



Research Methodology and Ethics

1. IMPRINT	
Academic Year	2024/2025
Department	Faculty of Medicine and dentistry
Field of study	English Dentistry Division
Main scientific discipline	Medical sciences
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full-time program
Type of module / course	Obligatory
Form of verification of learning outcomes	Completion
Educational Unit / Educational Units	Department of Education and Research in Health Sciences, Faculty of Health Sciences, Litewska 14/16, 00-581 Warsaw nzd@wum.edu.pl tel. (+48 22) 57 20 490
Head of Educational Unit / Heads of Educational Units	Prof. Joanna Gotlib joanna.gotlib@wum.edu.pl
Course coordinator	Mariusz Panczyk, PhD, Assoc. Prof. mariusz.panczyk@wum.edu.pl
Person responsible for syllabus	Mariusz Panczyk, PhD, Assoc. Prof. mariusz.panczyk@wum.edu.pl
Teachers	Mariusz Panczyk, PhD, Assoc. Prof. mariusz.panczyk@wum.edu.pl Mariusz Jaworski, PhD, Assoc. Prof. mariusz.jaworski@wum.edu.pl

2. BASIC INFORMATION			
Year and semester of studies	3th year, 6th semester	Number of ECTS credits	1.00
FORMS OF CLASSES		Number of hours	ECTS credits calculation
Contacting hours with academic teacher			
Lecture (L)		2	0.08
Seminar (S)		8	0.32
Discussions (D)			
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
Unassisted student's work			
Preparation for classes and completions			

3. COURSE OBJECTIVES	
O1	Familiarising with <i>Good Research Practice</i> in terms of regulations stemming from the Singapore Declaration
O2	Familiarising with general guidelines for dissemination of research result

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING	
Code and number of effect of learning in accordance with standards of learning	Effects in time
Knowledge – Graduate* knows and understands:	
D.W12.	principles of altruism and clinical responsibility
D.W15.	patient's rights

G.W27.	principles of medical ethics and deontology, ethical problems of modern medicine resulting from the dynamic development of biomedical science and technologies, as well as the principles of ethical conduct of a dentist
Skills– Graduate* is able to:	
D.U11.	follow ethical patterns in professional activities
D.U12.	respect patient's rights
D.U16.	critically analyze medical literature, including in English, and draw conclusion
G.U25.	explain and apply the standards contained in the Code of Medical Ethics and international standards of medical ethics

* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

5. ADDITIONAL EFFECTS OF LEARNING	
Number of effect of learning	Effects of learning i time
Knowledge – Graduate knows and understands:	
K1	basic concepts of research methodology
Skills– Graduate is able to:	
S1	formulates research problems related to his/her work
Social Competencies – Graduate is ready for:	
SC1	-

6. CLASSES		
Form of class	Class contents	Effects of Learning
Lecture	Discussion of basic rules of research integrity pertaining to: research data; research procedures; results publishing; publication authorship; reviewing; scientific collaboration; conflict of interest; the most common forms of misconduct including how to deal with them. The lecture will focus on clinical research. The lecture is conducted synchronously on the MS Teams platform.	D.W12. D.W15. G.W27. D.U11. D.U12. G.U25.
Seminar	1. Introduction to research methodology: Defining the research area, research methodology and tools used. Presenting the main principles of credibility of research and the assumptions of appropriate methodology and research in medicine. 2-3. Discussing issues related to good practices of planning and conducting clinical research Selection of adequate research method/ measuring technique, impact of various factors on observational error, sampling and its significance, types of clinical research and their profile.	D.U16 K1 S1

	<p>4. Presenting the principles of EBM and critical analysis of scientific literature with regard to methodology applied</p> <p>Classification of clinical research and their design, as well as advantages and disadvantages of particular research strategies applied in biomedical research. The fundamentals of EBM (<i>Evidence-based medicine</i>), that is clinical behaviour based on best possible scientific evidence coming from clinical research.</p> <p>The seminars are conducted using the e-learning method.</p>	
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7. LITERATURE

Obligatory

1. The European Code of Conduct for Research Integrity (by European Science Foundation and ALLEA – All European Academies).
2. Euser AM, Zoccali C, Jager KJ, Dekker FW. Cohort studies: prospective versus retrospective. *Nephron Clin Pract.* 2009; 113(3): c214-7: <https://www.karger.com/Article/FullText/235241>
3. Song JW, Chung KC. Observational studies: cohort and case-control studies. *Plast Reconstr Surg.* 2010;126(6):2234-2242. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2998589/>
4. Setia MS. Methodology Series Module 3: Cross-sectional Studies. *Indian J Dermatol.* 2016;61(3):261-264. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4885177/>
5. CASP Appraisal Checklists: <https://casp-uk.net/casp-tools-checklists/>

Supplementary

Beyari MM, Strain D, Li CS, Lamfon HA. Conflict of interest reporting in dentistry meta-analyses: A systematic review. *J Clin Exp Dent.* 2014;6(3):e280-e285. Published 2014 Jul 1. doi:10.4317/jced.51225: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4134859/>

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
K1 S1 D.U11. D.U12. D.U16 G.U25. D.W12. D.W15. G.W27.	Preparation of a research project on a selected topic related to health sciences, dentistry or oral health.	Obtaining at least 51% of points.

9. ADDITIONAL INFORMATION

Participation in lectures and seminars is obligatory. The student has the right to three terms for passing the course.

ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers