Course description

Part 1

General information about the course	
1. Major of study: medicine	**2. Study level:** unified MSc **3. Form of study:** intramural
4. Year: I	**5. Semester**: according to the schedule
6. Course name: Biostatistics	
7. Course status: required	
8. Course objectives Basic informatic and biostatistics tool used in medicine, including databases, spreadsheets, basic statistical methods, rules for study group selection, formulation of research hypotheses, use of basic statistical programs, ability to critically analyse the literature, ability to work in team. **Learning outcomes / reference to learning outcomes indicated in** (underline as appropriate): education standards (Regulation of the Ministry of Science and Higher Education) / Resolution of the Senate of the Medical University of Silesia (indicate terms specified in education standards / signs of learning outcomes approved by the Resolution of the Senate of the Medical University of Silesia) For knowledge student knows and understands: B.W23, B.W24, B.W25 For skills student can do: B.U8, B.U9 For social competencies student is ready to: D.W19, D.U2, D.U4	

9. Number of hours for the course	**24**	**10. Number of ECTS points for the course**	**2**
11. Form of evaluation: credit			

12. Methods of verification and evaluation of learning outcomes		
Learning outcomes	**Methods of verification**	**Methods of evaluation*/ credit**
Knowledge	Written evaluation – open questions Grade credit – MCQ **Summary methods:** Written exam / test exam	*
Skills	Observation	*
Competencies	Observation	*

***** For exams and grade credits the following evaluation system has been assumed:

Very good (5,0) – the assumed learning outcomes have been achieved and significantly exceed the required level
Better than good (4,5) – the assumed learning outcomes have been achieved and slightly exceed the required level
Good (4,0) – the assumed learning outcomes have been achieved at the required level
Better than satisfactory (3,5) – the assumed learning outcomes have been achieved at the average required level
Satisfactory (3,0) – the assumed learning outcomes have been achieved at the minimum required level
Unsatisfactory (2,0) – the assumed learning outcomes have not been achieved

Course description

Part 2

Other useful information concerning the course		
13. Department conducting the course, address, e-mail address: Department of Epidemiology, 18 Medyków St., 40-752 Katowice, epikat@sum.edu.pl		
14. Course Coordinator: Professor Grzegorz Brożek, MD, PhD		
15. Prerequisites in terms of knowledge, skills and other competences: No requirements for prior skills and/or competencies		
16. Group size	In accordance with the SUM Senate Resolution	
17. Teaching materials	Presentation, recommended books	
18. Location of classes	18 Medyków St., 40-752 Katowice, Building d2, I floor, classroom 105 8b Medyków St., 40-752 Katowice, Center of Didactics and Medical Simulation, classroom 106	
19. Location and time of office hours	Building C3, IV floor, 9:00 – 12.00	
20. Learning outcomes		
Number of the course learning outcome	Course learning outcomes	Reference to the learning outcome included in the standards
In terms of knowledge:		
C_K01	Basic IT and biostatistical tools used in medicine	B.W23
C_K02	Basic statistical analysis methods used in population and diagnostics studies	B.W24
C_K03	The possibilities of modern telemedicine as a tool to support the work of a doctor	B.W25
In terms of skills:		
C_S01	Use databases, including online ones, and search for the information you need using available tools	B.U8
C_S02	Use medical databases and properly interpret the information contained therein information needed to solve problems in basic science and clinical	B.U9
In terms of social competencies:		
C_C01	Principles of evidence-based medicine	D.W19
C_C03	Recognize the ethical dimension of medical decisions and distinguish factual aspects from normative	D.U2
C_C04	Demonstrate responsibility for improving their qualifications and passing on knowledge to others	D.U4
21. Forms and subjects of classes		**Number of hours**
21.1. Lectures		**4**
Survival analysis		2
Multivariate Analysis		2
21.2. Seminars		**5**
Descriptive statistics		2
Statistical tests of difference		1

Statistical tests of association	1
Multivariate Analysis	1
21.3. Labs	**15**
Descriptive statistics	3
Statistical tests of difference	4
Statistical tests of association	4
Multivariate Analysis	4

22. Literature

Required literature:

A. Petrie, C. Sabin.: Medical statistics at a glance
B. P. Armitage, G Berry.: Statistical Methods in Medical Research

Supporting literature:

UCLA Statistics & Data Science https://stats.oarc.ucla.edu/sas/

23. Assessment criteria - details

Final test: Multiple Choice Questions