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	**Health Sciences**
Language of Course	Polish/English
Name of Course coordinator	**Dr Anna Bartosiewicz, Professor at the University of Rzeszów**
Name of Course instructor	**Dr Anna Bartosiewicz, Professor at the University of Rzeszów**
Prerequisites	Academic education at master's degree level. Knowledge, skills and social competences at level 7 of the Polish Qualifications Framework. Foreign language proficiency at level B2.

BRIEF DESCRIPTION OF COURSE
(100-200 words)

The aim of the doctoral seminar is to develop the competences necessary for doctoral students to conduct independent research in the field of Health Sciences. The classes are focused on developing the ability to identify and precisely formulate research problems, construct research hypotheses, and plan and conduct scientific research in accordance with the principles of research methodology and ethics. The seminar supports the development of skills in the critical analysis of scientific literature, interpretation of research results, and scientific reasoning characteristic of health sciences. An important element of the course is the improvement of skills in preparing scientific publications and communicating research results in the academic community.
The classes are conducted in the form of individual consultations, during which research concepts, problems and hypotheses are discussed, and the texts being prepared for publication and the subsequent stages of the doctoral dissertation are analysed. Participation in the seminar prepares doctoral students to conduct research independently and disseminate their results in the form of scientific publications.

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	Possesses extensive theoretical knowledge, supported by research experience and is familiar with current scientific achievements, including global ones, in the	**P8S_WG**	seminar	oral questioning, discussion

	field of Health Sciences, as well as general issues in related disciplines and research topics, to an extent that allows them to confirm or refute existing paradigms.			
P8S_WG2	They are familiar with the directions of scientific research in the scientific discipline of Health Sciences and the latest discoveries, including global ones, in the discipline in which the education takes place.	**P8S_WG**	seminar	oral questioning, discussion
P8S_WG3	Knows, understands and is able to apply concepts used by scientists and specialists in the discipline of Health Sciences in their native language and in a foreign language that is leading in the discipline.	**P8S_WG**	seminar	oral response
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 the objective, formulate a hypothesis and the subject of scientific research, select and improve research techniques, methods and tools, and draw conclusions based on the results of scientific research.	**P8S_UW**	seminar	oral presentation, discussion, written assignments
P8S_UW2	Is able to select and use available scientific literature to diagnose and solve research problems and innovative activities in their research work, as well as apply the appropriate tools to create new elements of scientific output.	**P8S_UW**	seminar	oral presentation, discussion, written assignments
P8S_UW3	Using their interdisciplinary knowledge to analyse and evaluate the results of scientific research, expert reports and other scientific studies, they are able to formulate opinions, including critical judgements.	**P8S_UW**	seminar	oral presentation, discussion, written assignments
P8S_UK6	They are able to communicate publicly to present scientific research results and participate in discussions on scientific, social and professional topics in an international environment, also using a foreign language at level B2 of the Common European Framework of Reference for Languages.	**P8S_UK**	seminar	oral presentation, discussion, written assignments
Social competence: (no.)	***is ready to***			
P8S_KK1	Is prepared to critically evaluate achievements in the scientific discipline of Health Sciences and to critically evaluate the contribution of their own research results to	**P8S_KK**	seminar	oral presentation, discussion,

	the scientific development of the discipline in which they are studying.			written assignments
P8S_KK3	Thanks to their extensive knowledge, solves 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 15 godz. -105 godz.**	**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

Semester I
Analysis of current scientific literature in the field of planned research.
Identification and selection of research interests based on literature analysis.
Reviewing papers, citing and editing literature.

Semester II
Establishing a research plan and doctoral thesis topic.
Formulation of research objectives and hypotheses, agreement on the research design and methodology.
Preparation of a complete application to the bioethics committee.

Semester III
Critical evaluation of research methods and techniques.
Selection of the study group (recruitment of study participants).
Organisation of research.

Semester IV
Continuation of relevant scientific research, including the implementation of planned measurements.
Preparation of a series of lectures.
Preparation for presenting results at conferences.

Semester V
Continuation of relevant research.
Preliminary analysis of results.
Statistical analysis of the research results obtained.

Semester VI
Preparation of results and their discussion.
Preparation of a manuscript/publication in Polish and English.
Data management plan, rules for placing data in repositories.

Semester VII

Preparation for correspondence with the editorial board of a scientific journal and editing responses to reviewers' comments.

Preparation of scientific publications and/or doctoral dissertation, text formatting and evaluation in an anti-plagiarism system.

Multimedia presentation, preparation for the defence of the doctoral dissertation.

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.

Requirements:

The following percentage of points obtained is used in the assessment of the course:

- up to 60% - fail - the doctoral student does not make progress in scientific research, does not expand their knowledge, does not study the literature, does not participate in substantive discussions, does not fulfil 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 obligations.

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)	**6**
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	**309**
Total number of hours	**420**
Total number of ECTS credits	**7 x 2 ECTS – 14 ECTS**

INSTRUCTIONAL MATERIALS

Compulsory literature:	Naukowe Bazy Medyczne (PubMed, Scopus, Web of Science). Petrie A, Sabin C. Medical statistics at a glance. John Wiley & Sons; 2013 Nov 8.

	Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030. WHO, Geneva. https://www.who.int/teams/noncommunicable-diseases/governance/roadmap Davis JF, Van Rooijen SJ, Grimmett C, West MA, Campbell AM, Awasthi R, Slooter GD, Grocott MP, Carli F, Jack S. From theory to practice: an international approach to establishing prehabilitation programmes. Current anesthesiology reports. 2022 Mar;12(1):129-37. Minnella EM, Gillis C, Edgar L, Carli F. Prehabilitation. InEnhanced Recovery After Surgery: A Complete Guide to Optimizing Outcomes 2020 Mar 31 (pp. 89-99). Cham: Springer International Publishing. Abreu RM, Cairo B, Karsten M, Feiereisen P. Innovative approaches to exercise assessment and prescription in non-communicable diseases. Frontiers in Sports and Active Living. 2025 Jan 24;7:1560372. Zieliński J. Metodologia pracy naukowej. Oficyna wyd. ASPRA-JR 2019 (ibuk). Babbie E., Jasiewicz-Betkiewicz A. Badania społeczne w praktyce. PWN 2019. Michel, Jean-Pierre et al. WHO's report for the decade of healthy ageing 2021–30 sets the stage for globally comparable data on healthy ageing. The Lancet Healthy Longevity, Volume 2, Issue 3, e121 - e122
Complementary literature:	Dudziak A., Żejmo A.: Redagowanie prac dyplomowych: wskazówki metodyczne dla studentów. Difin, Warszawa 2008 Cabilan CJ, Hines S, Munday J. The impact of prehabilitation on postoperative functional status, healthcare utilization, pain, and quality of life: a systematic review. Orthopaedic Nursing. 2016 Jul 1;35(4):224-37.

***(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