

Course descriptions

TABLE OF CONTENTS

1. 419-PhD-A/15	Active participation at the domestic scientific event 4)	3
2. 418-PhD-A/15	Active participation at the international scientific events 4)	4
3. 425-PhD-A/15	Activities other (eg. A member of the organizing committee of the conference)	5
4. 914-PhD-A/15	Applied Statistics for Pharmacists (state exam)	6
5. 404-PhD-A/15	Authorship of teaching aids and texts	7
6. 426-PhD-A/15	Citation SCI, SSCI	8
7. 427-PhD-A/15	Citation other	9
8. 910-PhD-A/15	Clinical Pharmacology and Pharmaco-Therapy (state exam)	10
9. 405-PhD-A/15	Co-authorship of teaching aids and texts	12
10. 410-PhD-A/15	Co-supervisor of the final work of bachelor study	13
11. 407-PhD-A/15	Co-supervisor of the work to attend to Student's scientific conference	14
12. 429-PhD-A/15	Completion of a defined stage of the scientific program of the PhD student	15
13. 300-PhD-A/15	Dissertation Work Thesis Defense (state exam)	16
14. 430-PhD-A/15	Dissertation writting, if was taken to the defense	17
15. 400-PhD-A/15	Foreign language exam	18
16. 807-PhD-A/15	Immunology (state exam)	19
17. 402-PhD-A/15	Individual study of the scientific literature	20
18. 424-PhD-A/15	Involvement in the resolution of another research project	21
19. 806-PhD-A/15	Microbiology (state exam)	22
20. 423-PhD-A/15	Obtaining of "Grant FaF UK for young scientists" (Co- investigator of grant 5)	23
21. 422-PhD-A/15	Obtaining of "Grant FaF UK for young scientists" (Principal Investigator 5)	24
22. 421-PhD-A/15	Obtaining of "University Grant for Young Researchers" (Co - investigator of grant) 5)	25
23. 420-PhD-A/15	Obtaining of "University Grant for Young Researchers" (Principal Investigator 5)	26
24. 406-PhD-A/15	Participation in the management of the thesis in Master's degree	27
25. 403-PhD-A/15	Passing other subject of the offer 2) of other university faculties	28
26. 401-PhD-A/15	Passing prescribed doctoral lectures and seminars 1)	29
27. 411-PhD-A/15	Passing the Dissertation exam	30
28. 804-PhD-A/15	Pathological Physiology (state exam)	31
29. 952-PhD-A/15	Patobiochemistry (state exam)	33
30. 409-PhD-A/15	Pedagogical activities - seminars	34
31. 408-PhD-A/15	Pedagogical activity - exercises	35
32. 912-PhD-A/15	Pharmaceutical informatics (state exam)	36
33. 909-PhD-A/15	Pharmacoeconomics (state exam)	37
34. 811-PhD-A/15	Pharmacoepidemiology (state exam)	38
35. 800-PhD-A/15	Pharmacology (state exam)	39
36. 428-PhD-A/15	Presentation at the conference of young scientists	41
37. 417-PhD-A/15	Professional publications in domestic journal	42
38. 416-PhD-A/15	Professional publications in international journals	43
39. 900-PhD-A/15	Retail Pharmacy and Social Pharmacy (state exam)	44
40. 415-PhD-A/15	The original publication in non current contents domestic journals or conference proceedings	46

41. 414-PhD-A/15	The original publication in non current contents international journals or conference proceedings.....	47
42. 413-PhD-A/15	The original publication in peer-reviewed domestic journal.....	48
43. 412-PhD-A/15	The original publication in peer-reviewed international journals.....	49
44. 805-PhD-A/15	Toxicology (state exam).....	50

