



Sveučilište u Rijeci • Fakultet dentalne medicine
University of Rijeka • Faculty of Dental Medicine

Course: Pharmacology

Course Coordinator: Associate Professor Kristina Pilipović, MD, PhD

Department: Department of Basic and Clinical Pharmacology and Toxicology

Study program: Integrated Undergraduate and Graduate University Study of Dental Medicine

Study year: 2nd

Academic year: 2021/2022

SYLLABUS

Course description (a brief description of the course, general instructions, where and in what form the lessons are organized, necessary equipment, instructions for attendance and preparation for classes, student obligations, etc.):

The course **Pharmacology** is a compulsory course in the second year of the Integrated Undergraduate and Graduate University Study of Dental Medicine and consists of 30 hours of lectures, 15 hours of exercises and 45 hours of seminars, which makes a total of 90 hours of teaching (7.5 ECTS).

The aims of the course are to acquaint students with the basic principles of general and special pharmacology and rational pharmacotherapy, with special reference to the preparations used in dental practice. The planned outcome of the course is to enable students to acquire basic knowledge in the field of pharmacodynamics, pharmacokinetics and toxicology of individual drugs, prescription-writing skills for different forms of drugs and knowledge that will allow them to choose the right drug in clinical dental practice. The acquired knowledge should also enable an understanding of the use of drugs for various medical indications, which could interfere with dental diseases or cause oral side effects.

Assigned reading:

- Dowd FJ, Johnson BS, Mariotti AJ. Pharmacology and Therapeutics for Dentistry, 7th Edition, Mosby, St. Louis, MO, USA, 2017.
- Bradamante V, Klarica M, Šalković-Petrišić M, Edits. Pharmacology Manual, 1st Edition in English, Medicinska naklada, Zagreb, 2010.

Optional/additional reading:

- Katzung BG, Edit., Basic & Clinical Pharmacology, 14th Edition, McGraw-Hill Education, New York, USA, 2018.
- Ritter J., Flower R, Henderson G, Rang H. Rang & Dale's Pharmacology, 8th Edition, Elsevier, Churchill Livingstone, London, UK, 2015.

COURSE TEACHING PLAN:

The list of lectures (with topics and descriptions):

Lecture 1

Introductory Lecture: Definition and Division of Pharmacology

Learning outcomes

To acquaint students with the content, aims and the Syllabus for the course. Inform students about their rights and obligations. Be able to define and explain certain disciplines of pharmacology. Be able to explain the features of drug names.

Lecture 2

Drug Research and Development

Learning outcomes

To define and explain the development process and individual phases of research of new drugs.

Lecture 3

Pharmacokinetics: Absorption and Distribution of Drugs

Learning outcomes

To list the main ways of application of drugs, list their features and compare them. Explain how drugs can pass through body membranes. Acquire knowledge about the distribution of drugs in the blood and tissues.

Lecture 4

Pharmacokinetics: Biotransformation and Elimination of Drugs

Learning outcomes

Classify and explain the reactions involved in the process of biotransformation of drugs. Be able to list and describe the main routes of drug elimination.

Lecture 5

Pharmacotherapeutics: the Clinical Use of Drugs

Learning outcomes

Explain and know the principles on the basis of which drugs are applied. Explain curative, symptomatic and prophylactic treatment based on examples. Explain the specifics of special populations with regard to the use of drugs. Know the reasons that affect the need for individualization of treatment, i.e. the correct determination of the drug dose. Explain side effects and interactions in the elderly and in the pediatric population.

Lecture 6

Factors Affecting Drug Activity in the Body

Learning outcomes

To explain the drug characteristics that affect its activity in the body (chemical structure, quantity, dose, concentration, method and time of drug administration, rate of application, forms of medicinal preparation).

Lecture 7

Factors of the Organism That Affect the Activity of the Drug

To explain the characteristics of the organism that affect the activity of the drug (age, weight, sex). Understand and explain the types and causes of drug hypersensitivity.

Lecture 8

Use of Drugs in Pregnant and Lactating Women

Learning outcomes

Describe and explain the ways in which pregnancy affects pharmacokinetic and pharmacodynamic processes when using drugs. Be able to explain the potential teratogenic effects of drugs used in pregnancy. Explain the factors that affect the passage of drugs into breast milk and know which drugs, which are used during breastfeeding, are known to cause or may potentially cause adverse effects in children.

