Uniwersytet Medyczny im. Karola Marcinkowskiego w Poznaniu
Sylabus Przedmiotu

Medical education in practice

Wydział	Kierunek	Specjalność	Kod przedmiotu
Szkoła Doktorska	Doctoral School	-	NSDA/S/T/2/14

1. INFORMACJE OGÓLNE

Nazwa przedmiotu	Nazwa przedmotu nadrzędnego/modułu	Rok akademicki	Rok studiów
Medical education in practice	-	2026 / 2027	Drugi
Semestr	**Rok naboru**	**Profil kształcenia**	**Poziom studiów**
-	2025 / 2026	-	trzeciego stopnia
Tryb studiów	**Język wykładowy**	**Rodzaj przedmiotu**	**Koordynator przedmiotu**
Anglojęzyczne	angielski	Zajęcia obowiązkowe	Nowicki Michał, prof. dr hab. (p007616)
Koordynator przedmiotu nadrzędnego/modułu	**Osoba zaliczająca**	**Osoby prowadzące**	
-	Nowicki Michał, prof. dr hab. (p007616)		

2. CELE KSZTAŁCENIA. OGÓLNA CHARAKTERYSTYKA MODUŁU/PRZEDMIOTU

The aim of the course "Medical Education in Practice" is to prepare doctoral students to consciously, responsibly and reflectively undertake the role of an academic teacher in the fields of medical sciences, pharmaceutical sciences, health sciences and biomedical sciences. The course develops basic teaching competences needed by doctoral students as future academic teachers, members of research teams, disseminators of scientific knowledge and individuals supporting the development of others.

The course has a practical, seminar-based and workshop-oriented character. Its main assumption is that effective academic education is not limited to the transmission of content, but requires the intentional design of learning processes. Doctoral students learn how to plan classes or selected parts of classes, formulate learning outcomes, select appropriate teaching methods, initiate discussion, engage learners, provide constructive feedback and choose basic methods for verifying whether the intended learning outcomes have been achieved.

The course takes into account the interdisciplinary character of the Doctoral School at Poznan University of Medical Sciences. It is addressed to doctoral students representing various disciplines and educational backgrounds, including medicine, dentistry, pharmacy, biotechnology, biology, dietetics and other health-related sciences. Therefore, the content of the course is not limited to clinical teaching, but also includes seminar-based, laboratory-based, project-based, problem-based and research-oriented education.

Particular emphasis is placed on the ability to transform specialist scientific knowledge into a clear, structured and engaging educational message. Doctoral students analyse how to adapt content to the level and needs of learners, how to avoid excessive information overload, how to formulate problem-based questions and how to conduct classes in a way that promotes active participation, reflection and responsible learning.

An important element of the course is the development of the attitude of a responsible academic teacher. Medical, biomedical and health sciences education is understood as a form of disseminating scientific knowledge, transferring knowledge into social and professional practice, and maintaining the ethos of the academic community. In this context, the course addresses values essential for teaching and research practice, such as reliability, responsibility, respect, fairness, openness to debate, psychological safety, and readiness to give and receive feedback.

As a final outcome of the course, each doctoral student prepares a mini teaching project related to their own discipline, research area or doctoral dissertation topic. The project includes the topic of the class or selected part of a class, the target group, learning outcomes, proposed content, teaching methods, learner activities and methods for verifying the achievement of learning outcomes. The final meeting has a summative and reflective character and is devoted to discussing the prepared projects, providing feedback and reflecting on the doctoral student's further development as an academic teacher.

3. WYMAGANIA WSTĘPNE

The doctoral student should have basic knowledge in their own scientific discipline and a general understanding of the topic of their doctoral project or research area. The student is expected to be ready to actively participate in seminar-based and workshop-oriented classes, including discussion, individual and group work, and reflection on their own educational experiences.

No prior formal pedagogical training or previous teaching experience is required. However, experience as a participant in academic classes, seminars, laboratory sessions, research team meetings or scientific presentations will be useful as a point of reference for designing one's own mini teaching project.

The doctoral student should be prepared to develop a mini teaching project related to their own discipline, research area or doctoral dissertation topic.