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/419-PhD-A/15	Course title: Active participation at the domestic scientific event 4)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 4	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 3	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/418-PhD-A/15	Course title: Active participation at the international scientific events 4)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 7	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/425-PhD-A/15	Course title: Activities other (eg. A member of the organizing committee of the conference)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 3	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/914-PhD-A/15	Course title: Applied Statistics for Pharmacists
Number of credits: 0	
Educational level: III.	
Course requirements: Successfully passed exam	
State exam syllabus:	
Languages necessary to complete the course: English language	
Last change: 18.02.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/404-PhD-A/15	Course title: Authorship of teaching aids and texts
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 20	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/426-PhD-A/15	Course title: Citation SCI, SSCI
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 5	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/427-PhD-A/15	Course title: Citation other
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 3	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/910-PhD-A/15	Course title: Clinical Pharmacology and Pharmaco-Therapy
Number of credits: 0	
Educational level: III.	
Course requirements: Passing of the exam.	
Learning outcomes: By completing the course, the PhD student markedly expands and deepens basic information about therapeutic options and possible adverse drug reactions of selected pharmacotherapeutic groups of medicines. Student gains an advanced overview of the latest recommendations for the rational use of medicines in pharmacotherapy. Student gets the latest information on the issue of over-the-counter medicines. Completion of the course will contribute to better employment of PhD graduates in clinical practice as partners of doctors when solving common pharmacotherapeutic problems.	
Class syllabus: ATC codes A – V: - the most current problems of therapeutic use of medicines, - standard therapeutic procedures, - identification and solving of pharmacotherapeutic problems, - recommendations for the rational use of medicines in pharmacotherapy. The issue of over-the-counter medicines in relation to high-risk groups of patients, - interactions of over-the-counter medicines, - prescription from the perspective of non-rational pharmacotherapy - pharmacotherapeutic problems, first aid, therapy, case reports: - the most common diseases of the gastrointestinal tract, diarrhea, constipation, - insomnia and fear, - cough, shortness of breath, - fever, - headache, - bleeding disorders, - minor fungal and viral infections, - ENT diseases, - selected diseases of the mucous membrane - obesity, dyslipidemia, diabetes and cardiovascular diseases, nutritional supplements for good practice, - particular symptoms of CNS disease, - the most common skin damage, - basics of patient examination, characteristics and first aid: - stomachache, - chest pain and back pain, - dizziness and vomiting,	