Lecture 9

Pharmacodynamics: Mechanisms of Drug Action

Learning outcomes

Explain and define the main determinants of the mechanisms of action of drugs.

Lecture 10

Pharmacology of the Autonomic Nervous System

Learning outcomes

Explain the different roles of sympathetic and parasympathetic innervation in the body. Be able to describe different types of cholinergic receptors and understand the consequences of their activation and blockade.

Lecture 11

Sedative-Hypnotics, Antianxiety Drugs and Centrally Acting Muscle Relaxants

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of sedatives-hypnotics and anxiolytics, and centrally acting muscle relaxants.

Lecture 12

Substances of Abuse

Learning outcomes

Analyze the features of the most commonly used addictive substances, the principles of their toxicity, and the symptoms of addiction and their treatment.

Lecture 13

Antineoplastic Drugs

Learning outcomes

Explain the role of chemotherapy in the treatment of patients with malignancies. Explain the mechanisms of action and the emergence of resistance to chemotherapeutics. Know the most significant side effects and toxic effects of this group of drugs.

The list of seminars with descriptions:

Seminar 1

Adrenergic Agonists and Antagonists

Learning outcomes

Understand and explain the effects of adrenergic receptor agonists and antagonists as well as indirect drugs with action on adrenergic activity.

Seminar 2

Cholinergic Agonists and Muscarinic Receptor Antagonists; Drugs Affecting Nicotinic Receptors

Learning outcomes

Understand and explain the effects of the use of agonists and antagonists of cholinergic receptors as well as indirect drugs with action on cholinergic activity.

Seminar 3

Anticonvulsants; Antiparkinson Drugs

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of anticonvulsants and antiparkinsonian drugs.

Seminar 4

Opioid Analgesics and Antagonists; Non-Opioid Analgesics; Nonsteroidal Antiinflammatory Drugs; Antirheumatic and Antigout Drugs

Learning outcomes

Explain the molecular mechanisms of action of drugs of certain groups of analgesics. List the types of opioid receptors and describe their functional roles. List the harmful effects of opioids, explain the main drug interactions, list the main contraindications to the use of morphine and its analogues, describe the characteristics of opioid tolerance and opioid dependence. Distinguish details and

differences of mechanisms of action, application, side effects and toxicity of individual nonsteroidal anti-inflammatory drugs.

Seminar 5

Psychopharmacology: Antipsychotic and Antidepressant Drugs

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of antipsychotics and antidepressants.

Seminar 6

Local Anesthetics; General Anesthesia

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of local and general anesthetics.

Seminar 7

Antianemic and Hematopoietic Stimulating Drugs; Anticoagulant, Antiplatelet, and Thrombolytic Drugs

Learning outcomes

Describe and explain the methods of administration of drugs with action on the blood and hematopoietic organs, mechanisms of their action, pharmacological effects, main indications, contraindications, side effects and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups. Analyze pharmacological effects, pharmacokinetic profile, adverse effects, indications and contraindications among drugs from different subgroups within the same drug group, and compare them with each other.

Seminar 8

Drugs Acting on the Respiratory System; Histamine and Histamine Antagonists

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of drugs used for pharmacotherapy of respiratory diseases and agents that act on the histamine system.

Seminar 9

Drugs Acting on the Gastrointestinal Tract

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of drugs used for pharmacotherapy of diseases of the digestive system.

Seminar 10

Drugs Acting on Cardiovascular Diseases I: Diuretic Drugs; Antihypertensive Drugs; Antianginal Drugs

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of drugs used in the treatment of hypertension, diuretics and drugs used in the treatment of angina pectoris.

Seminar 11

Drugs Acting on Cardiovascular Diseases II: Antiarrhythmic Drugs; Drugs Used In Heart Failure; Lipid-Lowering Drugs

Learning outcomes

Explain the mechanisms of action of the most commonly used antiarrhythmics. Describe the most significant side effects and toxic effects of individual representatives of different groups of antiarrhythmics. Explain the main pharmacodynamic and pharmacokinetic characteristics of drugs

used to treat heart failure. Describe the action of each class of hypolipidemics on serum lipid levels and describe and compare their mechanisms of action. Know the advantages and disadvantages of using combinations of hypolipidemics.

