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## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/APV-DK +Z/22	<b>Course name:</b> Active presentation of results at a national conference with international participation
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Active presentation of results at a national conference with international participation. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By actively participating in a scientific conference, the doctoral student demonstrates a high level of knowledge and ability to identify, evaluate, correctly apply scientific knowledge and research methods. Demonstrates competence to use existing knowledge and generate new original scientific knowledge that he can critically analyse and communicate to a wider audience by adequate means (e.g. lecture, poster).	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 39	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/APV-MK/22	<b>Course name:</b> Active presentation of results at an international conference abroad
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Active presentation of results at an international conference abroad. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By actively participating in a scientific conference, the doctoral student demonstrates a high level of knowledge and ability to identify, evaluate, correctly apply scientific knowledge and research methods. Demonstrates competence to use existing knowledge and generate new original scientific knowledge that he can critically analyse and communicate to a wider audience by adequate means (e.g. lecture, poster).	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 33	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/APV-DK/22	<b>Course name:</b> Active presentation of results at the national conference
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Active presentation of results at the national conference. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By actively participating in a scientific conference, the doctoral student demonstrates a high level of knowledge and ability to identify, evaluate, correctly apply scientific knowledge and research methods. Demonstrates competence to use existing knowledge and generate new original scientific knowledge that he can critically analyse and communicate to a wider audience by adequate means (e.g. lecture, poster).	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 34	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/ AMB/22	<b>Course name:</b> Analytical Methods in Biochemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> seminars, practical exercises, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> Students will master the analytical methods used in laboratories with a focus on application in clinical-biochemical diagnostics both theoretically and practically. They can analyze biological material (eg body fluids) using laboratory analytical techniques (eg spectrophotometry, fluorescence analysis, chromatography, electrophoresis).	
<b>Brief outline of the course:</b> Laboratory techniques. Optical methods. Insulation techniques. Electrophoretic techniques. Physico-chemical methods of separation and detection of substances. Immunoanalytical methods. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Lottspeich F., Engels J.W.:Bioanalytics: Analytical Methods and Concepts in Biochemistry and Molecular Biology, Willey, 2019 Locatelli M, Celia Ch.:Analytical Chemistry, NOVA, 2017 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 8	
Ne	Pr
0.0	100.0

<b>Provides:</b> doc. Ing. Katarína Dubayová, PhD., doc. RNDr. Vladimíra Tomečková, PhD., univerzitná profesorka, prof. Ing. Mária Mareková, CSc.
<b>Date of last modification:</b> 17.02.2023
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/BNK/22	<b>Course name:</b> Analytical Methods in Biochemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> seminars, practical exercises, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/department/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/department/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The graduate masters the theoretical and practical foundations of laboratory methods used in the study of nucleic acids (NA) and knows the current possibilities of gene therapy. Students are aware of the latest trends in the study of RNA molecules, including non-coding RNAs, which are increasingly contributing to the improvement of laboratory diagnostics of pathological conditions at the molecular level. The graduate is oriented in the possibilities of using NA for diagnostic and prognostic purposes, as molecular methods are becoming an essential part in the study of biochemical processes and in clinical-biochemical diagnostics.	
<b>Brief outline of the course:</b> DNA replication. Transcription. Proteosynthesis. Regulation of gene expression. Non-coding RNA. Isolation of NK from biological material. Molecular-biochemical methods (eg PCR, sequencing, hybridization). Basics of genetic material analysis. Use of special analyzes. The latest trends in medical laboratory diagnostics. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/department/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/department/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Blanco G., Blanco A.: Medical Biochemistry, Academic Press, 2017 Waye M.M.Y.: Biochemistry and Molecular Biology, Nova Science Publishers Inc., 2015 Nussbaum R.L. et al.: Genetics in Medicine, Elsevier, 2015 Strachan T. et al.: Genetics and Genomics in Medicine, GS, 2014 Hunter B.D.: Molecular Genetics and Personalized Medicine, Humana Press Inc., 2014 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	



<b>Course assessment</b>	
Total number of assessed students: 9	
Ne	Pr
0.0	100.0
<b>Provides:</b> prof. Ing. Mária Mareková, CSc., doc. RNDr. Miroslava Rabajdová, PhD., univerzitná profesorka	
<b>Date of last modification:</b> 17.02.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/BV-VKd/22	<b>Course name:</b> Biochemistry of nutrition – selected chapters
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> seminars, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The graduate will gain knowledge and will understand of human nutrition, including the importance of nutrition in disease prevention. He knows the process of digestion and resorption of essential nutrients, the importance of ballast substances in nutrition and the nutritional value of food. Students will get acquainted with the basics of proper nutrition, the specifics of artificial nutrition and alternative forms of diet. Graduates know the influence of nutrition on the emergence of diseases of civilization and get acquainted with nutrigenomics.	
<b>Brief outline of the course:</b> Introduction to human nutrition. Digestion, resorption and metabolism of essential nutrients. Ballast substances in nutrition and their relation to the intestinal microbiome. Nutritional value of food. Healthy nutrition and its contribution to reducing the risk of disease. The influence of nutrition on the emergence of diseases of civilization. Specifics of artificial nutrition and alternative forms of diet. Technological food processing. Nutrigenomics. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Cox Ch.L.: Nutritional Biochemistry, CRC Press, 2015 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	