- shock and unconsciousness.
State exam syllabus:
Recommended literature: Begg EJ. Instant clinical Pharmacology. Blackwell Publishing Ltd. 2003. 112 p. Katzung BG, Masters SB, Trevor AJ: Basic and clinical pharmacology. The McGraw-Hill Companies, Inc. 2012, 1245 p. Ritter JM, Lewis LD, Mant TGK, Ferro M: A Textbook of Clinical Pharmacology and Therapeutics. Hodder Arnold Hachette Livre UK. 2008. 476 p
Languages necessary to complete the course: English
Notes: Teachers: prof. PharmDr. Ján Klimas, PhD., MPH., prof. RNDr. Magdaléna Kuželová, CSc., doc. PharmDr. Anna Paul Hrabovská, PhD., PharmDr. Gabriel Dóka, PhD., PharmDr. Stanislava Kosírová, PhD.
Last change: 02.04.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/405-PhD-A/15	Course title: Co-authorship of teaching aids and texts
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/410-PhD-A/15	Course title: Co-supervisor of the final work of bachelor study
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/407-PhD-A/15	Course title: Co-supervisor of the work to attend to Student's scientific conference
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/429-PhD-A/15	Course title: Completion of a defined stage of the scientific program of the PhD student
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 5	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/300-PhD-A/15	Course title: Dissertation Work Thesis Defense
Number of credits: 0	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/430-PhD-A/15	Course title: Dissertation writting, if was taken to the defense
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 30	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/400-PhD-A/15	Course title: Foreign language exam
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers: Mgr. Oľga Hollá, PhDr. Darina Kližanová, PaedDr. Viera Žufková, PhD., Ing. Mgr. Erika Jurišová, PhD.	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/807-PhD-A/15	Course title: Immunology
Number of credits: 0	
Educational level: III.	
Course requirements: Successful passing the exam	
Learning outcomes: By completing the course, the doctoral student will expand his/her knowledge about the importance and function of the human immune system as well as about the mechanisms of its action. In a comprehensive view, he/she will obtain additional information on how drugs, when applied to the body, act on specific immune mechanisms that are essential in the prevention and treatment of diseases. Student will also understand the principles and ways of using the immunodiagnostic methods that the pharmacist encounters in practice.	
Class syllabus: The course Immunology deals with the knowledge of basic and clinical immunology. The student is acquainted with the composition and function of the human immune system, the mechanisms of cellular and humoral immunity, as well as the preventive, therapeutic and practical use of immunology in medicine and pharmaceutical practice. The basic part of Immunology deals with inflammation, fever, structure and function of complement, cytokines, antigens and antibodies. Emphasis is placed on the preparation and use of monoclonal antibodies in pharmacy and medicine, without which modern diagnostics and therapy of diseases would not be possible. The clinical part of Immunology focuses on anti-infective, transplant and anti-tumor immunity and also deals with immunopathological diseases, as well as the latest immunostimulatory and immunosuppressive pharmaceuticals, preparation, application and use of vaccines and passive immunization products for disease prevention and therapy. The conclusion represent the principles of basic immunodiagnostic methods that pharmacists encounter in practice.	
State exam syllabus:	
Recommended literature: Doan, T., Melvold, R., Viselli, S., Waltenbaugh, C.: Lippincotts Illustrated Reviews Immunology. Wolters Kluwer Health, 2021 Buc M.: Basic and Clinical Immunology. Comenius University in Bratislava, 2020	
Languages necessary to complete the course: English	
Notes: Teacher: doc. Mgr. Andrea Bilková, PhD., doc. Mgr. Martina Hřčka Dubničková, PhD.	
Last change: 01.04.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/402-PhD-A/15	Course title: Individual study of the scientific literature
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 5	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/424-PhD-A/15	Course title: Involvement in the resolution of another research project
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 5	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/806-PhD-A/15	Course title: Microbiology
Number of credits: 0	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/423-PhD-A/15	Course title: Obtaining of "Grant FaF UK for young scientists" (Co-investigator of grant) 5)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/422-PhD-A/15	Course title: Obtaining of "Grant FaF UK for young scientists" (Principal Investigator) 5)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 15	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/421-PhD-A/15	Course title: Obtaining of "University Grant for Young Researchers" (Co - investigator of grant) 5)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/420-PhD-A/15	Course title: Obtaining of "University Grant for Young Researchers" (Principal Investigator) 5)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 20	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/406-PhD-A/15	Course title: Participation in the management of the thesis in Master's degree
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 15	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/403-PhD-A/15	Course title: Passing other subject of the offer 2) of other university faculties
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 0	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/401-PhD-A/15	Course title: Passing prescribed doctoral lectures and seminars 1)
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/411-PhD-A/15	Course title: Passing the Dissertation exam
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 20	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/804-PhD-A/15	Course title: Pathological Physiology
Number of credits: 0	
Educational level: III.	
Course requirements: Successful completion of the exam.	
Learning outcomes: The participant of the course expands and completes the spectrum of syndromes and diseases from the individual organ systems, obtained within the study of the subject of pathology. Student learns in more detail recent and experimentally identified pathomechanisms leading to the damage of physiological functions of the cell, organs, and systems. Student will extend current knowledge about the disorders of metabolism, internal environment, adaptational mechanisms to the environmental changes and infectious diseases caused by bacteria, viruses, parasites, and fungi. Acquired advanced knowledge will be used in conjunction with other biomedically oriented subjects of pharmacological program.	
Class syllabus: Metabolic disorders, obesity, metabolic syndrome, dyslipidemia, disorders of vitamins and elements. Disorders of the internal environment, water and electrolyte management, acid-base homeostasis. Interaction of the organism with the environment. Adaptation, stress, cell death. Circulatory disorders in the cerebral circulation, pulmonary circulation, renal hypertension, ischemia in the mesenteric stream. Changes in cardiac function. Cardiomyopathy. Congenital heart diseases. Diseases of the valves. Skin diseases caused by infection, inflammation, allergies, skin efflorescences. Children's infectious diseases. Kidney and urinary tract diseases. Nephrotic syndrome, pyelonephritis, stones, incontinence. Pulmonary parenchymal diseases. Tuberculosis, pulmonary interstitial diseases, pneumoconiosis, fibrosis. Selected intestinal diseases. Malabsorption - celiac disease, inflammatory bowel diseases - Crohn's disease, ulcerative colitis, appendicitis. Changes in the function of the gallbladder and bile ducts. Infectious diseases - epidemiology, transmission, pathomechanisms, microbial flora, resistance, bacteria, parasites. Selected viral and fungal diseases. Pathophysiology of the musculoskeletal system. Diseases of joints and muscles.	
State exam syllabus:	
Recommended literature: Textbook of pathology, 7th edition, by H. Mohan. Ed. Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, India, 2014, ISBN 978-9351523697. Vander's Human Physiology 12th Ed, McGraw/Hill, Ed., NY, by EP Widmaier, H Raff, KT Strang, 2011, ISBN 978/0/07/122215/0. Essentials of Human Physiology for Pharmacy, CEC Press, 2008, by LK McCorry (e-version).	