Seminar 12

Adrenal Corticosteroids; Bone Metabolism

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of adrenal cortex hormones, as well as their synthetic agonists and antagonists. Name and explain main characteristic of the drugs with act upon the bone metabolism.

Seminar 13

Insulin, Oral Hypoglycemics, and Glucagon; Pituitary, Thyroid and Parathyroid Pharmacology

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of drugs for the treatment of diabetes mellitus. Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of drugs for the treatment of thyroid disease.

Seminar 14

Steroid Hormones of Reproduction and Sexual Development

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of gonadotropins and sex hormones, as well as drugs that affect the reproductive system.

Seminar 15

Antibacterial drugs I: beta-lactamates, glycopeptides, sulfonamides, trimethoprim, fluoroquinolones

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of beta-lactamate, glycopeptides, sulfonamides, trimethoprim, fluoroquinolones.

Seminar 16

Antibacterial Drugs II: Aminoglycosides, Tetracyclines, Chloramphenicol, Macrolides, Clindamycin, Metronidazole

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects aminoglycosides, tetracyclines, chloramphenicol, macrolides, clindamycin, and metronidazole.

Seminar 17

Antibacterial Drugs III: Antituberculotics; Antifungals; Antivirals

Learning outcomes

Explain the main pharmacodynamic and pharmacokinetic characteristics and the most significant side effects of antituberculotics, antifungals and antivirals.

The list of practicals with descriptions:

Seminar/practical 1

Antiseptics and Disinfectants

Learning outcomes

List and describe the most important antiseptics and disinfectants.

Seminar/practical 2

Medicines for Topical Use in Dentistry; Fluorides and Preparations for Oral Hygiene

Learning outcomes

Explain the main characteristics and the most significant side effects of topical medications in dentistry, fluoride and oral hygiene products.

Practical 1

Prescription Writing I

Learning outcomes

Explain what a recipe is, its parts, ways of prescribing recipes. Define general guidelines and rules for prescribing medications. Classify certain types of pharmacological preparations. Prescribe recipes for magistral and galenic preparations.

Practical 2

Prescription Writing II

Learning outcomes

Define the classification of medicines, know how to prescribe prescriptions for finished drugs and for various forms of medicinal preparations.

Students' obligations:

Students are obligated to regularly attend and actively participate in classes. Students are allowed to be absent at a maximum of 18 hours of seminars/practicals. It is compulsory to follow and act in accordance with notifications and rules regarding attendance, absence, partial exams, corrections of partial exams, final exam, etc., which will be presented at the first lecture. Additional information and rules will be announced on a regular basis and on time on the SharePoint portal of the Department and on the Merlin platform.

Assessment (exams, description of written/oral/practical exam, the scoring criteria):

Student grading is conducted according to the current Ordinance on Studies of the University of Rijeka.

During the classes, students can achieve a maximum of 70% (70 points) of the final grade from the course, and the other 30% of the grade (30 points) is achieved at the final exam.

During classes, different activities are scored:

A. acquired knowledge on partial tests: test I and test II on which it is possible to achieve 20 points each, and test III on which it is possible to achieve 25 points, which makes a maximum of 65 points in total, and

B. colloquium in pharmacography: 5 points maximum.

The total maximum sum of points that can be achieved during classes and at the final exam is as follows:

Classes	Partial test I	20
	Partial test II	20
	Partial test III	25
	Colloquium in Pharmacography	5
Total (course)		70
Final exam		30
Total points		100

A. Partial tests

Test I covers topics in the Syllabus L1-8. Test I will be taken on May 26, 2022.

Test II covers topics in the Syllabus L9-11, S1-6. Test II will be taken on June 2, 2022.

Test III covers topics in the Syllabus L12, S7-18, SP1-2. Test III will be taken on June 10, 2022.