4. TREŚCI PROGRAMOWE

TREŚCI PROGRAMOWE:

Course Content

Seminar 1. The doctoral student as an academic teacher in medical, biomedical and health sciences
Duration: 3 hours

The role of the doctoral student in academic education: researcher, teacher, tutor, team member and disseminator of scientific knowledge.
The specific nature of teaching and learning in an interdisciplinary environment: medicine, dentistry, pharmacy, biotechnology, biology, dietetics and health sciences.
The difference between transmitting knowledge and designing a learning process.
Education as a form of knowledge transfer and dissemination of scientific knowledge.
The responsibility of the academic teacher for the reliability of the message, psychological safety, quality of discussion and academic ethos.
Common challenges faced by beginning academic teachers: excessive amount of content, limited learner engagement, lack of adjustment to the learners' level, unclear assessment criteria.
Introduction to the final assignment: a mini teaching project related to a class or a selected part of a class.

Seminar 2. Designing classes: learning outcomes, content, methods and verification
Duration: 3 hours

Aims of classes and learning outcomes: differences, functions and common mistakes.
Formulating measurable learning outcomes in the areas of knowledge, skills and social competences.
Selecting content according to the learning outcomes, learners' level and available time.
Constructive alignment: learning outcome, learner activity, teaching method and method of verification.
Activating methods in medical and biomedical education: case analysis, problem-based seminar, moderated discussion, small group work, peer teaching, elements of problem-based learning and case-based learning, laboratory or clinical demonstration.
Designing learner activity: shifting from "What will the teacher say?" to "What will the learner do?".
Workshop work on the structure of the mini teaching project.

Seminar 3. Conducting classes, initiating discussion, feedback and basic principles of assessment
Duration: 3 hours

Communicating specialist content in a clear, structured and engaging way.
Initiating and moderating academic discussion: opening questions, problem-based questions, working with silence, engaging passive participants, responding to domination or confrontation in the group.
Participation in scientific and educational discourse: argumentation, referring to other participants' viewpoints and maintaining a culture of respectful disagreement.
Feedback and assessment: differences, purposes and consequences for learning.
Principles of constructive feedback: reference to observable behaviour, connection with learning outcomes, specificity, balance between strengths and areas for improvement, formulation of suggestions for further development.
Basic methods for verifying learning outcomes: checking questions, short written task, presentation, observation of task performance, rubric, checklist, self-assessment and peer assessment.
Exercise: providing feedback on a selected part of a teaching project.

Seminar 4. Mini teaching project: presentation, feedback and final reflection
Duration: 1 hour

Presentation or discussion of mini teaching projects prepared by doctoral students.
Analysis of project coherence: topic, target group, learning outcomes, content, teaching methods, learner activities, methods for verifying learning outcomes.
Feedback from the teacher and the group.
Final reflection: strengths of the project, elements requiring further development and the doctoral student's further development as an academic teacher.
Course completion.

5. OPIS ZAKŁADANYCH EFEKTÓW UCZENIA SIĘ

EFEKTY UCZENIA SIĘ - PO ZAKOŃCZENIU ZAJĘĆ STUDENT OSIĄGNIE W ZAKRESIE:	Numer standardu kształcenia lub kierunkowego efektu uczenia się	Odniesienie do charakterystyki drugiego stopnia Polskiej Ramy Kwalifikacji	Forma realizacji
WIEDZY			

EFEKTY UCZENIA SIĘ - PO ZAKOŃCZENIU ZAJĘĆ STUDENT OSIĄGNIE W ZAKRESIE:	Numer standardu kształcenia lub kierunkowego efektu uczenia się	Odniesienie do charakterystyki drugiego stopnia Polskiej Ramy Kwalifikacji	Forma realizacji
economic, legal and other important conditions of scientific activity The doctoral student knows and understands selected legal, organisational, ethical and quality-related conditions of teaching activity in a medical university, particularly those related to the responsibility of the academic teacher, protection of intellectual property, reliable use of sources, principles of assessment, safety of learners and quality assurance in education. The doctoral student understands that the design and delivery of academic classes should take into account not only substantive aims, but also applicable regulations, institutional standards and principles of academic ethos.	D.W06	P8S_WK	seminaria
to the extent enabling a revision of the existing paradigms – global achievements, comprising theoretical foundations, as well as general issues and selected specific issues – relevant for a scientific or artistic discipline The doctoral student knows and understands selected elements of the international body of knowledge in medical education, biomedical education and health professions education, including the transition from a transmission-based model of teaching to education focused on learning outcomes, competences, learner activity, feedback and assessment supporting development. The doctoral student understands the relevance of these concepts for designing classes and selected parts of classes in an interdisciplinary academic environment.	D.W01	P8S_WG	seminaria
main development trends of scientific or artistic disciplines a part of which the education is pursued The doctoral student knows and understands the main developmental trends in medical education, biomedical education and health professions education, particularly the shift towards outcome-based education, competence-based learning, learner engagement, interdisciplinarity, problem-based methods, feedback and assessment for learning. The doctoral student understands the importance of these trends for planning teaching activities in the diverse environment of the Doctoral School.	D.W02	P8S_WG	seminaria
scientific research methodology The doctoral student knows and understands the basic principles of methodical instructional design in medical education, biomedical education and health professions education, including the formulation of aims and learning outcomes, selection of content, teaching methods, learner activities and methods for verifying the achievement of intended learning outcomes. The doctoral student understands the importance of coherence between the aim of the class, the teaching method, learner activity and assessment of learning outcomes.	D.W03	P8S_WG	seminaria
rules for disseminating the scientific activity outcomes, also in the open-access mode The doctoral student knows and understands the principles of disseminating scientific knowledge in the context of medical education, biomedical education and health professions education, including the transformation of specialist scientific content into a clear, reliable and audience-appropriate educational message. The doctoral student understands the importance of open access, responsibility for the quality of transmitted knowledge, proper use of scientific sources and respect for intellectual property in academic teaching.	D.W04	P8S_WG	seminaria

EFEKTY UCZENIA SIĘ - PO ZAKOŃCZENIU ZAJĘĆ STUDENT OSIĄGNIE W ZAKRESIE:	Numer standardu kształcenia lub kierunkowego efektu uczenia się	Odniesienie do charakterystyki drugiego stopnia Polskiej Ramy Kwalifikacji	Forma realizacji
fundamental dilemmas of modern civilization The doctoral student knows and understands selected fundamental dilemmas of contemporary medical, biomedical and health sciences education, particularly those related to responsibility for the reliability of transmitted knowledge, counteracting misinformation, patient safety, equitable access to knowledge, the use of new technologies in teaching and the development of professional attitudes. The doctoral student understands the role of academic education in responsibly preparing future specialists, researchers and health professionals to function in a complex social, scientific and clinical environment.	D.W05	P8S_WK	seminaria
fundamental principles of knowledge transfer to the economic and social sphere and commercialisation of the scientific activity outcomes and know-how related to these outcomes The doctoral student knows and understands the basic principles of transferring scientific knowledge into educational, social and professional practice, particularly through the design of classes, preparation of educational materials, communication of research findings and adaptation of specialist content to the needs of different target groups. The doctoral student understands that medical, biomedical and health sciences education is one of the forms of knowledge transfer, influencing the competences of future professionals, the quality of professional practice, patient safety and the social use of research outcomes.	D.W07	P8S_WK	seminaria
UMIEJĘTNOŚCI			
exploit knowledge from various fields of science or art to creatively identify, formulate, and innovatively solve complex problems or perform research tasks, in particular: define the goal and subject of scientific research, phrase a research hypothesis, develop research methods, techniques and tools and use them creatively, draw conclusions based on the scientific research outcomes The doctoral student is able to use knowledge from their own scientific discipline as well as basic principles of medical, biomedical and health professions education to identify educational problems and design appropriate teaching solutions. The student is able to define the aim of a class or a selected part of a class, select content, methods and teaching tools appropriate to the learners' level, and plan how the achievement of intended learning outcomes will be verified.	D.U01	P8S_UW	seminaria
critically analyse and evaluate the scientific research outcomes, expert activities and other creative works, as well as their contribution to the knowledge development The doctoral student is able to critically analyse and evaluate a teaching project, educational material or teaching solution used in medical, biomedical and health professions education. The student is able to assess the coherence between aims, learning outcomes, content, teaching methods, learner activities and methods for verifying the achievement of learning outcomes, as well as identify strengths and elements requiring modification.	D.U02	P8S_UW	seminaria
participate in a scientific discourse The doctoral student is able to participate in scientific and educational discourse related to medical, biomedical and health professions education. The student is able to justify their own teaching decisions, respond to the arguments of other participants, formulate problem-based questions and provide constructive feedback on teaching projects, teaching methods and methods for verifying learning outcomes.	D.U07	P8S_UK	seminaria