<b>Course assessment</b>	
Total number of assessed students: 1	
Ne	Pr
0.0	100.0
<b>Provides:</b> doc. Ing. Katarína Dubayová, PhD.	
<b>Date of last modification:</b> 17.02.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/G-DP/22	<b>Course name:</b> Co-solver of a national project (VEGA, KEGA, APVV ...)
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Co-solver of a national project (VEGA, KEGA, APVV ...). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> The doctoral student, as a co-investigator, participates in the solution of projects within the team cooperation, he is responsible for partial tasks in the solution of which he participates under the guidance of his supervisor.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 53	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/G-MP/22	<b>Course name:</b> Co-solver of an international project
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Co-solver of an international project. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> The doctoral student, as a co-investigator, participates in the solution of projects within the team cooperation, he is responsible for partial tasks in the solution of which he participates under the guidance of his supervisor.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 10	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/G-UPJS- SR/22	<b>Course name:</b> Co-solver of internal grant (VVGS)
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 3	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Co-solver of internal grant (VVGS). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> The doctoral student, as a co-investigator, participates in the solution of projects within the team cooperation, he is responsible for partial tasks in the solution of which he participates under the guidance of his supervisor.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 7	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/V-SVOC/22	<b>Course name:</b> Consultation of ŠVOČ
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 8	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> It concerns professional and consulting work in the management of students, by which the doctoral student demonstrates the ability to use and pass on the acquired scientific knowledge and skills acquired through studies in the relevant field of study / study program.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Medicine					
<b>Course ID:</b> Dek. LF UPJŠ/ODZ/05		<b>Course name:</b> Defence of Doctoral Thesis			
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present					
<b>Number of ECTS credits:</b> 20					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> III.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> All information about the doctoral study is specified on the faculty's website in the Doctoral Study section, including the conditions of completion, which are detailed in the State Examinations section. Students will find here all the necessary information, forms and documents, including information on the formal side of the dissertation, which are in accordance with Directive No. 1/2011 on the basic requirements of final theses and the PhD Study Regulations at UPJŠ in Košice. The submitted work must be in accordance with the Rector's Decision No. 5/2021, issuing the principles of good practice of scientific publication at UPJŠ in Košice and its parts, Rector's Decision No. 21/2021, on issuing rules for the assessment of plagiarism at UPJŠ in Košice and its parts, Rector's Decision No. 2/2022 which issues the principles of good research practice at UPJŠ in Košice and its parts.					
<b>Learning outcomes:</b> The dissertation has the character of a scientific work and the student demonstrates by this work extensive mastery of the theory and professional terminology from the field of study/study program, acquisition of knowledge, skills and competencies in accordance with the declared profile of the graduate, as well as the ability to apply them in an original way. The student demonstrates the ability of independent scientific work in terms of content, formal and ethical, and the ability to present and critically analyses obtained results.					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b> english, slovak					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 363					
N	NNe	NU	NeO	O	P
0.0	0.0	1.65	0.0	93.39	4.96



<b>Provides:</b>
<b>Date of last modification:</b> 23.03.2022
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/DZS/05	<b>Course name:</b> Dissertation examination
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> The condition for granting the dissertation examination is the completion of the study part in the prescribed composition of subjects and the acquisition of at least 90 credits in the external form, if the study in the four-year form and five-year in the external form. The committee decides on the result of the examination in a non-public meeting by a majority of the members present. In the event of equality of votes, the vote of the President shall prevail.	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 588	
N	P
0.17	99.83
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> CJP/LFAJD/05	<b>Course name:</b> English Language for PhD Students of Faculty of Medicine
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> completion of e-course English for PhD Students (lms.upjs.sk), consultations (1-3), written assignments - Professional/Academic CV, Short Academic Biography, test, Oral exam	
<b>Learning outcomes:</b> The development of students' language skills - reading, writing, listening, speaking; improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects; development of pragmatic competence - students acquire skills for effective and purposeful communication, with focus on Academic English and English for specific/professional purposes, level B2.	
<b>Brief outline of the course:</b> Specific aspects of academic and professional English with focus on vocabulary development (formality, academic word-list), English grammar (passive voice, nominalisation), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, writing Academic CV and short BIO, etc.). Cross-language interference. Academic communication (self-presentation, presenting at scientific meetings and conferences).	
<b>Recommended literature:</b> Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Tímková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. Štěpánek, L., J. De Haaf a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., 2011. Armer, T.: Cambridge English for Scientists. CUP, 2011.	
<b>Course language:</b> English language, level B2, C1 according to CEFR	
<b>Notes:</b>	

