



TOTAL per year: 39												
	10		20								9	
<p>Educational objectives (max. 6 items)</p> <p>C1. To extend the students' knowledge on the physiology of the autonomic nervous system including the selected clinical aspects.</p> <p>C2. To familiarize students with basic and advanced methods for the assessment of the autonomic nervous system activity.</p>												
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 <i>**enter the abbreviation</i>								
W 01	B.W21.	knows the ways of communication between the cells, and between the cell and the extracellular matrix and the pathways of signal transduction inside the cell and the examples of disorders in these processes leading to the development of tumors and other diseases	oral response, solving problems using a group, presentation, report from the practical exercises;	SE, MC								
W 02	B.W24.	knows the basics of excitation and conduction in the nervous system and the higher brain functions, and also the physiology of smooth and striated muscle and the functions of the blood		SE, MC								
W 03	B.W25.	knows function and regulatory mechanisms of all the organs and systems of the human body, including: circulatory system, respiratory system, digestive system, urinary system, integumentary system and understands the relations existing between them		SE, MC								
W 04	B.W34.	knows the rules of the scientific research, observational and experimental studies and in vitro studies serving Medicine development		SE, MC								
U 01	B.U7.	describes changes in the body functioning in the case of homeostasis disruption, in particular, Student describes the body's integrated response to physical effort, exposure to high and low temperature, loss of blood or water, orthostatic stress, transition from sleep state to awake state	oral response, solving problems using a group, presentation, report from the practical exercises	SE, MC								
U 02	B.U8.	conducts simple functional tests assessing the human body as the regulated system (exercise stress tests); interprets quantitative data regarding basic physiological variables		SE, MC								
U 03	B.U11.	uses databases, including online databases, and searches for the needed information using the available tools		SE, MC								
U 04	B.U14.	designs and conducts simple scientific research, interprets the results and draws the conclusions		SE, MC								



K 01	cooperates in a group to complete the theoretical and practical exercises	solving problems using a group, presentation, report from the practical exercises	SE, MC
K 02	willingly participates in the discussion		SE, MC
<p>** 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 .</p>			
<p>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: 5 Skills: 4 Social Competencies: 3</p>			
Student's amount of work (balance of ECTS points)			
Student's workload (class participation, activity, preparation, etc.)		Student Workload (h)	
1. Contact hours:		30	
2. Student's own work (self-study):		9	
Total student's workload		39	
ECTS points for module/course		1.5	
Comments			
<p>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)</p>			
<p>Seminars</p> <p>1. and 2. Clinical aspects of the autonomic nervous system – Students' presentations.</p>			
<p>Practical classes</p> <p>1. Introduction to the autonomic nervous system physiology. 2. Heart rate variability analysis for a non-invasive assessment of the sympathovagal balance in the cardiovascular system. 3. Baroreflex sensitivity: measurement and clinical implications. 4. Central and peripheral chemoreflex sensitivity: measurement and clinical implications. 5. Sympathetic microneurography.</p>			
Other – not applicable			
<p>Basic literature (list according to importance, no more than 3 items)</p> <p>1. Guyton AC, Hall JE. Guyton and Hall Textbook of Medical Physiology. Ed. 11, Elsevier, 1116 pages. [selected chapters] 2. Primer on the Autonomic Nervous System. Robertson D, Biaggioni I, Burnstock G, Low PA, Paton JFR (ed.). ed. 3, Academic Press, 469 pages. [selected chapters, provided by the teacher]</p>			
<p>Additional literature and other materials (no more than 3 items)</p> <p>1. Selected publications from English-language journals. [provided by the teacher]</p>			
Didactic resources requirements (e.g. laboratory, multimedia projector, other...)			



Computer / notebook, multimedia projector, scientific-educational equipment and software (available at the Department of Physiology WMU)

Preliminary conditions (minimum requirements to be met by the student before starting the module/course)

Credit for the Physiology course (at least 1 semester)

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 met by the student to pass it and criteria for specific grades)

Attendance on classes (1 absence is allowed), participating in the discussion, preparing the reports from the practical exercises conducted on the classes, preparing the presentation on the selected topic and presenting it on the seminar.

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)	

Name and address of module/course teaching unit, contact: telephone and e-mail address

Department of Physiology, 10 Chałubińskiego Str., 50-368 Wrocław, Poland, tel.: 71 784 00 91, 71 784 14 22, 71 784 14 23, e-mail: wl-9@umed.wroc.pl

Coordinator / Person responsible for module/course, contact: telephone and e-mail address

Dr n. med. Bartłomiej Paleczny, tel.: 71 784 14 32, e-mail: bartlomiej.paleczny@umed.wroc.pl

List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.

Bartłomiej Paleczny, PhD in medical sciences, discipline medicine-physiology, adjunct at Department of Physiology WMU – classes (CN), seminars (SE)

Date of Syllabus development

19 June 2017

Syllabus developed by

Bartłomiej Paleczny

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu
KATEDRA I ZAKŁAD FIZJOLOGII
kierownik
prof. dr hab. Beata Ponikowska



Signature of Faculty Dean

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Wrocław Medical University
FACULTY OF MEDICINE
VICE-DEAN FOR STUDIES IN ENGLISH
Andrzej Hendrich
Prof. Andrzej Hendrich, PhD

