

Course descriptions

TABLE OF CONTENTS

1. 419-PhD/11	Active participation at the domestic scientific events.....	3
2. 418-PhD/11	Active participation at the international scientific events.....	4
3. 425-PhD/11	Activities other (eg. A member of the organizing committee of the conference).....	5
4. 914-PhD/11	Applied statistics for Pharmacists (state exam).....	6
5. 404-PhD/11	Authorship of teaching aids and texts.....	7
6. 426-PhD/11	Citation SCI, SSCI.....	8
7. 427-PhD/11	Citation other.....	9
8. 910-PhD/11	Clinical Pharmacology and Pharmaco-Therapy (state exam).....	10
9. 702-PhD/11	Clinical Pharmacy (state exam).....	12
10. 405-PhD/11	Co-authorship of teaching aids and texts.....	14
11. 410-PhD/11	Co-supervisor of the final work of bachelor study.....	15
12. 407-PhD/11	Co-supervisor of the work to attend to Student's scientific conference.....	16
13. 429-PhD/11	Completion of a defined stage of the scientific program of the PhD student.....	17
14. 300-PhD/11	Dissertation Work Thesis Defense (state exam).....	18
15. 430-PhD/11	Dissertation writting, if was taken to the defense.....	19
16. 400-PhD/11	Foreign language exam.....	20
17. 807-PhD/11	Immunology (state exam).....	21
18. 402-PhD/11	Individual study of the scientific literature.....	23
19. 424-PhD/11	Involvement in the resolution of another research project.....	25
20. 806-PhD/11	Microbiology (state exam).....	26
21. 423-PhD/11	Obtaining of "Grant FaF UK for young scientists" (Co- investigator of grant) 5).....	27
22. 422-PhD/11	Obtaining of "Grant FaF UK for young scientists" (Principal Investigator) 5).....	28
23. 421-PhD/11	Obtaining of "University Grant for Young Researchers" (Co - investigator of grant) 5).....	29
24. 420-PhD/11	Obtaining of "University Grant for Young Researchers" (Principal Investigator) 5).....	30
25. 406-PhD/11	Participation in the management of the thesis in Master's degree.....	31
26. 403-PhD/11	Passing other subject of the offer 2) of other university faculties.....	33
27. 401-PhD/11	Passing prescribed doctoral lectures and seminars 1).....	34
28. 411-PhD/11	Passing the Dissertation exam.....	35
29. 804-PhD/11	Pathological Physiology (state exam).....	36
30. 952-PhD/15	Patobiochemistry (state exam).....	38
31. 409-PhD/11	Pedagogical activities - seminars.....	39
32. 408-PhD/11	Pedagogical activity - exercises.....	40
33. 912-PhD/11	Pharmaceutical informatics (state exam).....	41
34. 909-PhD/11	Pharmacoeconomics (state exam).....	42
35. 811-PhD/11	Pharmacoepidemiology (state exam).....	43
36. 800-PhD/11	Pharmacology (state exam).....	44
37. 428-PhD/11	Presentation at the conference of young scientists.....	46
38. 417-PhD/11	Professional publications in domestic journal.....	47
39. 416-PhD/11	Professional publications in international journals.....	48
40. 900-PhD/11	Retail Pharmacy and Social Pharmacy (state exam).....	49
41. 415-PhD/11	The original publication in non current contents domestic journals or conference proceedings.....	51

42. 414-PhD/11	The original publication in non current contents international journals or conference proceedings.....	52
43. 413-PhD/11	The original publication in peer-reviewed domestic journals.....	53
44. 412-PhD/11	The original publication in peer-reviewed international journals.....	54
45. 805-PhD/11	Toxicology (state exam).....	55

