



## Research Methodology and Ethics

### 1. IMPRINT

<b>Academic Year</b>	2021/22
<b>Department</b>	English Dentistry Division
<b>Field of study</b>	Dentistry
<b>Main scientific discipline</b> <i>(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>	Medical science
<b>Study Profile</b> <i>(general academic / practical)</i>	General academic
<b>Level of studies</b> <i>(1<sup>st</sup> level / 2<sup>nd</sup> level / uniform MSc)</i>	Uniform MSc
<b>Form of studies</b>	Full time
<b>Type of module / course</b> <i>(obligatory / non-compulsory)</i>	Obligatory
<b>Form of verification of learning outcomes</b> <i>(exam / completion)</i>	Completion
<b>Educational Unit / Educational Units</b> <i>(and address / addresses of unit / units)</i>	<b>Department of Education and Research in Health Sciences, Faculty of Health Sciences, Żwirki i Wigury 81, 02-091 Warsaw</b> <a href="mailto:zakladdydaktyki@wum.edu.pl">zakladdydaktyki@wum.edu.pl</a> tel. 22 57 20 490

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<p><b>Head of Educational Unit / Heads of Educational Units</b></p>	<p>Prof. Joanna Gotlib  <a href="mailto:joanna.gotlib@wum.edu.pl">joanna.gotlib@wum.edu.pl</a>  Radosław Zagożdżon, MD, PhD  <a href="mailto:radoslaw.zagozdzon@wum.edu.pl">radoslaw.zagozdzon@wum.edu.pl</a></p>
<p><b>Course coordinator</b> (title, First Name, Last Name, contact)</p>	<p>Prof. Joanna Gotlib  <a href="mailto:joanna.gotlib@wum.edu.pl">joanna.gotlib@wum.edu.pl</a></p>
<p><b>Person responsible for syllabus</b> (First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)</p>	<p>Mariusz Panczyk, PhD, Assoc. Prof.  <a href="mailto:mariusz.panczyk@wum.edu.pl">mariusz.panczyk@wum.edu.pl</a></p>
<p><b>Teachers</b></p>	<p>Mariusz Panczyk, PhD, Assoc. Prof.  <a href="mailto:mariusz.panczyk@wum.edu.pl">mariusz.panczyk@wum.edu.pl</a>  Mariusz Jaworski, PhD  <a href="mailto:mariusz.jaworski@wum.edu.pl">mariusz.jaworski@wum.edu.pl</a>  Prof. Andrzej Górski  <a href="mailto:andrzej.gorski@wum.edu.pl">andrzej.gorski@wum.edu.pl</a>  Jan Borysowski, MD, PhD  <a href="mailto:jan.borysowski@wum.edu.pl">jan.borysowski@wum.edu.pl</a></p>

2. BASIC INFORMATION			
<b>Year and semester of studies</b>	III year, semester IV	<b>Number of ECTS credits</b>	1.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		2	0.08
Seminar (S)			
Discussions (D)			
e-learning (e-L)		8 (seminar)	0.32
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		12	0.60

<b>3. COURSE OBJECTIVES</b>	
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

<b>4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING</b> <i>(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)</i>	
<b>Code and number of effect of learning in accordance with standards of learning</b> <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>	<b>Effects in time</b>

**Knowledge – Graduate\* knows and understands:**

D.W12.	principles of altruism and clinical responsibility
D.W15.	patient's rights
G.W27.	principles of ethics and medical deontology, ethical problems of modern medicine resulting from the dynamic development of biomedical science and technologies, as well as principles of ethical conduct of a dentist

**Skills– Graduate\* is able to:**

D.U11.	follow ethical standards in professional activities
D.U12.	respect patient's rights
D.U16.	critically analyse medical literature, including English literature, and draw conclusions
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.

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

SC1	-
SC2	-

6. CLASSES		
Form of class	Class contents	Effects of Learning
Lecture	<b>Discussion of basic rules of research integrity pertaining to:</b> 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.	D.W12. D.W15. G.W27. D.U11. D.U12. G.U25.
On-line course	<p><b>1. Introduction to research methodology:</b> 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.</p> <p><b>2-3. Discussing issues related to good practices of planning and conducting clinical research</b> 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.</p> <p><b>4. Presenting the principles of EBM and critical analysis of scientific literature with regard to methodology applied</b> 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>	D.U16 K1 S1

7. LITERATURE
<b>Obligatory</b>
<ol style="list-style-type: none"> <li>The European Code of Conduct for Research Integrity (by European Science Foundation and ALLEA – All European Academies).</li> <li>Euser AM, Zoccali C, Jager KJ, Dekker FW. Cohort studies: prospective versus retrospective. <i>Nephron Clin Pract.</i> 2009; 113(3): c214-7: <a href="https://www.karger.com/Article/FullText/235241">https://www.karger.com/Article/FullText/235241</a></li> <li>Song JW, Chung KC. Observational studies: cohort and case-control studies. <i>Plast Reconstr Surg.</i> 2010;126(6):2234-2242. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2998589/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2998589/</a></li> <li>Setia MS. Methodology Series Module 3: Cross-sectional Studies. <i>Indian J Dermatol.</i> 2016;61(3):261-264. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4885177/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4885177/</a></li> <li>CASP Appraisal Checklists: <a href="https://casp-uk.net/casp-tools-checklists/">https://casp-uk.net/casp-tools-checklists/</a></li> </ol>
<b>Supplementary</b>
<p>Beyari MM, Strain D, Li CS, Lamfon HA. Conflict of interest reporting in dentistry meta-analyses: A systematic review. <i>J Clin Exp Dent.</i> 2014;6(3):e280-e285. Published 2014 Jul 1. doi:10.4317/jced.51225: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4134859/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4134859/</a></p>

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
D.U16 K1 S1	Completion of the on-line course available on the university e-learning platform: <a href="https://e-learning.wum.edu.pl">https://e-learning.wum.edu.pl</a>	Obtaining at least 51% of the points when tested on the platform
D.W12. D.W15. G.W27. D.U11. D.U12. G.U25.	Presence during classes and discussion with the teacher.	-

## 9. ADDITIONAL INFORMATION *(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

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