A COURSE SYLLABUS – DOCTORAL SCHOOL

REGARDING THE QUALIFICATION CYCLE FROM 2025/2026 TO 2028/2029

GENERAL INFORMATION ABOUT COURSE	
Course title	**DOCTORAL SEMINAR**
Name of the unit running the course	Rzeszów University Doctoral School
Type of course *(obligatory, optional)*	compulsory subject
Year and semester of studies	years I-IV, semesters: I-VII
Discipline	**Medical sciences**
Language of Course	Polish/English
Name of Course coordinator	**Prof. Adam Reich, MD, PhD**
Name of Course instructor	**Prof. Adam Reich, MD, PhD**
Prerequisites	Academic education at master's degree level or advanced education at higher education level. Knowledge of English enabling fluent reading of scientific texts and conducting scientific discussions. Knowledge, skills and social competences at level 7 of the Polish Qualifications Framework.

BRIEF DESCRIPTION OF COURSE
(100-200 words)

The aim of the doctoral seminar is to prepare doctoral students to plan and carry out a research project, which will then form the basis for the preparation of a doctoral dissertation on the basis of which the doctoral student will apply for a doctoral degree in medical sciences and health sciences, in the scientific discipline of medical sciences. As part of the course, doctoral students will acquire knowledge, skills and social competences in the following areas:

1. Preparing a literature review in a subject area relevant to the planned research project.
2. Formulating a research hypothesis, on the basis of which a research project will be prepared.
3. Planning a research project aimed at verifying the assumed research hypothesis.
4. Basic statistical analyses, including determining the size of the research group necessary to reliably verify the research hypothesis.
5. Preparing the necessary documentation that will allow scientific research to be conducted.
6. Processing the research results obtained, including preparing tabular summaries
7. and graphical representations of the results.
8. Preparing a paper for publication describing the research results obtained in the course of experimental work.
9. Preparation and submission of a doctoral dissertation, including the necessary documentation.

During the course, doctoral students develop skills in critical analysis of scientific publications, formulation of research problems and hypotheses, and selection of appropriate research methods, techniques and tools. The doctoral seminar enables the systematic presentation of progress in the doctoral dissertation, discussions on research results, and the preparation of scientific publications and conference presentations. It also contributes to the development of communication and ethical skills, which play an important role in research work.

COURSE LEARNING OUTCOMES AND METHODS OF EVALUATING LEARNING OUTCOMES

Learning outcome	The description of the learning outcome defined for the course	Reference to learning outcomes for qualifications at Level 8 of the Polish Qualification Framework (PRK) (symbol)	Learning Format (Lectures, classes,...)	Method of assessment of learning outcomes (e.g. test, oral exam, written exam, project,...)

Knowledge: (no.)	***knows and understands***			
P8S_WG1	He has extensive theoretical knowledge, supported by laboratory research in the field of immune dysfunction, the pathogenesis of prurigo nodularis and other inflammatory dermatoses accompanied by itching. He is familiar with the current scientific achievements, including global ones, in the field of his education in the scientific discipline of medical sciences in the area of immune dysfunction, the pathogenesis of prurigo nodularis and other inflammatory dermatoses, and is also familiar with general issues in the field of research interests. medical sciences in the field of immune dysfunction, the pathogenesis of prurigo nodularis and other inflammatory dermatoses, and is also familiar with general issues in related research disciplines to a degree that allows him to confirm or refute existing views.	**P8S_WG**	seminar	oral presentation, discussion
P8S_WG2	Knows the directions of scientific research in the discipline: medical sciences in the field of immune dysfunction, the pathogenesis of prurigo nodularis and other inflammatory dermatoses accompanied by itching, as well as the latest discoveries, including global ones, in the discipline in which the education takes place.	**P8S_WG**	seminar	oral presentation, discussion
P8S_WG3	Knows, understands and is able to use concepts used by scientists and specialists in the field of scientific research in medical sciences and related disciplines in their native language and in a foreign language that is leading in the discipline.	**P8S_WG**	seminar	oral presentation, discussion
Skills: (no.)	***is able to***			
P8S_UW1	Based on their knowledge in various fields of science, they are able to identify and solve scientific research problems, define objectives, formulate hypotheses and research topics, select, apply and improve research techniques, methods and tools, and draw conclusions based on the results of scientific research.	**P8S_UW**	seminar	oral presentation, discussion
P8S_UW2	They are able to select and use available scientific publications to diagnose and solve research problems and innovative activities in their scientific work, as well as apply the	**P8S_UW**	seminar	oral presentation, discussion