EFEKTY UCZENIA SIĘ - PO ZAKOŃCZENIU ZAJĘĆ STUDENT OSIĄGNIE W ZAKRESIE:	Numer standardu kształcenia lub kierunkowego efektu uczenia się	Odniesienie do charakterystyki drugiego stopnia Polskiej Ramy Kwalifikacji	Forma realizacji
plan classes or groups of classes and deliver them using modern methods and tools The doctoral student is able to plan a class or a selected part of a class in the area of their own scientific discipline, defining the target group, topic, aim, learning outcomes, content, teaching methods, learner activities and methods for verifying the achievement of learning outcomes. The student is able to select teaching methods and tools appropriate to the learners' level, the nature of the content and the intended learning outcomes, including activating methods, discussion, case analysis, group work, feedback and selected digital tools supporting the learning process.	D.U11	P8S_UU	seminaria
KOMPETENCJI			
fulfil social obligations of researchers and creators The doctoral student is ready to fulfil the social responsibilities of a researcher and academic teacher by communicating scientific knowledge in a reliable, responsible and understandable manner, adapting educational content to the needs of the audience, counteracting misinformation and supporting the development of students and other learners. The student understands that academic education in medical, biomedical and health sciences is a form of social responsibility, as it influences the quality of future professional practice, patient safety, scientific culture and the social use of research outcomes.	D.K04	P8S_KO	seminaria
recognise the importance of knowledge in solving cognitive and practical problems The doctoral student is ready to recognise the importance of scientific, educational and expert knowledge in solving problems related to designing, conducting and improving academic classes. The student understands that effective teaching in medical, biomedical and health sciences should be based on reliable sources, critical analysis of content, appropriate selection of teaching methods and reflection on the needs of learners.	D.K03	P8S_KK	seminaria
maintain and develop the ethos of research and creative communities, including: independently conduct scientific activities, respect the principle of public ownership to the scientific activity outcomes, taking into account the principles of intellectual property protection The doctoral student is ready to maintain and develop the ethos of the academic community in teaching activities, particularly through reliable communication of scientific knowledge, responsible use of sources, respect for intellectual property, ethical preparation of educational materials, constructive feedback and adherence to the principles of academic culture in relations with learners and other participants of the educational process.	D.K07	P8S_KR	seminaria

6. WERYFIKACJA EFEKTÓW UCZENIA SIĘ

WERYFIKACJA EFEKTÓW UCZENIA SIĘ		
sposób oceny efektów uczenia się	**metoda oceny efektów uczenia się**	**symbole standardów kształcenia/efektów uczenia się**
zaliczenie	Odpowiedź pisemna	D.K07, D.K04, D.K03, D.U11
zadanie	Odpowiedź ustna	D.U11, D.U07, D.U01, D.W07, D.W06, D.W05, D.W04, D.W03, D.W02, D.W01
zadanie	Odpowiedź pisemna	D.U02