<b>Course assessment</b>	
Total number of assessed students: 389	
Ne	Pr
0.0	100.0
<b>Provides:</b> Mgr. Zuzana Kolaříková, PhD.	
<b>Date of last modification:</b> 11.09.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/ISL/22	<b>Course name:</b> Individual study of scientific literature
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> The evaluation is carried out by the supervisor based on knowledge of the Ph.D. presented on seminars at the department/clinic. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 86	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/AZSPn/22	<b>Course name:</b> Internship abroad - more than 30 days
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Internship abroad - more than 30 days. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Ph.D. student has to present specific results which bring benefits for preparation of dissertation thesis on seminar or an overview of the acquired methodological, professional knowledge.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 2	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/AZSPd/22	<b>Course name:</b> Internship abroad - of less than 30 days
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Internship abroad - of less than 30 days. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Ph.D. student has to present specific results which bring benefits for preparation of dissertation thesis on seminar or an overview of the acquired methodological, professional knowledge.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 14	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/ VMKB/22	<b>Course name:</b> Laboratory Diagnostic Methods in Clinical Biochemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b> ULCHBKB/LB/22	
<b>Conditions for course completion:</b> practical exercises, seminars, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The graduates will gain theoretical and practical knowledge about the correct collection and processing of biological material. They know the basic laboratory methods used in the analysis of biological samples. They will get acquainted with the work in the clinical-biochemical laboratory and the used instrumentation (including automation and control) and will be able to apply the results obtained by clinical-biochemical examination in the diagnosis of diseases.	
<b>Brief outline of the course:</b> Introduction to clinical biochemistry. Collection of biological material and interpretation of results (physiological and pathophysiological values). Basic laboratory parameters in emergency medicine. Diabetes mellitus. Biochemical examinations in liver diseases. Kidneys. Inflammatory markers. Cardiac markers. Blood count. Coagulation examinations. Bone metabolism - markers of bone metabolism. Specialized investigation procedures. Automation and robotization in clinical-biochemical diagnostics. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Shweta Pandey et al.: Protocols in Biochemistry and Clinical Biochemistry, 2020 Marshall W.: Clinical Biochemistry: Metabolic and Clinical Aspects, Elsevier, 2014 Swaminathan R.: Handbook of Clinical Biochemistry, World Scientific Publishing Co Pte, 2011 McPherson R.A., Pincus M.R.: Henry's Clinical Diagnosis and Management by Laboratory Methods, Elsevier, 2011 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	



<b>Course assessment</b>	
Total number of assessed students: 2	
Ne	Pr
0.0	100.0
<b>Provides:</b> MUDr. Eva Ďurovcová, PhD., prof. Ing. Mária Mareková, CSc., doc. RNDr. Miroslava Rabajdová, PhD., univerzitná profesorka, prof. MUDr. Gabriel Valočik, PhD.	
<b>Date of last modification:</b> 17.02.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/P/22	<b>Course name:</b> Lecture on research seminar at the department or clinic
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Lecture on research seminar at the department or clinic. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> The doctoral student presents the knowledge gained through individual studies of scientific and professional literature, which he/she can critically evaluate, analyse and subsequently use in his/her research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 33	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/LB/22	<b>Course name:</b> Medical Biochemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> seminars, practical exercises, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The graduate knows the functions of living organisms at the cellular level and the laws of regulation of biochemical processes in living systems. Knows the laws and mechanism of metabolism of essential nutrients (eg carbohydrates, lipids, proteins, NA) taking place in the human body. Can apply the acquired knowledge in various metabolic disorders, formulate conclusions and recommendations for clinical-biochemical diagnostics.	
<b>Brief outline of the course:</b> Enzymes and possibilities of their use in clinical-biochemical practice. Biochemical processes taking place at the cellular level (eg energy, metabolism, pathobiochemistry). Biochemistry of organs and tissues. Principles of regulation (eg hormones, gene expression). Biochemistry of body fluids and possibilities of their diagnostic use (eg acid-base regulation). Biochemical aspects of nutrition. Basics of drug chemistry and xenobiochemistry. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Devlin T.M.: Textbook of Biochemistry, Willey, 2013 Murray R.K a kol.: Harper's Biochemistry, LANGE, 2012 Vasudevan D.M. a kol.: Textbook of Biochemistry for Medical Students, JAYPEE, 2011 Aktuálne vedecké a odborné publikácie	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	

<b>Course assessment</b>	
Total number of assessed students: 2	
Ne	Pr
0.0	100.0
<b>Provides:</b> doc. RNDr. Marek Stupák, PhD., doc. Ing. Katarína Dubayová, PhD., doc. Mgr. Peter Urban, PhD., prof. Ing. Mária Mareková, CSc.	
<b>Date of last modification:</b> 17.02.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/LCH/22	<b>Course name:</b> Medical Chemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> seminars, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> Graduates will reveal the basics of bioenergetics and kinetics of biological processes. They will get acquainted with the chemistry of colloidal systems and the function of semipermeable membranes in living systems. Graduates will know the importance, possibilities of use and mechanism of action of selected organic and bioorganic compounds, including toxic substances, selected medicaments and drugs.	
<b>Brief outline of the course:</b> Chemistry of colloidal systems. Bioenergetics and kinetics of biological processes. Semipermeable membrans in living systems. Coordination compounds. Organic and bioorganic compounds and their significance in medicine. Toxic substances. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Lemke T. L. a kol.: Foye's Principles of Medicinal Chemistry, Lippincott Wiliams Wilkins, 2013 Timberlake, K.C.: Chemistry, Pearson Education, 2009 Current scientific publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
Ne	Pr
0.0	100.0
<b>Provides:</b> prof. Ing. Mária Mareková, CSc., doc. RNDr. Marek Stupák, PhD., doc. RNDr. Vladimíra Tomečková, PhD., univerzitná profesorka, Mgr. Katarína Kalinová, PhD.	
<b>Date of last modification:</b> 17.02.2023	

