A COURSE SYLLABUS – DOCTORAL SCHOOL

REGARDING THE QUALIFICATION CYCLE FROM YEAR 2022 TO YEAR 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/ semestr I-VIII
Discipline	Medical Sciences
Language of Course	Polish
Name of Course coordinator	Prof. dr hab. n. med. Dorota Darmochwał-Kolarz
Name of Course lecturer	Prof. dr hab. n. med. Dorota Darmochwał-Kolarz
Prerequisites	Completed full-time studies in medicine, possession of a medical degree.

BRIEF DESCRIPTION OF COURSE
(100-200 words)

Individual consultations in the form of regular, cyclical meetings with the supervisor.
- The classes are aimed at planning and defining the preparation of the dissertation from the methodological point of view, as well as discussing the perspective of further plans for scientific development.
- Information handling and effective use of technological information technology: principles of citation, literature selection.
- Discussion of how to conduct intensive obstetric surveillance in pregnancies complicated by intrauterine fetal growth deprivation.
- Assessment of growth potential in pregnancies observed for intrauterine fetal growth restriction.
- Analysis of the performance of Doppler ultrasound (vascular flows) in the assessment of intrauterine fetal status.
- Analysis of the performance and interpretation of cardiotocographic examination in the assessment of intrauterine fetal status.

Course aims and objectives:
- To evaluate the progress of the research work forming the basis of the doctoral dissertation:
- To develop detailed knowledge in the area of research forming the basis of the dissertation.
- To develop the general knowledge of doctoral students in the discipline of medicine and medical biology.
- Teaching practice - oral presentation, evaluation of presentations by other doctoral students, participation in discussion, as speaker and listener.

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)**		Laboratories/ Colloquia	
1. P8S_WG	Has a broad theoretical knowledge and is familiar with global scientific developments in the discipline of medical sciences, to the extent that existing patterns can be verified.	**P8S_WG/1**	conversion workshop	Discussion, multimedia presentation
2. P8S_WG	Has current knowledge of ongoing research and recent discoveries in the discipline of medical sciences nationally and internationally.	**P8S_WG/2**	conversion workshop	Discussion, multimedia presentation
3. P8S_WG	Knows and uses specialised medical terminology in native and foreign languages.	**P8S_WG/3**	conversion workshop	Discussion, multimedia presentation
4. P8S_WG	Knows the methodology, principles of planning and conducting scientific research in the discipline of medical sciences, has a broad knowledge of tools and interdisciplinary research techniques.	**P8S_WG/4**	conversion workshop	Discussion, multimedia presentation
Skills	**(Able to)**			
1. **P8S_UW**	Possess broad interdisciplinary knowledge, which he/she can use to diagnose and solve a research problem, assume the aim and subject of scientific research, formulate a research hypothesis, apply innovative research methods and techniques and draw appropriate conclusions on the basis of the obtained results.	**P8S_UW/1**	conversion workshop	Discussion, multimedia presentation

2. **P8S_UW**	Acquire the scientific literature necessary to identify and solve the research problems that have arisen and use it to create new elements of the research output.	**P8S_UW/2**	conversion workshop	Discussion, multimedia presentation
3. **P8S_UW**	Is able to analyse and evaluate and express critical judgements of disseminated scientific results, expert work and other research activities.	**P8S_UW/3**	conversion workshop	Discussion, multimedia presentation
Social competence (no.)	**(Ready to)**			
1. P8S_KK	Is willing to be critical of existing scientific output in the discipline of medical science and related disciplines.	**P8S_KK/1**	conversion workshop	Discussion, multimedia presentation

LEARNING FORMAT – NUMBER OF HOURS

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

METHODS OF INSTRUCTION

Panel discussion, multimedia presentation, own work, written report, oral presentations.

COURSE CONTENT

Dissertation workshop plan, carried out throughout the training cycle:

- The class aims to plan and define the preparation for the dissertation from a methodological point of view, as well as to discuss the perspective of further plans for scientific development.
- Information handling and effective use of technological information technology: principles of citation, literature selection.
- Discussion of how to conduct intensive obstetric surveillance in pregnancies complicated by intrauterine fetal growth deprivation.
- Assessment of growth potential in pregnancies observed for intrauterine fetal growth restriction.
- Analysis of the performance of Doppler ultrasound (vascular flows) in the assessment of intrauterine fetal status.
- Analysis of the performance and interpretation of cardiotocography in the assessment of intrauterine fetal status.

COURSE ASSESSMENT CRITERIA

A prerequisite for passing the course after each semester is active participation in the classes conducted within the framework of the doctoral laboratory consisting in asking questions and leading a substantive discussion concerning the presentation of the presented research results during the seminar.
The applicable grading scale, according to the syllabus: 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	**8 x 30 hrs. – 240 hrs.**
Other contact hours involving the teacher (consultation hours, examinations)	–
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	**480 hrs.**
Total number of hours	**720 hrs.**
Total number of ECTS credits*	**24**

INSTRUCTIONAL MATERIALS

Compulsory literature:	**1.** Kwiatkowski S, Torbe A, Borowski D i WSP. Polish Society of Gynecologists and Obstetricians Recommendations on diagnosis and management of fetal growth restriction. Ginekologia i Perinatologia Praktyczna 2020; 5(3): 119–130. **2.** Pietryga M, Borowski D, Brązert J, et al. Rekomendacje Sekcji Ultrasonografii Polskiego Towarzystwa Ginekologicznego w zaskresie przesiewowej diagnostyki ultrasonograficznej w ciąży o przebiegu - 2015r. Ginekol Pol. 2015; 86(7): 551–559. **3.** Ego A, Zeitlin J, Batailler P i wsp. Stillbirth classification in population-based data and role of fetal growth restriction: the example of RECODE. BMC Pregnancy Childbirth. 2013; 13: 182
Complementary literature:	**1.** Kajdy A, Modzelewski J, Jakubiak M, et al. Effect of antenatal detection of small-for-gestational-age newborns in a risk stratified retrospective cohort. PLoS One. 2019; 14(10): e0224553. **2.** Wojtyła A, Goździewska M, Paprzycki P, et al. Tobacco-related Foetal Origin of Adult Diseases Hypothesis--population studies in Poland. Ann Agric Environ Med. 2012; 19(1): 117–128.

*(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