Essentials of Pathophysiology, 3rd edition, by C.M. Porth. Ed. Lippincott and Wilkins: Philadelphia, 2011, ISBN 0781770874.
General and Systemic Pathology, 4th edition, by J.C.E. Underwood. Ed. Churchill Livingstone: NY, 2004 ISBN 0443073341/9780443073342.
Essentials of Pathophysiology for Pharmacy, 1st edition, MM Zdanovicz, CRC Press, 2002, by ISBN 781587160363 (e-version).
Pathophysiology, by I Hulín, Bratislava: Slovak Academic Press, 1997, ISBN 80-85665-90-5.

Languages necessary to complete the course:

English language

Notes:

Teachers: prof. PharmDr. Ján Klimas, PhD., MPH, PharmDr. Tomáš Rajtík, PhD., PharmDr. Eva Kráľová, PhD., PharmDr. Stanislava Kosírová, PhD.

Last change: 08.04.2022

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/952-PhD-A/15	Course title: Patobiochemistry
Number of credits: 0	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/409-PhD-A/15	Course title: Pedagogical activities - seminars
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 15	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/408-PhD-A/15	Course title: Pedagogical activity - exercises
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/912-PhD-A/15	Course title: Pharmaceutical informatics
Number of credits: 0	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/909-PhD-A/15	Course title: Pharmacoeconomics
Number of credits: 0	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/811-PhD-A/15	Course title: Pharmacoepidemiology
Number of credits: 0	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/800-PhD-A/15	Course title: Pharmacology
Number of credits: 0	
Educational level: III.	
Course requirements: Successful passing of the exam	
Learning outcomes: Expansion and intensification of knowledge from pharmacology the can be used by the student to formulate scientific hypotheses to create a basis for the analytical part of the dissertation and to formulate conclusions following the obtained results.	
Class syllabus: The focus is on one or more of the following areas of pharmacology: <ul style="list-style-type: none"> - pharmacodynamics with respect to the mechanism of action of drugs - pharmacokinetics - pharmacogenomics - adverse effects of drugs - drug overdose - therapeutic use of drugs Special pharmacology <ul style="list-style-type: none"> - pharmacology of drugs with effect on the central nervous system - pharmacology of drugs with effect on the autonomous nervous system - pharmacology of drugs with effect on the smooth muscles - pharmacology of drugs with effect on the cardiovascular system and kidneys - pharmacology of blood, inflammation - pharmacology of drugs with effect on the respiratory system - pharmacology of drugs with effect on the gastrointestinal system - pharmacology of drugs with effect on the endocrine system - pharmacology of anti-infective drugs - pharmacology of anticancer drugs - new directions of therapy of diseases using biological drugs 	
State exam syllabus:	
Recommended literature: Brunton LL, Hilal-Dandan R, Knollmann BC et al. Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 13e, McGraw-Hill Education 2018 Golan D. E., Tashjian Jr A. H., Armstrong E. J., Armstrong A. Wet al. .: Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy, 3rd 4th Edition. Lippincott Williams&Wilkins, 20172 Katzung BG, Vanderah TW et al. : Basic & Clinical Pharmacology, 15e, McGraw Hill 2021 Rang, H.P., Dale, M.M. a kol.: Rang and Dale's Pharmacology, 7th ed. London, Churchill Livingstone, Elsevier, 2012	