On partial tests, points will be earned according to the following schemes:

Partial tests I i II		Partial test III	
Number of correct answers	Number of points	Number of correct answers	Number of points
20	20	25	25
19	19	24	24
18	18	23	23
17	17	22	22
16	16	21	21
15	15	20	20
14	14	19	19
13	13	18	18
12	12	17	17
10-11	11	16	16
8-9	10	14-15	15
0-7	0	12-13	14
		10-11	13
		0-9	0

Corrections of partial tests will be organized for students who did not pass them as well as for students who want to improve the number of points gained by taking previous tests. In the latter case, the number of points earned on the correction will be counted as the final result! Test corrections will also be organized for students who did not access them, for which they should have a justifiable reason, which they are obliged to explain in writing. They are obliged to address the written submission to the head of the course, Assoc Prof Kristina Pilipović, to file it, and hand it over to the office of the Department, as of June 10, 2022. Corrections of the tests will be organized in the week of June 20-24, 2022, in the same form as the tests themselves, and the exact time and manner of holding the corrections will be agreed upon subsequently with the students.

B. Colloquium in Pharmacography

The pre-exam colloquium in Pharmacography includes the material of exercises V1-V2. It consists of a written part where you will need to prescribe 5 prescriptions (0.5 points per prescription, maximum 2.5 points) and an oral part (minimum 1, maximum 2.5 points). A student who does not prescribe 2 prescriptions correctly, i.e. achieves less than 1 point, cannot access the oral part of the colloquium. The scoring of success on the oral part of the colloquium in Pharmacography is as follows: excellent (5) - 2.5 points; very good (4) - 2 points; good (3) - 1.5 points; sufficient (2) - 1 point. Each part of the colloquium (both written and oral) must be positively graded in order for the colloquium to be considered passed, i.e. the student must achieve at least 1 point in the oral part of the colloquium.

Students who are not satisfied with the result achieved at the pre-exam colloquium in Pharmacography can try to correct it only once, in one of the scheduled terms. In that case, the number of points earned on the correction will be counted as the final result!

The terms for the pre-exam colloquia in Pharmacography are: June 15, 2022, June 29, 2022, July 13, 2022, September 7, 2022 and September 21, 2022. The times and places will be announced later on the Sharepoint portal and on Merlin e-learning platform.

C. Final exam

Only students who have achieved at least 35 points during their studies can take the final exam in Pharmacology, in accordance with the Regulations on Studies of the University of Rijeka. Students who achieved less than 50% of the grades that could be achieved during the course (i.e. less than 35 points), do not have the right to take the final exam and are graded F (unsuccessful), cannot gain ECTS credits and must again enter the course.

The final exam consists of a written and an oral part. Each part of the final exam must be positively graded in order for the exam to be considered passed! The written part of the final exam is graded according to the scheme:

Number of correct answers	Number of points
50-47	10
46-43	9
42-38	8
37-33	7
32-29	6
28-25	5
0-24	0

Candidates who do not pass at least 50% of the final test cannot take the oral part of the exam. The oral part of the final exam is mandatory for all students! The maximum number of points obtained in the oral exam is 20. For a grade sufficient in this part of the exam, the student gets 10, for a grade of good 14, for a grade of very good 17, and for a grade of excellent 20 points.

Final grade

The final grade is formed on the basis of the results obtained during the class, and the grade obtained at the final exam as follows:

Percent/credits for the acquired knowledge, skills and competences (course + final exam)	Numerical grading system	ECTS system
90 - 100%	5 (excellent)	A
75 - 89,9%	4 (very good)	B
60 – 74,9%	3 (good)	C
50 - 59,9%	2 (sufficient)	D
0 - 49,9%	1 (insufficient)	F

Other important information regarding to the course:

Course content and information related to the course will be regularly published on the Sharepoint portal of the University of Rijeka and through the Merlin e-learning platform.

COURSE SCHEDULE (for academic year 2021/2022)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
23/05/2022	L1 (8:00-10:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
23/05/2022	L2 (10:00-13:00) Department of Basic and Clinical Pharmacology and Toxicology			Prof Dinko Vitezić, MD, PhD
23/05/2022	L3 (13:00-15:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
24/05/2022	L4 (8:00-10:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
24/05/2022	L5 (10:00-13:00) Lecture Room 5			Prof Dinko Vitezić, MD, PhD
24/5/2022	L6 (13:00-15:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
25/05/2022	L7 (8:00-10:00) Department of basic and clinical pharmacology and toxicology			Assoc Prof Kristina Pilipović, MD, PhD
25/05/2022	L8 (10:00-12:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
25/05/2022	L9 (12:00-14:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
26/05/2022	Partial test I (8:00-9:00)			
26/05/2022		S1 (9:00-12:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
26/05/2022		S2 (12:00-15:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD

27/05/2022		S3 (8:00-11:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
27/05/2022		S4 (11:00-14:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
31/05/2022	L10 (8:00-10:00) Department of Basic and Clinical Pharmacology and Toxicology			Prof Jasenka Mršić Pelčić, MD, PhD
31/05/2022	L11 (10:00-12:00) Department of Basic and Clinical Pharmacology and Toxicology			Prof Jasenka Mršić Pelčić, MD, PhD
31/05/2022	L12 (12:00-15:00) Department of Basic and Clinical Pharmacology and Toxicology			Assoc Prof Kristina Pilipović, MD, PhD
01/06/2022		S5 (8:00-10:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
01/06/2022		S6 (10:00-13:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
02/06/2022	Partial test II (8:00-9:00)			
02/06/2022		S7 (9:00-11:00) Department of Basic and Clinical Pharmacology and Toxicology		Assoc Prof Kristina Pilipović, MD, PhD
02/06/2022		S8 (11:00-14:00) Department of Basic and Clinical Pharmacology and Toxicology		Assoc Prof Kristina Pilipović, MD, PhD
02/06/2022		S9 (14:00-16:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
03/06/2022		S10 (8:00-11:00) Department of Basic and		Petra Dolenec, MA in Biol., PhD

		Clinical Pharmacology and Toxicology		
03/06/2022		S11 (11:00-14:00) Department of Basic and Clinical Pharmacology and Toxicology		Assoc Prof Kristina Pilipović, MD, PhD
06/06/2022		S12 (8:00-10:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
06/06/2022		S13 (10:00-13:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
06/06/2022		S14 (13:00-15:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
07/06/2022		S15 (8:00-11:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
07/06/2022		S16 (11:00-14:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
08/06/2022		S17 (8:00-10:00) Department of Basic and Clinical Pharmacology and Toxicology		Petra Dolenec, MA in Biol., PhD
08/06/2022			SP1 (10:00-12:00) Department of Basic and Clinical Pharmacology and Toxicology	Ljerka Delač, MD
09/06/2022			SP2 (8:00-11:00) Department of Basic and	Jelena Rajič Bumber, MA in Biol.

			Clinical Pharmacology and Toxicology	
09/06/2022	L13 (11:00-15:00) Department of Basic and Clinical Pharmacology and Toxicology			Asst Prof Marko Skelin, PhD
10/06/2022	Partial test III (8:00-9:00)			
10/06/2022			P1 (9:00-14:00) Department of Basic and Clinical Pharmacology and Toxicology	Ljerka Delač, MD
13/06/2022			P2 (8:00-13:00) Department of Basic and Clinical Pharmacology and Toxicology	Ljerka Delač, MD

List of lectures, seminars, and practicals:

	LECTURES (Topics)	Teaching hours	Location/Lecture room
L1	Introductory Lecture: Definition and Division of Pharmacology	2	Department of Basic and Clinical Pharmacology and Toxicology
L2	Drug Research and Development	3	Department of Basic and Clinical Pharmacology and Toxicology
L3	Pharmacokinetics: Absorption and Distribution of Drugs	2	Department of Basic and Clinical Pharmacology and Toxicology
L4	Pharmacokinetics: Biotransformation and Elimination of Drugs	2	Department of Basic and Clinical Pharmacology and Toxicology
L5	Pharmacotherapeutics: the Clinical Use of Drugs	3	Department of Basic and Clinical Pharmacology and Toxicology
L6	Factors Affecting Drug Activity in the Body	2	Department of Basic and Clinical Pharmacology and Toxicology
L7	Factors of the Organism That Affect the Activity of the Drug	2	Department of Basic and Clinical Pharmacology and Toxicology
L8	Use of Drugs in Pregnant and Lactating Women	2	Department of Basic and Clinical Pharmacology and Toxicology
L9	Pharmacodynamics: Mechanisms of Drug Action	2	Department of Basic and Clinical Pharmacology and Toxicology
L10	Pharmacology of the Autonomic Nervous System	2	Department of Basic and Clinical Pharmacology and Toxicology
L11	Sedative-Hypnotics, Antianxiety Drugs and Centrally Acting Muscle Relaxants	2	Department of Basic and Clinical Pharmacology and Toxicology
L12	Substances of Abuse	3	Department of Basic and Clinical Pharmacology and Toxicology
L13	Antineoplastic Drugs	3	Department of Basic and Clinical Pharmacology and Toxicology
	TOTAL TEACHING HOURS	30	