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/419-PhD/11	Course title: Active participation at the domestic scientific events
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 342	
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/11	Course title: Active participation at the international scientific events
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 319	
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/11	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: on-site learning, 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: 61	
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/11	Course title: Applied statistics for Pharmacists
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/404-PhD/11	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: on-site learning, distance learning	
Number of credits: 20	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: completed the evaluation with a credit value after submitting the teaching aid or text (source cover, imprint letters with ISBN or ISSN) to the trainer.	
Learning outcomes: The doctoral student, led by the supervisor, demonstrated the ability to work in the preparation and writing of teaching aids and texts.	
Class syllabus: Doktorand po konzultácii so školiteľom spolupracuje na príprave a písaní učebných pomôcok textov so spoluautormi a s redakciou vydavateľa.	
Recommended literature: Current sources on the presented issues.	
Languages necessary to complete the course: Slovak language	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 11.02.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/426-PhD/11	Course title: Citation SCI, SSCI
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 67	
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/427-PhD/11	Course title: Citation other
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 9	
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/910-PhD/11	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: Kuželová, M., Švec, A., Švec, P.: Kapitoly zo všeobecnej klinickej farmakológie pre farmaceutov. Bratislava : Farmaceutická fakulta UK, 2011. 196 s. Kuželová, M., Švec, A., Švec, P.: Vybrané kapitoly z klinickej farmakológie pre farmaceutov. Bratislava : Farmaceutická fakulta UK, 2010. 152 s. Kuželová M., Kováčsová B., Švec P.: Farmakológia antiinfekčných liečiv. Osveta, 2010. 184s. 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 Wawruch M., Laššánová M., Tisoňová J.: Kapitoly z klinickej farmakológie, Univerzita Komenského v Bratislave, 2012, 176 s. Kriška, M. a kol.: Memorix klinickej farmakológie. Bratislava : SAP, 2002. 879 s. Kriška, M. a kol.: Riziko liekov v medicínskej praxi. Bratislava : SAP, 2000. 474 s.
Languages necessary to complete the course: Slovak, 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:

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/702-PhD/11	Course title: Clinical Pharmacy
Number of credits: 0	
Educational level: III.	
Course requirements: Passing of the exam.	
Learning outcomes: The PhD students will expand and deepen their expertise of the latest knowledge of clinical pharmacy in connection with the effects of medicines and with the reduction of pharmacotherapeutic risk, medication errors and pharmacotherapeutic problems. Students will learn how to apply the acquired knowledge in real-world practice at various levels related to pharmacotherapy in cooperation with physicians.	
Class syllabus: The focus is on one or more of the following areas of clinical pharmacy: - pre-clinical and clinical evaluation of new medicines, - regulatory measures in this area in relation to the registration of medicinal products, - clinical pharmacokinetics, - symptomatology and pharmacotherapy of acute and chronic diseases, - the effect of the disease process on the effects of medicines, - monitoring of pharmacotherapy and drug levels, - interpretation of laboratory results with respect to pharmacotherapy, - the most serious pharmacotherapeutic problems related to - adverse drug reactions, including allergic drug reactions, - drug interactions, - medication errors, - patient safety during treatment, - pharmacovigilance, - rational use of medicines in high-risk groups of patients, - compliance, adherence to therapy and concordance, - oral and parenteral nutrition, - lifestyle medicines.	
State exam syllabus:	
Recommended literature: Kuželová, M., Švec, A., Švec, P.: Kapitoly zo všeobecnej klinickej farmakológie pre farmaceutov. Bratislava : Farmaceutická fakulta UK, 2011. 196 s. Kuželová, M., Švec, A., Švec, P.: Vybrané kapitoly z klinickej farmakológie pre farmaceutov. Bratislava : Farmaceutická fakulta UK, 2010. 152 s. Nathan A: Managing symptoms in the pharmacy. Pharmaceutical Press. 2008. 257 p. Walker R, Whittlesea C: Clinical Pharmacy and Therapeutics. Fifth edition. Churchill Livingstone. Elsevier. 2012. 983 p.	

Bond Ch. Evidence-based pharmacy. Pharmaceutical Press. 2006. 226 p.
 Barber N., Willson A: Clinical pharmacy. Churchill Livingstone, 2007 - 502 s.
 Wiffen P, Mitchell M, Snelling M, Stoner N: Oxford Handbook of Clinical Pharmacy (2 ed.)
 Oxford University Press, 2012, 704 p.
 Kriška, M. a kol.: Memorix klinickej farmakológie. Bratislava : SAP, 2002. 879 s.
 Kriška, M. a kol.: Riziko liekov v medicínskej praxi. Bratislava : SAP, 2000. 474 s.
 Kuželová M., Kováčsová B., Švec P.: Farmakológia antiinfekčných liečiv. Osveta, 2010. 184s.
 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:

Slovakia, 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/11	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: on-site learning, distance learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: He / She completed the evaluation with a credit value after submitting the teaching aid or text (source cover, imprint letters with ISBN or ISSN) to the trainer.	
Learning outcomes: The doctoral student, led by the supervisor, demonstrated the ability to cooperate and co-participate in the preparation and writing of teaching aids and texts.	
Class syllabus: The doctoral student, in consultation with the supervisor, participates in the preparation and writing of teaching aids with the author and other co-authors.	
Recommended literature: Current sources on the presented issues.	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 16	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 11.02.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/410-PhD/11	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: on-site learning, 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: 25	
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/407-PhD/11	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: on-site learning, 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: 37	
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/429-PhD/11	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: on-site learning, 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: 85	
ABS	NEABS
98,82	1,18
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/11	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/11	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: on-site learning, 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: 110	
ABS	NEABS
99,09	0,91
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/400-PhD/11	Course title: Foreign language exam
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 210	
ABS	NEABS
99,52	0,48
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/11	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: Buc M.: Základná a klinická imunológia. Bratislava: UK, 2009. 602 s. Kiňová Sepová H., Bilková A., Hrčka Dubníčková M., Dudík B.: Imunologické metódy: princípy a návody na praktické cvičenia. Bratislava: UK, 2021. Doan, T., Melvold, R., Viselli, S., Waltenbaugh, C.: Lippincotts Illustrated Reviews Immunology. Wolters Kluwer Health, 2021	
Languages necessary to complete the course: Slovak, English	
Notes: Teacher: doc. Mgr. Andrea Bilková, PhD., doc. Mgr. Martina Hrčka Dubníčková, 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/11	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: on-site learning, distance learning	
Number of credits: 5	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: The doctoral student obtains the evaluation completed with a credit value after submitting a written version thematically corresponding to the topic of the dissertation, research, theoretical introduction or project to the supervisor, the doctoral student obtains the evaluation completed with a credit value. The supervisor will give the evaluation to the doctoral student in the AIS and in the study report.	
Learning outcomes: The doctoral student under the guidance of the supervisor will demonstrate the ability to develop a search, theoretical introduction or project that thematically corresponds to the topic of the dissertation.	
Class syllabus: 1. The doctoral student prepares a research, theoretical introduction or project corresponding to the main topic of the dissertation under the guidance of the supervisor 2. The doctoral student presents a case study corresponding to the main topic of the dissertation in the presence of the supervisor	
Recommended literature: Current sources on the studied issues.	
Languages necessary to complete the course: Slovak language, English language	
Notes:	
Past grade distribution Total number of evaluated students: 618	
ABS	NEABS
99,51	0,49
Lecturers:	

Last change: 11.02.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/424-PhD/11	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: on-site learning, 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: 361	
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/806-PhD/11	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/11	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: on-site learning, 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: 29	
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/422-PhD/11	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: on-site learning, 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: 243	
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/421-PhD/11	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: on-site learning, 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: 24	
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/420-PhD/11	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: on-site learning, 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: 180	
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/11	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: on-site learning, distance learning	
Number of credits: 15	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: The course is successfully completed if the trained graduate in AIS-2 is enrolled in the evaluation of the course: Preparation of Diploma Thesis 1 or Preparation of Diploma Thesis 2 or Preparation of Diploma Thesis 3.	
Learning outcomes: The doctoral student will gain experience and acquire the skills necessary for leading the final work of a selected professional issue in the academic space at the 2nd level of university study within the field of study.	
Class syllabus: 1. The doctoral student methodically and professionally guides the student from the choice of topic to the successful defense of the final (diploma) thesis under the supervision of the thesis supervisor. 2. During the entire supervision of the final (diploma) thesis, the doctoral student is responsible for the administration of all requisites related to the final (diploma) thesis in AIS under the supervision of the thesis supervisor. 3. The doctoral student will prepare a certificate of completion of the final (diploma) thesis, which can be confirmed by the head of the department. The evaluation must be accompanied by evaluation assessments of the works. The confirmation signed by the head of the department serves as proof of successful fulfillment of the conditions for completing the course for the supervisor, who on the basis of it will award the evaluation (graduated) to the doctoral student in AIS and in the study report.	
Recommended literature: Current sources on the studied issues.	
Languages necessary to complete the course: Slovak language	
Notes:	

Past grade distribution	
Total number of evaluated students: 440	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 14.02.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/403-PhD/11	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: on-site learning, distance learning	
Number of credits: 0	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: Upon presentation of confirmation of completion of the course at another faculty of the university, the doctoral student is evaluated according to the specific credit evaluation of the course at the faculty.	
Learning outcomes: The doctoral student will gain knowledge of the subject at another faculty of the university.	
Class syllabus: The doctoral student is completing a designated subject at another faculty of the university at which he / she did not complete his / her second degree.	
Recommended literature: Current sources on the presented issues	
Languages necessary to complete the course: Slovak language	
Notes:	
Past grade distribution Total number of evaluated students: 13	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 11.02.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/401-PhD/11	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: on-site learning, 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: 569	
ABS	NEABS
99,3	0,7
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/411-PhD/11	Course title: Passing the Dissertation exam
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 203	
ABS	NEABS
99,51	0,49
Lecturers:	
Last change: 18.01.2022	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/804-PhD/11	Course title: Pathological Physiology
Number of credits: 0	
Educational level: III.	
Course requirements: Successfully passing 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: Mellová Y. a kol.: Anatómia človeka pre nelekárske študijné programy. Vydavateľstvo: Osveta, 2010, 2018. 184 s. Merkunová A, Orel M., Anatomie a fyziologie člověka. Vydavateľstvo: Grada, Psyché. 2008, 304 s. Čalkovská A.: Fyziológia človeka pre nelekárske študijné odbory. Vydavateľstvo: Osveta, 2010	

