Appendix
to Resolution No. 2186
of Senate of Wroclaw Medical University
of 1 July 2020

Syllabus for academic year: 2020/2021 Training cycle: ……			
Description of the course			
Module/Course	Medical statistics	Group of detailed education results	
		Group code B	Group name Scientific basis of medicine
Faculty	Dentistry		
Major	Dentistry		
Unit realizing the subject	Biostatistics and Medical Informatics Unit of Department of Pathophysiology		
Specialties			
Level of studies	Uniform magister studies X* 1st degree studies □ 2nd degree studies □ 3rd degree studies □ postgraduate studies □		
Form of studies	X full-time X part-time		
Year of studies	I	Semester	□ Winter X Summer
Type of course	X obligatory □ limited choice □ free choice / elective		
Course	□ major X basic		
Language of instruction	□ Polish X English □ other		
* mark □ with an X			

Number of hours														
Form of education														
Unit teaching the course	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
Winter Semester														
Direct (contact) education														
Online learning (synchronous)														

Distance learning (asynchronous)														
Summer Semester														
Direct (contact) education						7								
Online learning (synchronous)						4								
Online learning (asynchronous)						4								
TOTAL per year:														
Direct (contact) education						7								
Online learning (synchronous)						4								
Online learning (asynchronous)						4								

Educational objectives (max. 6 items)
C1.
C2.
C3.

Education result matrix for module/course in relation to verification methods of the intended education result and the type of class

Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class ***enter the abbreviation*
W 01	**B.W26.**	student knows the basic computer and biostatistical methods used in medicine, medical database, worksheets and basis of computer graphics	Final computer test	LC
W 02	**B.W27.**	student knows the basic methods of statistical analysis used in the study population and diagnostic investigations	Oral response	LC
W 03	**B.W28.**	knows the capabilities of modern telemedicine as a tool to support the work of a doctor;	Oral response	LC

W 04	**B.W29.**	knows the rules of scientific research (observational and experimental)	Oral response	LC
U 01	**B.U10.**	student uses the databases, including the Internet, and searches for the required information using available tools	Final computer test	LC
U 02	**B.U11.**	student selects an appropriate statistical test, performs basic statistical analyzes and uses appropriate methods to present the results; interprets the results of meta-analyzes and assesses probability of survival	Final practical computer test with biostatistics analysis and medical interpretation of obtained results	LC
U 03	**B.U12.**	student explains the differences between prospective and retrospective studies, randomized and case-control, case descriptions and experimental researches; ranks them according to the reliability and quality of the scientific evidences	Oral resonse	LC
U 04	B.U13.	student plans and performs a simple scientific study; interprets the results and draws conclusions	Final practical computer test with biostatistics analysis and medical interpretation of obtained results	LC

** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .

Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes:
Knowledge: 2
Skills: 3
Social competences: 1

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Student's amount of work (balance of ECTS points)	
Student's workload (class participation, activity, preparation, etc.)	**Student Workload (h)**
1. Contact hours:	7
2. Online learning hours (e-learning):	8
3. Student's own work (self-study):	10
Total student's workload	25
ECTS points for module/course	1
Comments	

Content of classes (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

Lectures

1.
2.
3.

Seminars

1.
2.
3.

Practical classes

1. Basic statistical concepts and experimental systems used in medical research. Study of relationships.
2. Graphical presentation of relationships between two variables. Elements of epidemiology: relative risk, odds ratio, sensitivity and specificity of diagnostic tests.
3. Practical application of basic statistical tests in exemplary medical research- Chi-square test.
4. Practical application of basic statistical tests in exemplary medical tests- Student's t-test for independent and dependent samples.
5. Practical application of basic statistical tests in exemplary medical research- analysis of variance.
6. Use of linear regression and correlation coefficient in medical research.

Other

1.
2.
3.
etc. …

Basic literature (list according to importance, no more than 3 items)

1. B.R. Kirkwood, J.A. Sterne – Essential Medical Statistics, Blackwell Science 1988, 2003**Additional literature and other materials** (no more than 3 items)

1. B. Rosner – Fundamentals of Biostatistics, Duxbury Thomson Learning 2000

Didactic resources requirements (e.g. laboratory, multimedia projector, other…)

Computer laboratory, multimedia projector

Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Student should have the credit of the subject *Information Technology*
Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be med by the student to pass it and criteria for specific grades) Attendance during classes (according to the study regulations) and passing the final theoretical/practical test.

Grade:	**Criteria** (only for courses/modules ending with an examination)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	
	Criteria (only for courses/modules ending with e credit)
Credit	Attendance during classes (according to the study regulations), passing the final theoretical/practical test and returning homework (e-learning)

Grade:	**Criteria** (examination evaluation criteria)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	
Unit realizing the subject	Biostatistics and Medical Informatics Unit of Department of Pathophysiology
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Person responsible for module	Agnieszka Rusiecka
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List of persons conducting specific classes				
Full name	**Degree/scientific or professional title**	**Discipline**	**Performed profession**	**Form of classes**
Agnieszka Rusiecka	**PhD**	**physiology**	**assistant**	**Cclasses**

Date of Syllabus development

21.09.2020 r.

Syllabus developed by

Lesław Rusiecki

Signature of Head of teaching unit

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Signature of Faculty Dean

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