Ritter JM. et al.: Rang and Dale's Pharmacology E-Book, Elsevier, 9th ed., 2018
Languages necessary to complete the course: English language
Notes: Lecturers: prof. PharmDr. Adriana Ďuriš Adameová, PhD.; prof. PharmDr. Ján Klimas, PhD., MPH.; doc. Peter Křenek, PhD.; doc. PharmDr. Anna Paul Hrabovská, PhD.; doc. PharmDr. Marek Mátuš, PhD.; Mgr. Peter Vavrinec, PhD.; Mgr. Diana Vavrincová, PhD
Last change: 11.04.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/428-PhD-A/15	Course title: Presentation at the conference of young scientists
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 5	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/417-PhD-A/15	Course title: Professional publications in domestic journal
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 4	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/416-PhD-A/15	Course title: Professional publications in international journals
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 7	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/900-PhD-A/15	Course title: Retail Pharmacy and Social Pharmacy
Number of credits: 0	
Educational level: III.	
Course requirements: Successful completion of the exam.	
Learning outcomes: Social pharmacy - pharmacy enables the third-level doctoral student to develop theoretical knowledge and apply their skills to the social and economic aspects of the position of drugs and medicines in society. The necessary content is language training, enabling to confront the state and knowledge of individual aspects of medicine and drug in society abroad.	
Class syllabus: Theoretical problems of pharmacy and medicines in society - characteristics of medicines, ensuring the way and safety of medicines from their origin to use in the individual patient, 2. The share of pharmacy in social and health policy - WHO pharmaceutical programs, 3. Drug policy - legislation, system application, management systems, marketing application, consumption and need for drugs and medicines, 4. Pharmaceutical and pharmaceutical care - research, production, control of drugs and medicines, dispensing and provision of information, implementation of good manufacturing, distribution and pharmaceutical practice, 5. Pharmaceutical informatics - content, scope, programs and their use, drug compliance and abuse, self-treatment and its pharmaceutical aspects 6. Drug and society - position and importance of drug, pharmacoepidemiology, compliance, non-compliance, consumption and need for drugs, pharmacoconomics, pharmaceutical informatics, 7. The position of pharmacy in society and healthcare - social, health and drug policy, management and marketing of pharmaceutical activities, legislative aspects of drug policy implementation, 8. History of pharmacy and museology - the position of the drug in the various stages of social development.	
State exam syllabus:	
Recommended literature: 1. Kelly, W. N. Pharmacy. What It Is and How It Works. 2012, third edition. CRC Press, Taylor & Francis Group, LLC. 2012, 452p. ISBN 978-1-4398-5305-4. 2. Royal Pharmaceutical Society. Medicines, Ethics and Practice. The professional guide for pharmaceuticals. Edition 39, July 2015, 202p. 3. Desselle, S. P., Zgarrick, D P., Alston, G. L. Pharmacy Management. 2010, 3rd ed., American Society of Health-System Pharmacists, Med Graw Hill Inc. 2010, 715p, ISBN 978-0-07-177431-4. 4. Donyai, P. Social and Cognitive Pharmacy. Theory and Case Studies. 2012. PhP Pharm. Press, UK. 2012, 229 p. ISBN-978-0-8536-9-899-9.	

