

Syllabus 2020/2021

Description of the course

Module/Course	Chemical Calculations	Group of detailed education results	
		Group code B	
Faculty	Medicine		
Major	medicine		
Specialties	Not applicable		
Level of studies	Uniform magister studies X * 1 st degree studies <input type="checkbox"/> 2 nd degree studies <input type="checkbox"/> 3 rd degree studies <input type="checkbox"/> postgraduate studies <input type="checkbox"/>		
Form of studies	X full-time <input type="checkbox"/> part-time		
Year of studies	1 st	Semester	<input type="checkbox"/> Winter X Summer
Type of course	<input type="checkbox"/> obligatory <input type="checkbox"/> limited choice X free choice / elective		
Course	<input type="checkbox"/> major <input type="checkbox"/> basic		
Language of instruction	<input type="checkbox"/> Polish X English <input type="checkbox"/> other		
* mark <input type="checkbox"/> with an X			

Amount 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 (ELC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
Winter Semester														
Summer Semester														
			10										3	
TOTAL per year:														
			10										3	
Educational objectives (max. 6 items)														
C1. Mastering the ability to perform chemical calculations														
C2. Mastering concentration conversion skills														

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>
K 01	B.W1 B.W2	He/she can calculate the concentrations of various substances (e.g. drugs) in aqueous solutions. Can calculate blood plasma pH and buffer capacity.	Individual evaluation of student's progress	AC
S 01	B.U3 B.U5	Calculates molar and percentage concentrations of compounds and concentrations of substances in aqueous solutions. Calculates pH and capacity of buffer	Individual evaluation of student's progress	AC

**** 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: 5

Skills: 5

Student's amount of work (balance of ECTS points)

Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
1. Contact hours:	10
2. Student's own work (self-study):	3
Total student's workload	13
ECTS points for module/course	0.5
Comments	

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:

Skills:

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

Not applicable

Seminars

Not applicable

Classes

- Units of measurement: mass, volume, density (conversion of units).
- Mol, element and chemical compound (calculation of molecular mass, molar concentration)
- Solutions. Calculating solutions concentration (percent composition by mass, percent composition by volume, percent composition by weight, molar concentration, using concentration to calculate mass or volume).
- Calculating the pH of solutions (strong and weak acids and bases).
- Calculating the pH of buffer and the buffer capacities (pH of blood).

Other

Not applicable	
Basic literature (list according to importance, no more than 3 items) 1. Chemistry. An Introduction to General, Organic and Biological Chemistry. Timberlake KC, Benjamin Cummings, Pearson Education, Inc., 2017	
Additional literature and other materials (no more than 3 items) 1. Handbook of chemistry: for students Faculty of Medicine and Faculty of Dentistry; ed. Iwona Kałtnik-Prastowska; Wrocław: Wrocław Medical University, 2012	
Didactic resources requirements (e.g. laboratory, multimedia projector, other...) multimedia projector, a white/black board	
Preliminary conditions Not applicable	
Conditions to receive credit for the course: Student is obligated to be present at 100% of classes and each absence must be made up, including rector's days or dean's hours. To receive credit for the course student is obligated to present the chosen topic on the group forum. Positive evaluation of theoretical and practical skills based on the individual student's work at the workshop.	
Grade:	Criteria
Very Good (5.0)	Active participation in the course, preparation of individual above average presentation for the rest of group
Above Good (4.5)	Active participation in the course, preparation of individual presentation for the rest of a group
Good (4.0)	Active participation in the course, preparation of presentation in a group
Sufficiently Good (3.5)	Active participation in the course
Sufficient (3.0)	Participation in the course

Name of unit teaching course:	Department of Chemistry and Immunochemistry
Address	M. Skłodowskiej-Curie 48, 50-369 Wrocław
Phone	+48 607-604-848
E-mail	immunochemia@umed.wroc.pl

Person responsible for course:	Dr hab. Mirosława Ferens-Sieczkowska, prof. nadzw.
Phone	+48 607-604-848
E-mail	mirosława.ferens-sieczkowska@umed.wroc.pl

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Jolanta Lis-Kuberka	dr	Medical Chemistry	scientist/ academic teacher	laboratory classes

Anna Kałuża	mgr	Medical Chemistry	scientist/ academic teacher	laboratory classes
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Date of Syllabus development

29.05.2020

Syllabus developed by

Anna Lemańska-Perek

Signature of Head of teaching unit


 Uniwersytet Medyczny we Wrocławiu
 KATEDRA ANATOMII CHEMII I FIZJOLOGII CHEMII
 Biologii

dr hab. Mirosława Ferenc-Sieczkowska, prof. nadzw.

Signature of Faculty Dean
Signature of Faculty Dean


 Wrocławski Uniwersytet Medyczny
 Faculty of Medicine
 Vice-Dean for English Studies
 prof. Beata Sobieszcańska, PhD