**Approved:** prof. Ing. Mária Mareková, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/G-UPJS-ZR/22	<b>Course name:</b> Obtaining an internal grant UPJŠ (VVGS) or scientific project for young researchers by Faculty of Medicine - as a responsible solver
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Obtaining an internal grant UPJŠ (VVGS) or scientific project for young researchers by Faculty of Medicine - as a responsible solver. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> As a responsible researcher, the doctoral student is able to specify scientific research activities and problems in the medical fields and is able to design scientific projects, including the development of a written proposal. Respects and implements social and ethical aspects in the planning and implementation of scientific research activities.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/ PBCHd/22	<b>Course name:</b> Pathobiochemistry - selected chapters
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> seminars, practical exercises, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The absolvent has knowledge of basic pathobiochemical processes, including changes in biochemical processes in metabolic disorders and diseases of individual organs and tissues. The graduate is able to apply the knowledge of the study of pathobiochemical processes in the design of clinical-biochemical examinations, necessary for proper clinical diagnosis.	
<b>Brief outline of the course:</b> Metabolic and regulatory disorders (eg carbohydrates, lipids, amino acids, plasma proteins, porphyrins). Disorders of water and electrolyte balance. Acid-base balance. Digestive and resorption disorders. Disorders of the function of individual organs (eg liver, kidneys). More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Oohashi T. et al.: Human Pathobiochemistry, Springer, 2019 Mandl J., Machovich: Medical Pathobiochemistry, Diderot, 2014 Chakraborti S.: Proteases in Health and Disease, Springer, 2013 Newsholme E., Leech T.: Functional Biochemistry in Health and Disease, Wiley, 2010 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	



<b>Course assessment</b>	
Total number of assessed students: 2	
Ne	Pr
0.0	100.0
<b>Provides:</b> MUDr. Eva Ďurovcová, PhD.	
<b>Date of last modification:</b> 17.02.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/PDS/16	<b>Course name:</b> Preparation of the thesis for dissertation examination
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> The dissertation examination is a state examination and is public. The PhD student submits the application for the dissertation examination through AiS2 in the time up to 24 months from the beginning of the study, depending on the standard length of studies, the PhD student in external form at the latest within three years from the beginning of the studies, the PhD student is obliged to submit, together with the application for the dissertation examination, a written work prepared for the dissertation examination. All information about the doctoral study is specified on the faculty's website in the Doctoral Study section, including the conditions of completion, which are detailed in the State Examinations section. Students will find here all the necessary information, forms and documents, including information on the formal side of the dissertation, which are in accordance with Directive No. 1/2011 on the basic requirements of final theses and the PhD Study Regulations at UPJŠ in Košice. The submitted work must be in accordance with the Rector's Decision No. 5/2021, issuing the principles of good practice of scientific publication at UPJŠ in Košice and its parts, Rector's Decision No. 21/2021, on issuing rules for the assessment of plagiarism at UPJŠ in Košice and its parts, Rector's Decision No. 2/2022 which issues the principles of good research practice at UPJŠ in Košice and its parts.	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 92	
abs	neabs
100.0	0.0

<b>Provides:</b>
<b>Date of last modification:</b> 23.03.2022
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/LPC/22	<b>Course name:</b> Prevention and treatment activities (per semester)
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Performing medical-preventive activities at the Faculty of Medicine (per semester). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Doctoral students involved in the treatment and prevention of patients in a hospital or outpatient clinic transfer and integrate knowledge from their own field of study / study program into work with patients.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 82	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/SID/22	<b>Course name:</b> Processing and interpretation of measured data in clinical practice
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b> ULCHBKB/VMKB/22	
<b>Conditions for course completion:</b> seminars, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The graduate masters the basic statistical methods used in clinical biochemistry. They can correctly apply the acquired knowledge, e.g. test results in the diagnosis and treatment of various diseases and knows the factors influencing the result and interpretation of biochemical examination.	
<b>Brief outline of the course:</b> Laboratory tests. Statistical analysis. Descriptive statistical analysis. Statistical evaluation and data processing. Statistical testing. Clinical effectiveness of diagnostic test. Statistical testing. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Fang J.: Statistical Methods for Biomedical Research, World Scientific Pub Co Pte, 2021 Faltin F.: Statistical Methods in Healthcare, Wiley, 2012 McPherson R.A., Pincus M.R.: Henry's Clinical Diagnosis and Management by Laboratory Methods, Elsevier, 2011 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
Ne	Pr
0.0	0.0
<b>Provides:</b> prof. Ing. Mária Mareková, CSc.	
<b>Date of last modification:</b> 17.02.2023	