5. Carter, J., Slack M., Pharmacy in Public Health. Basics and Beyond. 2010. American Soc. Health-System Pharmacists, Inc. 2010, 390p. ISBN 978-1-58528-172-5.
6. Berger, M. L. et al. Health Care Cost, Quality, and Outcomes. 2003. International Society for Pharmacoeconomics and Outcomes Research. 2003, 264p. ISBN 0-9743289-0-1
7. Sexton, J., Nickless G., Green, Ch.: Pharmaceutical Care Made Easy, London, Pharmaceutical Press, 2006, 178 p.
8. Edwards, C., Stillman, P.: Minor Illness or Major Disease? The clinical pharmacist in the community. Fourth edition, London, Pharmaceutical Press, 2006, 285 p.
9. Stephens, M.: Hospital Pharmacy, London, Pharmaceutical Press, 2006, 285 p.
10. Harman, R.J.: Patient Care in Community Practice, London, Pharmaceutical Press, 2002, 203 p.
11. Harman, R.J.: Handbook of Pharmacy Health Education, second edition, London, Pharmaceutical Press, 2001, 299 p.

Languages necessary to complete the course:

English language

Notes:

Teachers: doc. PharmDr. Tomáš Tesař, PhD., MBA, MPH, MSc (HTA), doc. PharmDr. Daniela Mináriková, PhD., MSc.

Last change: 08.04.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/415-PhD-A/15	Course title: The original publication in non current contents domestic journals or conference proceedings
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 7	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/414-PhD-A/15	Course title: The original publication in non current contents international journals or conference proceedings
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 15	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/413-PhD-A/15	Course title: The original publication in peer-reviewed domestic journal
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 30	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/412-PhD-A/15	Course title: The original publication in peer-reviewed international journals
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: distance learning	
Number of credits: 35	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/805-PhD-A/15	Course title: Toxicology
Number of credits: 0	
Educational level: III.	
Course requirements: Successfully passing the exam.	
Learning outcomes: <p>The class will enable the doctoral student to deepen and expand their knowledge about the toxic effects of xenobiotics on living organisms. The current boundaries of toxicology are considerably wide due to the number of chemical compounds in the environment, and toxic damage to the organism also occurs through long-term exposure to pollutants. It turns out that in today's developed societies there is a growing need for toxicologists; unfortunately, they are not specifically trained for this demand by any university. A well-educated pharmacist, who is constantly expanding their knowledge in the field of chemical-analytical and biological-pharmaceutical fields, could provide this need. In addition to toxicity, which is qualitatively influenced by dose, the second interesting property of chemical substances (drugs) is their storage in the body (accumulation).</p>	
Class syllabus: <p>Importance of toxicology for the field pharmacy. Factors influencing toxic effects. Basics of toxokinetics. Characteristics, course and complications of poisoning. Drug toxicology. Poisoning in children. Ethyl alcohol poisoning. Poisoning by addictive substances. Poisoning by substances of plant and animal origin. Chemical waste poisoning. Agricultural toxicology. Toxicology of ionizing radiation. Biological, chemical and radiation weapons. Antidote. Biological tests.</p>	
State exam syllabus:	
Recommended literature: <p>Mulder G.J. Pharmaceutical toxicology. Pharmaceutical Press 2006 Carson R.H.: The toxicology handbook for clinicians. Mosby Elsevier, Philadelphia, 2006 Hodgson E.: A textbook of modern toxicology, Wiley, 2010 Friedman L.M. et al.: Fundamentals of Clinical Trials, Springer 2015 Galin J.I. & Ognibene F.P.: Principles and Practice of Clinical Research, Academic Press 2007</p>	
Languages necessary to complete the course: <p>English language</p>	
Notes: <p>Lecturers: Vyučujúci: doc. PharmDr. Anna Paul Hrabovská, PhD.; doc. PharmDr. Marek Máťuš, PhD.; Mgr. Ondrej Sprušanský, PhD.; Mgr. Peter Vavrínek, PhD.; Mgr. Diana Vavrincová, PhD.</p>	
Last change: 11.04.2022	
Approved by:	