foreign language for it.	P8S_WG3	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, preparation of the draft for the doctoral

				dissertation, discussion - semesters I and II
4.	The methodology of scientific research, including the principles of planning research and its implementation using interdisciplinary techniques and research tools.	P8S_WG4	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, defining the research method for the doctoral dissertation, discussion - semesters I and II
Skills (no.)	(Able to)			
1.	Use interdisciplinary knowledge to creatively identify and innovatively solve complex problems or perform tasks of a research nature, and in particular: - define the purpose and object of scientific research, formulate a research hypothesis, - develop methods, techniques and research tools and creatively apply them, - make conclusions based on scientific research.	P8S_UW1	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, drafting the research-related part of the doctoral dissertation, preparation of the research project, preparation of publications, activity related to conferences -semester II-VIII
2.	Use the scientific literature to identify and solve research problems and those related to related to innovation activities, As well as use the appropriate workshop to create new elements of this body of work.	P8S_UW2	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, drafting the research-related part of the doctoral dissertation, preparation of the research project, preparation of publications, activity related to conferences -semester II-VIII
3.	Perform critical analysis and evaluate the results of scientific research, expert activities and assess their contribution to the development of knowledge.	P8S_UW3	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, drafting the research-related part of

				the doctoral dissertation, preparation of the research project, preparation of publications, activity related to conferences -semester II-VIII
Social competence (no.)	**(Ready to)**			
1.	Critically evaluate the achievements within the discipline of health sciences health sciences and related disciplines.	P8S_KK1	Laboratory classes / Tutorials	Monitoring of the doctoral student's work, activity related to conferences – semesters II-VII

LEARNING FORMAT – NUMBER OF HOURS

Semester (no.)	Lectures	Seminars	Lab classes	Internships	others	ECTS
I-VIII	-	-	8 x 30 hrs. – 240 hrs.	-	-	24

METHODS OF INSTRUCTION

Methods based on observation, method of literature analysis and review, conducting research, discussion, individual work.

COURSE CONTENT

Curriculum content implemented in semesters I through VIII:

Critical analysis of scientific research results.
Use of scientific literature to identify and solve research problems.
Development of detailed assumptions of a research project.
Preparation for independent work in planning and conducting scientific research.
Determining the minimum sample size.
Deepening the ability to select appropriate research techniques, methods and tools.
Conducting qualification of participants for the study.
Conducting randomization.
Conducting pilot studies.
Conducting the study proper.
Preparing the database.
Analyzing the obtained research results.
Verification of hypotheses.
Preparation for dissemination of research results.
Preparation of scientific publications.
The final result of the work is the preparation of a doctoral dissertation.

COURSE ASSESSMENT CRITERIA

Credit with a grade after each semester on the basis of completion of a specific practical work, presentation of detailed assumptions of the research project, partial reports on the conducted research, database, analysis of the results of own research. Evaluation of the doctoral student's progress in activities related to the realization of

the learning outcomes planned in the syllabus for the course, i.e. documents confirming various forms of scientific activity (including abstracts, certificates of participation in conferences, publications).

Possible semester grades are: 2.0, 3.0, 3.5, 4.0, 4.5, 5.0.

TOTAL PhD STUDENT WORKLOAD REQUIRED TO ACHIEVE THE INTENDED LEARNING OUTCOMES
– NUMBER OF HOURS AND ECTS CREDITS

Activity	Number of hours
Scheduled course contact hours	240 hrs. (30 hours in each semester for 4 years)
Other contact hours involving the teacher (consultation hours, examinations)	16 hrs. (2 hours in each semester for 4 years)
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	464 hrs. (40 hours in each semester for 4 years)
Total number of hours	720 hrs
Total number of ECTS credits	24

INSTRUCTIONAL MATERIALS

Compulsory literature:	1. Radomski D., Grzanka A. Methodology of scientific research in medicine. Poznan, Scientific Publishing House of the Medical University, 2011. 2. Dwiliński L.: Fundamentals of scientific research. Oficyna Wydawnicza Politechniki Warszawskiej, Warsaw, 2009.
Complementary literature:	1. Boncler M., Różalski M., Watala C. Research and publications in biomedical sciences Volume 1, Alfa-Medica Press 2011. 2. Boncler M., Watala C., Różalski M. Research and publications in biomedical sciences Volume 2, Alfa-Medica Press 2011 3. Jedrychowski W.: Principles of planning and conducting scientific research. Jagiellonian University Publishing House, Krakow 2004.

*(1 ECTS CREDIT CORRESPONDS TO 25 - 30 HOURS OF THE TOTAL WORKLOAD OF A DOCTORAL STUDENT, NEEDED TO ACHIEVE THE ESTABLISHED EFFECTS).

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Date and signature of the Course lecturer

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Approved by the Head of the Department or an authorised person