**Approved:** prof. Ing. Mária Mareková, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULBF/ PAKV/22	<b>Course name:</b> Proteomic Analysis of Clinical Samples
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 <b>Per study period:</b> 14 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> solving basic tasks, exam	
<b>Learning outcomes:</b> The content and aim of the course is to get acquainted with the workflow of proteomic analysis of clinical samples, including acquaintance with analytical, physico-chemical and biochemical procedures used in clinical sample processing, nano HPLC, basic principles of mass spectrometry and bioinformatics data processing.	
<b>Brief outline of the course:</b> <ul style="list-style-type: none"> <li>- Preparation of the samples for proteomic analysis</li> <li>- Separation methods used for the preparation of clinical samples</li> <li>- Basic terms and principles of mass spectrometers</li> <li>- Ionization techniques used in mass spectrometers</li> <li>- Electron ionization, chemical ionization, atmospheric pressure ionization, atmospheric pressure photoionization, matrix laser ionization, electrospray ionization, choice of ionization technique and recording polarity</li> <li>- Basic types of mass analyzers, high and low resolution, accuracy of <math>m/z</math> determination, quadrupole analyzer, triple quadrupole analyzer, 3D ion trap, linear ion trap, flight time analyzer (TOF), electrostatic orbital trap- Orbitrap, Fourier transform ion cyclotron resonance (FT-ICR), tandem mass spectrometry (MS / MS)</li> <li>- Combination of mass spectrometry and separation techniques</li> <li>- Bioinformatics analysis of proteomic data</li> </ul>	
<b>Recommended literature:</b> Feist P., Hummon A.B.: Proteomic Challenges: Sample Preparation Techniques for Microgram-Quantity Protein Analysis from Biological Samples, Int. J. Mol. Sci. 2015, 16, 3537-3563; doi:10.3390/ijms16023537, International Journal of Molecular Sciences, ISSN 1422-0067 Twyman R. M.: Principles of Proteomics, ISBN: 9780815344728 2.Edition 2013, Garland Science Sinitcyn P., Rudolph J.D., Cox J., Computational Methods for Understanding Mass Spectrometry–Based Shotgun Proteomics Data, Annual Review of Biomedical Data Science, Vol. 1, pp. 207-234, 2018 Morovič, M., Bioanalytické metódy v medicínskom výskume (časť Proteomika) ISBN 978-80-558-1515-2; p.č. 21407, Nitra 2020	

<b>Course language:</b> slovak, english	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
Ne	Pr
0.0	0.0
<b>Provides:</b> doc. RNDr. Ján Sabo, CSc., univerzitný profesor, RNDr. Ivan Talian, PhD., RNDr. Miroslav Marcin, PhD., RNDr. Soňa Tkáčiková, PhD., RNDr. Imrich Géci, PhD.	
<b>Date of last modification:</b> 24.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> UPZMV/MVaS/22	<b>Course name:</b> Research Methodology and Statistics
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Seminar <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> 1. Online test after each lecture 2. Problem learning after each block of lectures	
<b>Learning outcomes:</b> Introduction to basic methods of epidemiological and clinical studies and mastering their application in biomedical research. Gaining theoretical knowledge in biomedical statistics and improving their practical use.	
<b>Brief outline of the course:</b> First block of lectures / problem learning PU1: research protocol 1. Guide to the course 2. Research process 3. Measurement of impact 4. Study design 5. Validity of the study 6. Questionnaire methods Second block of lectures / problem learning PU2: working with statistical software 7. Random variable 8. Hypothesis, testing 9. Introduction to work with statistical software 10. Univariate statistical methods I 11. Univariate statistical methods II Third block of lectures / problem learning PU3: statistical data analysis 12. Linear regression 13. Logistic regression 14. Mutual influences of variables, interaction 16. Randomized controlled trials - implementation 17. Randomized controlled trials - analyzes 18. Sensitivity and specificity	
<b>Recommended literature:</b>	

