

Pharmacology
University of Mostar School of Medicine
Academic year 2023/2024

1. Class schedule – list of lectures, seminars, and exercises:

<u>Lectures (P):</u>	<u>number of hours:</u>
P1. Introduction, absorption, distribution of drugs	2
P2. Metabolism and drug elimination, pharmacokinetics	2
P3. Drug action mechanisms, pharmacodynamics	2
P4. Pharmacology of ANS, cholinergic drugs	2
P5. Pharmacology of ANS, adrenergic drugs	2
P6. Pharmacology of histamine, serotonin, and ergot alkaloids, NO	2
P7. Anxiolytics, sedatives – hypnotics, antiepileptics	2
P8. Pharmacotherapy of most common neurodegenerative diseases	2
P9. Antipsychotics, antidepressants	2
P10. Opioid analgesics	2
P11. General and local anesthetics	2
P12. Addictions (heroin, cannabis, psychostimulants, alcohol)	2
P13. Drugs for hypertension treatment	2
P14. Vasodilators in angina pectoris treatment	2
P15. Diuretics	2
P16. Drugs for heart failure treatment	2
P17. Drugs for treatment of arrhythmias	2
P18. Drugs for asthma treatment	2
P19. Drugs for coagulation disorders	2
P20. Pancreatic hormones and drugs in diabetes treatment	2
P21. Antimicrobial drugs	2
P22. Drugs for malignant diseases treatment	2
P23. Immunopharmacology	2
P24. Drugs for peptic disease and laxatives	2
P25. Antidiarrhoeal drugs, antiemetics, and inflammatory bowel disease drugs	2

<u>Seminars (S):</u>	<u>Number of hours:</u>
S1. New drug discoveries, generic drugs, and pharmacogenomics	2
S2. Drug's final outcome in the organism	2
S3. Actions of drugs, mechanisms of side effects	2
S4. Cholinergic drugs	2
S5. Adrenergic drugs	2
S6. Anxiolytics, antiepileptics, neurodegenerative diseases	2
S7. Antipsychotics, antidepressants	2
S8. Nonsteroidal anti-inflammatory drugs, antirheumatics	2
S9. Pain treatment	2
S10. General and local anesthetics	2
S11. Antihypertensives, drugs in angina pectoris treatment	2

S12. Drugs in cardiac insufficiency treatment	2
S13. Drugs for treatment of arrhythmias	2
S14. Drugs for treatment of hyperlipoproteinemias	2
S15. Drugs for treatment of anemias and hematopoietic growth factors	2
S16. Hormones of hypothalamus, pituitary gland, thyroid gland, and osteoporosis	2
S17. Hormones of the adrenal gland cortex and their antagonists	2
S18. Sex hormones and their inhibitors	2
S19. Drugs in diabetes treatment	2
S20. Most important antibiotics	2
S21. Drugs in treatment of fungi, protozoa, and helminths	2
S22. Drugs for viral and TBC infections	2
S23. Application of drugs in children and elderly patients	2
S24. Drug interactions and side effects	2
S25. Pharmacology of the digestive system	2

Exercises (V): Number of hours:
(video presentations, computer simulations, experimental animals)

V1. Pharmacokinetics and pharmacodynamics	4
V2. ANS, isolated muscle	4
V3. Psychopharmacology drugs	2
V4. Analgesics	2
V5. Effects of drugs on cardiovascular system	4
V6. Isolated organs as pharmacological models	2
V7. Dose calculations, ways of different drug administration	2

Pharmacography:

Fg1. Introduction, magisterial preparations 1	4
Fg2. Magisterial preparations 2	4
Fg3. Galenic preparations and commercially available drugs	4
Fg4. Repetition and children doses	3

Total number of hours: $50 P + 50 S + 35 V = 135$ hours

Literature:

Mandatory:

- Bertram G. Katzung, Susan B. Masters, Anthony J. Trevor: Basic and Clinical Pharmacology, 14th edition.
- V. Bradamante, M. Klarica, M. Šalković – Petrišić, (ur): Farmakološki priručnik (Pharmacology manual). Medicinska naklada, Zagreb, 2008

Additional literature:

1. H.P. Rang, M.M. Dale, J.M. Ritter, P.K. Moore: Pharmacology. Golden marketing 2006.

Exam:

The exam consists of two „partial“ written test. Only the students that pass both of the tests can take the oral exam. Students that do not pass neither of the partial tests, take both of the tests in form of one writenn test at the regular exams. If a student passes one written test, and fails another, he or she will only take the one that is not passed during regular exam. Also, to approach the final exam, students must pass the pharmacography colocvium where it is necessary to demonstrate skills of proper prescripton writing. Colocvium is being organized immediately after the end of the Pharmacology course. If a student does not pass the pharmacography colocvium at that occassion, he or she will have an opportunity to take the colocvium during regular exams. To take the exam, student must fullfill all of its duties in terms of regular class attending and other obligations during the course.

Further clarification:

Conditions to take the Pharmacology exam are regular attendance at classes and passing the pharmacography test. Pharmacology exam consists of written (test) and oral part. Each of them contributes 50% to the final grade. During the Pharmacology course two partial written tests are done. First partial test consists out of 50 questisons, and second partial test consists out of 60 questions. Students that makes total of 69 points on both of the partial tests can take the final oral exam. If student did not meet the 69 point mark on the partial tests, student can take the final written exam that consists out of 110 questions. To take the oral exam students must pass the final written test with minimum of 69 points.

Final written exam grading:

A = 100 - 110 points (5)

B = 90 - 99 points (4)

C = 80 – 89 points (3)

D = 69 - 79 points (2)

F = 0 - 68 points (1)

According to the regulations of the study, final grade is obtained:

A = 91-100% 5

B = 79 to 90% 4

C = 67 to 78% 3

D = 55 to 66% 2

F = 0 to 54% 1

Teachers:

1. associate professor Ivica Brizić, MD, PhD (Department Head)
2. professor Mladen Boban, MD, PhD
3. associate professor Ivana Mudnić, MD, PhD

4. assistant professor Ivan Merdžo, MD, PhD (Medical studies in English – Pharmacology course director)
(email: imerdzo@gmail.com; ivan.merdzo@mef.sum.ba)
5. Assistant professor Diana Jurić, PhD, MPharm
6. Daria Ostojić, MD
7. Ivana Matic, MPharm
8. Dalibor Raspudić, MD
9. Martina Vukoja, MPharm