	SEMINARS (Topics)	Teaching hours	Location/Lecture room
S1	Adrenergic Agonists and Antagonists	3	Department of Basic and Clinical Pharmacology and Toxicology
S2	Cholinergic Agonists and Muscarinic Receptor Antagonists; Drugs Affecting Nicotinic Receptors	3	Department of Basic and Clinical Pharmacology and Toxicology
S3	Anticonvulsants; Antiparkinson Drugs	3	Department of Basic and Clinical Pharmacology and Toxicology
S4	Opioid Analgesics and Antagonists; Non-Opioid Analgesics; Nonsteroidal Antiinflammatory Drugs; Antirheumatic and Antigout Drugs	3	Department of Basic and Clinical Pharmacology and Toxicology
S5	Psychopharmacology: Antipsychotic and Antidepressant Drugs	2	Department of Basic and Clinical Pharmacology and Toxicology
S6	Local Anesthetics; General Anesthesia	3	Department of Basic and Clinical Pharmacology and Toxicology

S7	Antianemic and Hematopoietic Stimulating Drugs; Anticoagulant, Antiplatelet, and Thrombolytic Drugs	2	Department of Basic and Clinical Pharmacology and Toxicology
S8	Drugs Acting on the Respiratory System; Histamine and Histamine Antagonists	3	Department of Basic and Clinical Pharmacology and Toxicology
S9	Drugs Acting on the Gastrointestinal Tract	2	Department of Basic and Clinical Pharmacology and Toxicology
S10	Drugs Acting on Cardiovascular Diseases I: Diuretic Drugs; Antihypertensive Drugs; Antianginal Drugs	3	Department of Basic and Clinical Pharmacology and Toxicology
S11	Drugs Acting on Cardiovascular Diseases II: Antiarrhythmic Drugs; Drugs Used In Heart Failure; Lipid-Lowering Drugs	3	Department of Basic and Clinical Pharmacology and Toxicology
S12	Adrenal Corticosteroids; Bone Metabolism	2	Department of Basic and Clinical Pharmacology and Toxicology
S13	Insulin, Oral Hypoglycemics, and Glucagon; Pituitary, Thyroid and Parathyroid Pharmacology	3	Department of Basic and Clinical Pharmacology and Toxicology
S14	Steroid Hormones of Reproduction and Sexual Development	2	Department of Basic and Clinical Pharmacology and Toxicology
S15	Antibacterial Drugs I: Beta-Lactamates, Glycopeptides, Sulfonamides, Trimethoprim, Fluoroquinolones	3	Department of Basic and Clinical Pharmacology and Toxicology
S16	Antibacterial Drugs II: Aminoglycosides, Tetracyclines, Chloramphenicol, Macrolides, Clindamycin, Metronidazole	3	Department of Basic and Clinical Pharmacology and Toxicology
S17	Antibacterial Drugs III: Antituberculosics; Antifungals; Antivirals	2	Department of Basic and Clinical Pharmacology and Toxicology
TOTAL TEACHING HOURS		45	

	PRACTICALS (Topics)	Teaching hours	Location/Lecture room
SP1	Antiseptics and Disinfectants	2	Department of Basic and Clinical Pharmacology and Toxicology
SP2	Medicines for Topical Use in Dentistry; Fluorides and Preparations for Oral Hygiene	3	Department of Basic and Clinical Pharmacology and Toxicology
P1	Prescription Writing I	5	Department of Basic and Clinical Pharmacology and Toxicology
P2	Prescription Writing II	5	Department of Basic and Clinical Pharmacology and Toxicology
TOTAL TEACHING HOURS		15	

	FINAL EXAM DATES
1.	17/06/2022
2.	01/07/2022
3.	15/07/2022
4.	09/09/2022
5.	23/09/2022