	appropriate tools to create new elements of scientific output.			
P8S_UW3	They are able to select and use available Is able to formulate opinions, including critical judgements, using their interdisciplinary knowledge, and is able to analyse and evaluate the results of scientific research, expert work and other scientific studies.	**P8S_UW**	seminar	oral presentation, discussion, written assignments
P8S_UK6	Is able to publicly present the results of scientific research and actively participate in discussions on scientific, social and professional topics in an international environment, using a foreign language at level B2 of the Common European Framework of Reference for Languages.	**P8S_UK**	seminar	oral presentation,
Social competence: (no.)	***is ready to***			
P8S_KK1	Is prepared to critically evaluate achievements within the scientific discipline of medical sciences and to critically evaluate the contribution of their own research activities to the scientific development of the discipline in which they are studying.	**P8S_KK**	seminar	oral presentation, discussion,
P8S_KK3	Thanks to their extensive knowledge, is ready to solve various cognitive and practical problems.	**P8S_KK**	seminar	oral presentation, discussion, written assignments

LEARNING FORMAT – NUMBER OF HOURS

Semester (no.)	Lectures	Seminars	Lab classes	Placements	other	ECTS
I - VII	-	**7 x 8 hrs. - 56 hrs.**	-	-	**7 x 7 hrs. - 49 hrs.**	**7 x 2 ECTS – 14 ECTS**

METHODS OF INSTRUCTION

- ACADEMIC DISCUSSION,
- STUDY OF ACADEMIC LITERATURE,
- MULTIMEDIA PRESENTATION,
- PREPARATION AND PRESENTATION OF RESEARCH OBJECTIVES, RESEARCH METHODS, RESEARCH RESULTS,
- FINAL PROJECTS,
- PROGRESS IN THE PREPARATION OF A DOCTORAL DISSERTATION

COURSE CONTENT

Curriculum content covered during semesters: I to VII.

1. The seminar covers issues related to the implementation of research topics in the field of medical sciences.
2. Analysis of available scientific literature in the area of research interests.
3. Determination of the topic of the doctoral dissertation, subject, and objectives of own research.
4. Designing own research: objectives, hypotheses, research group.
5. Research methodology (research methods, techniques and tools).
6. Substantive preparation for the practical conduct of scientific research.

7. Conducting a pilot study. Discussion of the results of the pilot study.
8. Statistical methods used in scientific research.
9. Conducting the actual research.
10. Compiling the research results.
11. Discussion of the research results in the context of the literature on the subject.
12. Interpretation of the research results and formulation of final conclusions.
13. Verification of research hypotheses.
14. Detailed analysis based on the collected data.
15. Preparation of a scientific publication – structure and standards.
16. Formulation of conclusions resulting from the dissertation.
17. Editing of the doctoral dissertation – methodological and results sections.
18. Citing and editing the literature.
19. Final interpretation of research results.
20. Practical implications of research results and prospects for further research directions.
21. Preparation for the defence of the doctoral dissertation.
22. Evaluation of the doctoral dissertation in the anti-plagiarism system.

COURSE ASSESSMENT CRITERIA

The assessment covers the doctoral student's continuous work in each semester and academic year in the following areas: conducting research, expanding knowledge, studying literature, commitment and progress in preparing the doctoral dissertation.

The course ends after each semester of implementation:

pass – pass,
fail – fail.

The following percentage of points obtained is used to assess the course:

- up to 60% - fail - the doctoral student is not making progress in scientific research, is not expanding their knowledge, is not studying the literature, is not participating in substantive discussions, is not fulfilling their scientific obligations;

- 61% - 100% - pass - the doctoral student is making progress in scientific research, expanding their knowledge, studying basic and supplementary literature, participating in substantive discussions, fulfilling all scientific duties

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

Activity	Number of hours
Scheduled course contact hours	**7 x 15 hrs. – 105 hrs.**
Other contact hours involving the instructor (duty hours, examinations)	**10**
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	**305**
Total number of hours	**420**

Total number of ECTS credits	**7 x 2 ECTS – 14 ECTS**
INSTRUCTIONAL MATERIALS	
Compulsory literature:	Medical databases (PubMed, Scopus, Web of Science).
Complementary literature:	Literature related to the topic of the doctoral thesis

***(1 ECTS POINT CORRESPONDS TO 25–30 HOURS OF TOTAL WORK BY THE DOCTORAL STUDENT REQUIRED TO ACHIEVE THE INTENDED RESULTS)**

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Date and signature of the Course instructor

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Approved by the Head of the Department or an authorised person