Javorka, K. a kol.: Lekárska fyziológia. Učebnica pre lekárske fakulty. Martin: Osveta, 2014. 744 s. Silbernagl, S., Despopoulos, A.: Atlas fyziologie člověka. 6. vyd. Praha: Grada Publishing, 2004, 448 s. Silbernagl, S., Lang, F.: Atlas patofyziologie. Praha: Grada, 2016. 404 s. Mohan, H.: Patológia. · Vydavateľstvo: Balneotherma, 2011. Plank, L., Hanáček J. a kol.: Patologická anatómia a patologická fyziológia. ·Vydavateľstvo: Osveta, 2007. Mačák J., Mačáková J., Dvořáčková J.. Patologie. 2.vydanie, Vydavateľstvo: Grada, 2012 Hulín, I. a kol.: Patofyziológia a klinická fyziológia pre magisterské a bakalárske štúdium. Bratislava: SAP, 2005. 593 s.
Languages necessary to complete the course: Slovak 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/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/11	Course title: Pedagogical activities - seminars
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 237	
ABS	NEABS
99,58	0,42
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/408-PhD/11	Course title: Pedagogical activity - exercises
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 471	
ABS	NEABS
99,79	0,21
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/11	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/11	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/11	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/11	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: - pharmacodynamics with respect to the mechanism of action of drugs - pharmacokinetics - pharmacogenomics - adverse effects of drugs - drug overdose - therapeutic use of drugs Special pharmacology - 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: Slovak language, 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/11	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: on-site learning, 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: 132	
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/417-PhD/11	Course title: Professional publications in domestic journal
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 71	
ABS	NEABS
98,59	1,41
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/416-PhD/11	Course title: Professional publications in international journals
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 15	
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/900-PhD/11	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: Tesař, T., Babel'a, R.: Hodnotenie zdravotníckych technológií. SAP, Bratislava, 2014, 96 s. 2. Foltán, V.: Sociálna farmácia. Osveta, Martin, 2010, 203 s. 3. Foltán, V. a kol.: Manažment, marketing a liek. Herba, Bratislava, 2010, 155 s. 4. Tesař, T., Foltán, V.: Zdravotná starostlivosť, náklady, kvalita a výsledky, 5. Výkladový terminologický slovník ISPOR, 2008, 238 s. 6. Foltán, V. a kol.: Odporúčania pre ATC klasifikáciu liečiv a stanovenie hodnoty DDD, 7. Kriška, M. a kol.: Memorix klinickej farmakológie. SAP, Bratislava, 2006, 879 s. vybrané časti 8. Tesař, T. a kol.: Lekárstvo a legislatíva, Osveta, Martin, 2017, 226 s.	
Languages necessary to complete the course:	

Slovak language, 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/11	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: on-site learning, 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: 147	
ABS	NEABS
99,32	0,68
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF/414-PhD/11	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: on-site learning, 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: 77	
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/11	Course title: The original publication in peer-reviewed domestic journals
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning, 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: 11	
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/412-PhD/11	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: on-site learning, 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: 226	
ABS	NEABS
99,12	0,88
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/11	Course title: Toxicology
Number of credits: 0	
Educational level: III.	
Course requirements: Successfully passing the exam.	
Learning outcomes: 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).	
Class syllabus: 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.	
State exam syllabus:	
Recommended literature: Tumová I.: Toxikológia pre farmaceutov, Herba, 2016 Mulder G.J.: Pharmaceutical toxicology, Pharmaceutical Press, 2006 Patočka J.: Úvod do obecné toxikológie. ISBN 80-86571-04-, Manus, Praha 2003 Horák J., Linhart I., Klusoň P.: Úvod do toxikológie a ekológie pro chemiky, 2004 Prokeš J.: Úvod do toxikológie, Praha, 2005 Prokeš J- et al. Základy toxikológie, Galén, 2005	
Languages necessary to complete the course: Slovak language, English language	
Notes: Lecturers: doc. PharmDr. Anna Paul Hrabovská, PhD.; doc. PharmDr. Marek Máťuš, PhD.; Mgr. Ondrej Sprušanský, PhD.; Mgr. Peter Vavrínek, PhD.; Mgr. Diana Vavrincová, PhD.	
Last change: 11.04.2022	
Approved by:	