<p>Achengrau A., Seage G.R.: Essentials of epidemiology in public health. Jones and Bartlet Publishers. 2008</p> <p>Thompson, B. (2006). Foundations of behavioral statistics. New York, NY: Guilford Press.</p> <p>Kerlinger F.N.: Základy výzkumu chování Academia 1972</p> <p>Claus , Ebner: Základy štatistiky pre psychologov, pedagogov a sociológov. Bratislava : SPN, 1988.</p>	
<p><b>Course language:</b> slovak, english</p>	
<p><b>Notes:</b> combined form of education</p>	
<p><b>Course assessment</b> Total number of assessed students: 116</p>	
Ne	Pr
11.21	88.79
<p><b>Provides:</b> doc. Mgr. Zuzana Dankulincová, PhD., Mgr. Peter Kolarčík, PhD., prof. Mgr. Andrea Madarasová Gecková, PhD., MUDr. Jaroslav Rosenberger, PhD., doc. RNDr. Daniel Klein, PhD., Mgr. Aurel Zelko, PhD.</p>	
<p><b>Date of last modification:</b> 13.05.2022</p>	
<p><b>Approved:</b> prof. Ing. Mária Mareková, CSc.</p>	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/O-S-ZC/22	<b>Course name:</b> Responses to the scientific work in which the doctoral student is as a co-author - registered in a foreign scientific journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Responses to the scientific work in which the doctoral student is as a co-author - registered in a national scientific journal. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Gaining feedback in foreign journals demonstrates a broad and well-founded scientific knowledge at the international level in the field of research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/O-S-DC/22	<b>Course name:</b> Responses to the scientific work in which the doctoral student is as a co-author - registered in a national scientific journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 3	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Responses to the scientific work in which the doctoral student is as a co-author - registered in a national scientific journal. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Gaining feedback in domestic journals demonstrates well-founded and accepted scientific knowledge at the national level in the field of research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	neabs
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/O-S-SCI/ Scopus/22	<b>Course name:</b> Responses to the scientific work in which the doctoral student is as a co-author - registered in databases SCI or Scopus
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Responses to the scientific work in which the doctoral student is as a co-author - registered in databases SCI or Scopus. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Gaining SCI/Scopus feedback demonstrates broad and well-founded scientific knowledge in the field. At the same time, citation in an indexed source demonstrates the competence to communicate new knowledge at the highest expert level and points to the international importance of the cited research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 10	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/O-1.-ZC/22	<b>Course name:</b> Responses to the scientific work in which the doctoral student is as the 1st author - registered in a foreign scientific journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Responses to the scientific work in which the doctoral student is as the 1st author - registered in a foreign scientific journal. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Gaining feedback in foreign journals demonstrates a broad and well-founded scientific knowledge at the international level in the field of research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/O-1.-DC/22	<b>Course name:</b> Responses to the scientific work in which the doctoral student is as the 1st author - registered in a national scientific journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Responses to the scientific work in which the doctoral student is as the 1st author - registered in a national scientific journal. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Gaining feedback in domestic journals demonstrates well-founded and accepted scientific knowledge at the national level in the field of research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	neabs
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/O-1.-SCI/Scopus/22	<b>Course name:</b> Responses to the scientific work in which the doctoral student is as the 1st author - registered in databases SCI or Scopus
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Responses to the scientific work in which the doctoral student is as the 1st author - registered in databases SCI or Scopus. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Gaining SCI/Scopus feedback demonstrates broad and well-founded scientific knowledge in the field. At the same time, citation in an indexed source demonstrates the competence to communicate new knowledge at the highest expert level and points to the international importance of the cited research.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 15	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/OP-ZP/22	<b>Course name:</b> Review of bachelor thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 3	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Review of bachelor thesis. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By elaborating the report, the doctoral student demonstrates the ability to use scientific knowledge and experience from scientific research activities in the relevant field of study/study program. It declares the competence that professional problem and its proposal solutions to critically assess, evaluate, or propose other solutions.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 5	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 24.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> UPZMV/ VKMVP/22	<b>Course name:</b> Scientific communication and research projects management
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Seminar <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 1 <b>Per study period:</b> 14 / 14 <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> It is awarded on the basis of taking into account recorded lectures and solving assigned tasks in problem-based learning.	
<b>Learning outcomes:</b> Get acquainted with the principles of scientific communication and develop the skills of scientific work.	
<b>Brief outline of the course:</b> <ul style="list-style-type: none"> <li>- Research projects, their preparation and management.</li> <li>- Logistics of field data collection.</li> <li>- Legal aspects of medical research.</li> <li>- Ethical aspects of research studies. Ethics Committee Financial and administrative management research projects.</li> <li>- Literature search, work with literary databases, literary review.</li> <li>- Structure of scientific work. Publishing process, communication with scientific journals.</li> <li>- Presentation of scientific results (poster, lecture, press release).</li> <li>- Review of scientific work.</li> </ul>	
<b>Recommended literature:</b> <ol style="list-style-type: none"> <li>1. International Committee of Medical Journal Editors: Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication. April 2010, www.icmje.org</li> <li>2. Jacinto T, et al. How to write a scientific paper - Searching and Managing Biomedical information. Rev Port Pneumol. 2011. doi:10.1016/j.rppneu.2011.05.005</li> <li>3. Bahna SL, McLarty JW. Data presentation. Ann Allergy Asthma Immunol. 2009 Oct;103(4 Suppl 1):S15-21</li> <li>4. Azevedo LF et al: How write a scientific paper - Writing the methods section. Revista portuguesa de pneumologia 08/2011; DOI: 10.1016/j.rppneu.2011.06.014</li> </ol>	
<b>Course language:</b> Slovak, English	

