

THE BASICS OF NUMERICAL DATA ANALYSIS						
GENERAL INFORMATIONS						
Course coordinator	Assoc. Prof. Vesna Ilakovac, PhD					
Assistant/Associate	Kristina Kralik, MSc					
Study Programme	Integrated undergraduate and graduate university study of Medicine					
Status of the course	Elective					
Year of study, semester	5th year, 9th semester					
ECTS	2					
Workload (hours)	Lectures (10): Seminars (5); Exercises (10)					
Expected number of students	30					
COURSE DESCRIPTION						
Course objectives						
To enable students to properly select, independently use and interpret the results of statistical tests for the numerical data analysis.						
Enrolment requirements and entry competencies						
Passed the course of the 2 nd year of study Introduction to Medical Statistics or equivalent.						
Learning outcomes at the Programme level						
1.1., 2.2., 3.4., 3.5., 4.2.						
Learning outcomes (5-10)						
After listening to lectures, exercises, independent learning and passing the exam, students will be able to:						
1. Correctly interpret the P value obtained by statistical testing.						
2. Select the appropriate statistical test for the given problems of differences of the numerical data.						
3. Confirm the fulfillment of the preconditions for conducting the selected statistical test in the numerical data analysis.						
4. Interpret the results of the conducted data analysis.						
5. Select the appropriate presentation of the results of the conducted data analysis.						
Course content						
Lectures:						
P1. Introductory lecture.						
P2. Statistical tests.						
P3. One sample tests.						
P4. Comparison of measurements from two samples.						
P5. Comparison of measurements from three or more samples.						
Exercises:						
V1. Making a decision on a statistical hypothesis.						
V2. Data analysis software. One sample tests.						
V3. Comparison of measurements from two samples.						
V4. Comparison of measurements from three or more samples.						
V5. Reporting and interpretation of numerical data analysis results.						
Mode of teaching						
Lectures; Seminars<; Exercises						
Student obligations						
Attendance at all forms of classes is mandatory. A student may justifiably miss 30% of classes.						
Monitoring student work (Connectivity of learning outcomes, teaching methods and grading)						
Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Grade points	
					Min.	Max.

Class attendance	0.2	1 – 5	Class attendance	Class record	0	10
Practicals	1.2	1 – 5	Solving problems	Homework presentation	34	60
Final exam	0.6	1 – 5	Independent work	Written exam	16	30
Ukupno	2				50	100

Calculation of final grade:

To students who achieved 16 or more points in the final exam points earned during the course are added.

Since the study program schedule descriptive assessment of elective courses, the course leader awards the grade "passed" to a student who achieves 50 or more grade points in the course.

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
Ivanković D. et al. Osnove statističke analize za medicinare. Udžbenik. Biblioteka Udžbenici i priručnici Medicinskog fakulteta Sveučilišta u Zagrebu, 1988.	10	
Teaching materials of the course leader		Merlin e-learning system

Additional reading

1. Petz B. Osnovne statističke metode za nematematičare, 5. izdanje, Naklada Slap, Jastrebarsko 2004.
2. Lang T, Secic M. How To Report Statistics in Medicine: Annotated Guidelines for Authors, Editors, and Reviewers, 2nd edition. Philadelphia: American College of Physicians, 2006.
3. Daniel WW. Biostatistics: a foundation for analysis in the health sciences. Udžbenik. John Wiley& Sons, Inc. 2013.

Course evaluation procedures

Anonymous, quantitative, standardized student survey on the subject and work of teachers conducted by the Office for Quality of the Medical Faculty Osijek.

Note /Other

E-learning is not included in the norm of course hours, but is used in teaching and contains teaching materials of the course leader, links to various pages, video and audio materials available on the WWW.