

**FACULTY OF MEDICINE UNIVERSITY OF NIS**

**Study program: MEDICINE**

**Subject: PRINCIPLES AND ETHICS OF SCIENTIFIC RESEARCH**

**Semester: THIRD**

**Year of Study: SECOND**

**CURRICULUM- THEORETICAL LECTURES -FALL SEMESTER 2021/22.**

Week	Lecture topics	Professor	N° of classes weekly
1.	Introduction to the methodology of scientific research in biomedical sciences. Classification of science. Scientific research in medicine.	Prof. dr Gordana Kocić	1
2.	Methodology of scientific research in medicine. Scientific research process planning - work phases.	Prof. dr Gordana Kocić	1
3.	Use of scientific information in planning and preparation of scientific research. E-medicine - application and importance in science.	Prof. dr Gordana Kocić	1
4.	Informatics as a scientific discipline; the importance of primary, secondary and tertiary publications in the preparation of scientific research.	Prof. dr Tatjana Jevtović Stoimenov	1
5.	Ethical principles of use and storage of laboratory animals. Experimental models in dentistry. In vivo and in vitro experiments.	Doc. dr Andrej Veljković	1
6.	Techniques for obtaining tissue homogenates and subcellular particles (nuclei, mitochondria, microsomal fractions, cytosol) by differential ultracentrifugation methods. Methods of separation of cells and subcellular particles.	Doc. dr Andrej Veljković	1
7.	Methods of storage and preparation of materials for morphological examinations. Histochemical and immunochemical methods.	Doc. dr Vladimir Petrović	1
8.	Biomarkers. Use of human material in the realization of scientific research projects. Selection of a suitable sample: blood (serum, plasma, erythrocytes, leukocytes), saliva, urine.	Doc. dr Andrej Veljković	1
9.	Experimental models in nephrology.	Doc. dr Andrej Veljković	1
10.	Experimental models in neurology.	Prof. dr Ivana Stojanović	1
11.	Human genome project. Laboratory possibilities for testing hereditary diseases. The possibility of misuse of scientific knowledge.	Prof. dr Tatjana Jevtović Stoimenov	1
12.	PCR technique and testing of gene polymorphisms in medicine.	Prof. dr Tatjana Jevtović Stoimenov	1
13.	Clinical and general health research. Controlled clinical trials. Basic principles of voluntary consent of an informed patient in a clinical trial.	Prof. dr Jelena Vojinović	1
14.	Presenting the achieved results to the public. Writing a scientific work; original scientific work; monograph. Original scientific paper and review scientific paper.	Prof. dr Ivana Stojanović	1
15.	Ethics in scientific research. Academic integrity in science, errors in science: gray zone, hoaxes (plagiarism, false authorship, fabrication and falsification of results, autoplagerism).	Prof. dr Jelena Bašić	1