<b>Notes:</b> hybrid form	
<b>Course assessment</b> Total number of assessed students: 18	
Ne	Pr
0.0	100.0
<b>Provides:</b> doc. Mgr. Zuzana Dankulincová, PhD., prof. Mgr. Andrea Madarasová Gecková, PhD., Ing. Lucia Bosáková, PhD., univerzitný docent, PhDr. Ivana Mészáros Skoumalová, PhD., Mgr. Daniela Fiľakovská, PhD., Mgr. Daniela Husárová, PhD., Mgr. Peter Kolarčík, PhD., Mgr. Jaroslava Kopčáková, PhD.	
<b>Date of last modification:</b> 16.05.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-MONO- IV/22	<b>Course name:</b> Scientific work as a monograph, published in another publisher
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work as a monograph, published in another publisher. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a monograph, the doctoral student demonstrates a high degree of ability to identify, evaluate, correctly apply scientific knowledge and research methods. The doctoral student demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he publishes in the monograph (usually in a foreign language) in accordance with the set quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 4	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-MONO/22	<b>Course name:</b> Scientific work as a monograph, published in • publishers Elsevier, Springer, WileyBlackwell or Taylor & Francis
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 40	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work as a monograph, published in publishers Elsevier, Springer, WileyBlackwell or Taylor & Francis. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a monograph, the doctoral student demonstrates a high degree of ability to identify, evaluate, correctly apply scientific knowledge and research methods. The doctoral student demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he publishes in the monograph (usually in a foreign language) in accordance with the set quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	neabs
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-ZC-S/22	<b>Course name:</b> Scientific work published in a foreign journal as a co-author
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work published in a foreign journal as a co-author. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific paper in a foreign journal, the doctoral student demonstrates a high degree of ability to identify, evaluate, and correctly apply scientific knowledge and research methods. Demonstrates competence in innovative ways to use existing theories and concepts, as well as the ability to generate new original scientific knowledge, which he publishes in foreign peer-reviewed (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 15	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-ZC-1./22	<b>Course name:</b> Scientific work published in a foreign journal as the 1st author
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work published in a foreign journal as the 1st author. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific paper in a foreign journal, the doctoral student demonstrates a high degree of ability to identify, evaluate, and correctly apply scientific knowledge and research methods. Demonstrates competence in innovative ways to use existing theories and concepts, as well as the ability to generate new original scientific knowledge, which he publishes in foreign peer-reviewed (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-NC-S/22	<b>Course name:</b> Scientific work published in an unreviewed foreign or national proceeding as a co-author
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 3	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work published in an unreviewed foreign or national proceedingm PhD. student - a co-author. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific paper in a non-peer-reviewed foreign or domestic proceedings, the doctoral student demonstrates the ability to identify, evaluate and apply scientific knowledge. Demonstrates competence to use existing theories and concepts, as well as the ability to generate new knowledge, which he publishes in domestic or foreign non-peer-reviewed proceedings by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 7	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-NC-1./22	<b>Course name:</b> Scientific work published in an unreviewed foreign or national proceeding as the 1st author
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 6	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work published in an unreviewed foreign or national proceedingm PhD. student - the 1st author. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific paper in a non-peer-reviewed foreign or domestic proceedings, the doctoral student demonstrates the ability to identify, evaluate and apply scientific knowledge. Demonstrates competence to use existing theories and concepts, as well as the ability to generate new knowledge, which he publishes in domestic or foreign non-peer-reviewed proceedings by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 5	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-DC-S/22	<b>Course name:</b> Scientific work published in in a national magazine, respective in in a peer-reviewed foreign or national proceeding as a co- author
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work published in in a national magazine, respective in in a peer-reviewed foreign or national proceeding as a co-author. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific paper in a domestic journal or in a peer-reviewed foreign or domestic proceedings, the doctoral student demonstrates the ability to identify, evaluate, and correctly apply scientific knowledge and research methods. Demonstrates competence to use existing theories and concepts, as well as the ability to generate scientific knowledge, which he publishes in domestic peer-reviewed journals or domestic or foreign peer-reviewed proceedings (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 43	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-DC-1./22	<b>Course name:</b> Scientific work published in in a national magazine, respective in in a peer-reviewed foreign or national proceeding as the 1st author
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Scientific work published in in a national magazine, respective in in a peer-reviewed foreign or national proceeding as the 1st author. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific paper in a domestic journal or in a peer-reviewed foreign or domestic proceedings, the doctoral student demonstrates the ability to identify, evaluate, and correctly apply scientific knowledge and research methods. Demonstrates competence to use existing theories and concepts, as well as the ability to generate scientific knowledge, which he publishes in domestic peer-reviewed journals or domestic or foreign peer-reviewed proceedings (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 32	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-S-Q1/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopus databases - as a co-author in the journal which is included in category Q1
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 30	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - co-author in the journal which is included in category Q1 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 9	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-S-Q2/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopus databases - as a co-author in the journal which is included in category Q2
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - co-author in the journal which is included in category Q2 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 10	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-S-Q3/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopus databases - as a co-author in the journal which is included in category Q3
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - co-author in the journal which is included in category Q3 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 9	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-S-Q4/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopusus databases - as a co-author in the journal which is included in category Q4
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - co-author in the journal which is included in category Q4 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 2	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-1.-Q1/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopusus databases - as the 1st author in the journal which is included in category Q1
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 40	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - 1st author in the journal which is included in category Q1 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 10	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-1.-Q2/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopusus databases - as the 1st author in the journal which is included in category Q2
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 30	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - 1st author in the journal which is included in category Q2 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-1.-Q3/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopusus databases - as the 1st author in the journal which is included in category Q3
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 25	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - 1st author in the journal which is included in category Q3 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/VP-1.-Q4/22	<b>Course name:</b> Scientific work published in the journal registered in the WoS/Scopusus databases - as the 1st author in the journal which is included in category Q4
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> PhD. student - 1st author in the journal which is included in category Q4 (according SJR or JCR). The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By publishing a scientific work in journals registered in reputable databases (WoS, Scopus), the doctoral student demonstrates a high degree of ability to identify, evaluate, correct apply the scientific knowledge and use research methodology. Ph.D. student demonstrates competence to use existing theories and concepts in an innovative way, as well as the ability to generate new original scientific knowledge, which he/she publishes in renowned journals (usually in a foreign language) by adhering to established quality and ethical standards.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	neabs
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/JSD/14	<b>Course name:</b> Spring School for PhD Students
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> 4d <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 55	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/ODP/16	<b>Course name:</b> Submission of dissertation thesis for defense
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> The PhD student can apply for the defense of the dissertation for the relevant paper of the Rectorate or the Dean's Office, if the study program takes place at the faculty, if he has obtained at least 210 credits, if the study in the daily form is four years old and an external five years old, without including the credits for the dissertation defense. The application is submitted no later than 3 months before the scheduled completion of his PhD. All information about the doctoral study is specified on the faculty's website in the Doctoral Study section, including the conditions of completion, which are detailed in the State Examinations section. Students will find here all the necessary information, forms and documents, including information on the formal side of the dissertation, which are in accordance with Directive No. 1/2011 on the basic requirements of final theses and the PhD Study Regulations at UPJŠ in Košice. The submitted work must be in accordance with the Rector's Decision No. 5/2021, issuing the principles of good practice of scientific publication at UPJŠ in Košice and its parts, Rector's Decision No. 21/2021, on issuing rules for the assessment of plagiarism at UPJŠ in Košice and its parts, Rector's Decision No. 2/2022 which issues the principles of good research practice at UPJŠ in Košice and its parts.	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 62	
abs	neabs
100.0	0.0
<b>Provides:</b>	