7. NAKŁAD PRACY STUDENTA

ECTS			ŁĄCZNA LICZBA GODZIN	LICZBA GODZIN SAMODZIELNEJ PRACY STUDENTA	ZAJĘCIA			
						seminaria		
ECTS	w tym ECTS zajęć z wykorzystaniem metod i technik kształcenia na odległość	w tym ECTS zajęć z bezpośrednim udziałem nauczycieli/ prowadzących zajęcia			łączna liczba godzin zajęć	łączna liczba godzin s.	w tym online	w tym e-learning
0.00	0.00	0.00	10	0	10	10	0	0
METODY DYDAKTYCZNE					prelekcja (Metody podające), dyskusje (Metody aktywizujące), ćwiczenia praktyczne (Metody praktyczne)			

8. KRYTERIA OCENY

Assessment Criteria

The course ends with credit with a grade. The final grade is based on the doctoral student's active participation in seminars, preparation of a mini teaching project, participation in the discussion of teaching projects, provision and reception of constructive feedback, and a short final reflection on their development as an academic teacher.

To obtain credit, the doctoral student is required to:

actively participate in seminar and workshop activities, including discussions, group work, analysis of teaching examples and feedback exercises;
prepare a mini teaching project related to their own scientific discipline, research area or doctoral dissertation topic;
participate in the discussion of mini teaching projects, including giving and receiving constructive feedback;
prepare a short final reflection concerning their further development as an academic teacher.

The mini teaching project should include at least:

the topic of the class or selected part of a class;
the target group;
the aim of the class;
2–3 learning outcomes;
the key content;
proposed teaching methods;
learner activities;
methods for verifying the achievement of learning outcomes;
the planned way of providing feedback to learners.
Assessment Criteria for the Mini Teaching Project

The mini teaching project is assessed according to the following criteria: (1) Coherence of the teaching project (Logical connection between the topic, aim, learning outcomes, content, teaching methods, learner activities and methods for verifying learning outcomes); (2) Appropriateness for the target group (Adjustment of content, language, teaching methods and tasks to the assumed level and needs of learners); (3) Quality of learning outcomes (Clarity, specificity and verifiability of the proposed learning outcomes); (4) Selection of teaching methods (Relevance of the selected teaching methods to the intended learning outcomes, content and planned learner activity); (5) Verification of learning outcomes (Adequacy of the proposed method for checking whether the intended learning outcomes have been achieved); (6) Substantive reliability and responsible use of scientific knowledge (Accuracy of content, use of reliable sources and respect for intellectual property); (7) Reflection on the role of an academic teacher (Ability to identify the strengths of one's own project, areas requiring improvement and further development needs in academic teaching).

Grading Scale

Very good
The doctoral student prepares a highly coherent, well-structured and realistic mini teaching project. The learning outcomes are clearly formulated and verifiable, the teaching methods are well matched to the aims and target group, and the method for verifying learning outcomes is appropriate and feasible. The student actively participates in seminar discussions, provides constructive feedback to others and demonstrates a mature reflection on their development as an academic teacher.

Good
The doctoral student prepares a correct mini teaching project containing all required elements. The project is generally coherent, and the selected teaching methods and verification methods are appropriate, although some elements may require further clarification or refinement. The student participates in discussions and workshop activities and is able to provide basic constructive feedback.

Satisfactory
The doctoral student prepares a mini teaching project containing the basic required elements, but the project requires significant improvement, for example in the formulation of learning outcomes, selection of teaching methods or verification of learning outcomes. The student's participation in seminars is limited but sufficient to demonstrate achievement of the basic course outcomes.

Fail / no credit
The doctoral student does not prepare the mini teaching project, does not participate in its discussion, does not take part in seminar and workshop activities to an extent that allows verification of the intended learning outcomes, or fails to demonstrate achievement of the basic course outcomes.

9. LITERATURA PODSTAWOWA

1. Dent J.A., Harden R.M., Hunt D. (red.) **A Practical Guide for Medical Teachers** , Elsevier, 2024.

10. LITERATURA UZUPEŁNIAJĄCA

1. Biggs J., Tang C **Teaching for Quality Learning at University** , Open University Press, 2024.

11. KOŁA NAUKOWE

1. Studenckie Koło Naukowe Edukacji Medycznej

12. UWAGI KOŃCOWE

Adres jednostki realizującej przedmiot: ul. Rokietnicka 7, 60-806 Poznań