<b>Date of last modification:</b> 23.03.2022
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/V/K-ZP/22	<b>Course name:</b> Supervision of bachelor thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 8	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Supervision of bachelor thesis. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> By supervising the bachelor thesis, the doctoral student demonstrates the ability to use scientific knowledge and methods (e.g. laboratory, statistic) acquired by studying in the relevant field of study/study program. Can critically assess a professional problem and proposed solutions, evaluate it, or suggest other solutions. At the same time, it demonstrates the ability to transfer the acquired knowledge and skills.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 13	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 24.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/PC/22	<b>Course name:</b> The direct pedagogical activity
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> The pedagogical activity of a doctoral student or other related professional activity in the range of up to four hours per week on average per academic year. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> Through pedagogical activities, the doctoral student demonstrates the ability to transfer and integrate knowledge from their own field of study/study program into education. Is able to design and implement part of the educational process (e.g. practical exercises, including the evaluation of partial results) in accordance with current trends in higher education. He is able to select and apply the right techniques and strategies of study group management in accordance with the requirements for the level of communication and digital competencies.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 91	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> ULCHBKB/ VIDB/22	<b>Course name:</b> Usage of the Internet Databases in Biochemistry
<b>Course type, scope and the method:</b> <b>Course type:</b> Seminar <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> practical exercises, seminars, solving of assigned tasks, exam; more details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Learning outcomes:</b> The graduates will gain theoretical and practical knowledge about the correct collection and processing of biological material. They know the basic laboratory methods used in the analysis of biological samples. They will get acquainted with the work in the clinical-biochemical laboratory and the used instrumentation (including automation and control) and will be able to apply the results obtained by clinical-biochemical examination in the diagnosis of diseases.	
<b>Brief outline of the course:</b> Introduction to clinical biochemistry. Collection of biological material and interpretation of results (physiological and pathophysiological values). Basic laboratory parameters in emergency medicine. Diabetes mellitus. Biochemical examinations in liver diseases. Kidneys. Inflammatory markers. Cardiac markers. Blood count. Coagulation examinations. Bone metabolism - markers of bone metabolism. Specialized investigation procedures. Automation and robotization in clinical-biochemical diagnostics. More details: <a href="https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/">https://www.upjs.sk/lekarska-fakulta/en/departament/medical-and-clinical-biochemistry/education/subjects/doctoral-study/</a>	
<b>Recommended literature:</b> Shweta Pandey et al.: Protocols in Biochemistry and Clinical Biochemistry, 2020 Marshall W.: Clinical Biochemistry: Metabolic and Clinical Aspects, Elsevier, 2014 Swaminathan R.: Handbook of Clinical Biochemistry, World Scientific Publishing Co Pte, 2011 McPherson R.A., Pincus M.R.: Henry's Clinical Diagnosis and Management by Laboratory Methods, Elsevier, 2011 Current scientific and professional publications	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	

<b>Course assessment</b>	
Total number of assessed students: 1	
Ne	Pr
0.0	100.0
<b>Provides:</b> prof. Ing. Mária Mareková, CSc.	
<b>Date of last modification:</b> 17.02.2023	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Medicine	
<b>Course ID:</b> Dek. LF UPJŠ/OVK/22	<b>Course name:</b> Work in the conference organizing committee
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of ECTS credits:</b> 3	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Work in the conference organizing committee. The doctoral student states the activity in the doctoral annual report and these activities are relevantly documented (e.g. publication, program).	
<b>Learning outcomes:</b> The doctoral student working in the organizing committee of the conference demonstrates the ability of teamwork in the preparation of a scientific or professional event. It declares the competence to manage the implementation of the event in terms of time and content, to communicate effectively in words and writing as needed in a foreign language at a professional level with different types of people. He/she can use various technical means, recommend and propose solutions and, if necessary, make independent decisions.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> english, slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
abs	neabs
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 23.03.2022	
<b>Approved:</b> prof. Ing. Mária Mareková, CSc.	