



PHARMACY
INTEGRATED ACADEMIC
STUDIES

FIFTH YEAR OF STUDY

2025/2026.

CLINICAL PHARMACY 3

Title of course:

CLINICAL PHARMACY 3

This course is assigned 6 ECTS credits. It consists of 4 active teaching hours per week (2 teaching hours of lectures and 2 teaching hours of practical classes).

TEACHERS:

	Name and surname	E-mail	Title
1.	Aleksandra Stojanovic*	vranicaleksandra90@gmail.com	Assistant professor
2.	Tamara Nikolic Turnic	tnikolic@gmail.com	Associate professor
3.	Radisa Pavlovic	rpavlovic@medf.kg.ac.rs	Associate professor
4.	Olivera Kostic	olivera.kostic@fmn.kg.ac.rs	Associate professor
5.	Milena Jurisevic	milena.jurisevic13@gmail.com	Associate professor
9.	Natasa Mijailovic	nacakg@gmail.com	Assistant professor
10.	Katarina Mihajlovic	katarina.mihajlovic@fmn.kg.ac.rs	Assistant professor
11.	Marko Ravic	markoravic@hotmail.com	Assistant
12.	Katarina Djordjevic	kacka96kg@gmail.com	Assistant
13.	Bozidar Pindovic	pindovic.bozidar@gmail.com	Assistant

* Head of Course

STRUCTURE OF COURSE:

Module	The name of module	Week	Lectures	Practical classes	Seminars	Lecturer
1.	Use of drugs during pregnancy and lactation	5	2	2	1	Aleksandra Stojanovic
2.	Specific manifestations and presentations of diseases in geriatrics	5	2	2	1	Aleksandra Stojanovic
3.	Specific manifestations and presentations of diseases in pediatrics	5	2	2	1	Aleksandra Stojanovic
						$\Sigma 30+30+15=75$

GRADING:

The student masters the subject by activity and written exam. The grade is equivalent to the number of points won (see tables). Points are earned in two ways:

ACTIVITY DURING THE LESSON: In this way, the student can win up to 30 points by taking 2 exam questions from that week's class at the last lesson in a small group, answering them and getting 0 - 2 points according to the demonstrated knowledge.

FINAL EXAM: In this way, the student can gain 70 points.

The final grade is formed as follows:

In order to pass the course, the student must achieve a minimum of 51 points and pass all modules.

To pass the module the student must:

1. achieve more than 50% of the points provided for the activity in class
3. pass the final exam, i.e. have more than 50% correct answers.

Grading system		
Grade	Total No of points	Description
10	91-100	Excellent
9	81-90	Exceptionally good
8	71-80	Very good
7	61-70	Good
6	51-60	Passing
5	< 51	Failing

OTHER RULES

The student is obliged to properly fulfill his obligations in class.

A student who is absent from lectures receives 0 points for activity in the exercises (for that week).

A student who fails to fulfill the pre-examination obligations can submit a reasoned request for reimbursement of those obligations, which is decided by the committee appointed by the Dean.

Students can make up for missed lessons for a maximum of two weeks per semester without financial compensation.

A student who is absent from classes for more than two and maximum up to five weeks during the semester, is obliged to submit an application to the committee in which he should state the reasons for the absence.

Absence from classes longer than five weeks implies re-enrollment of that course.

Missed classes are made up in the last week of classes.

LITERATURE:

1. Hilal-Dandan R, Brunton L. Goodman And Gilman Manual Of Pharmacology And Therapeutics, Second Edition, (Int'l Ed). McGraw Hill. 2014.
2. Trevor A, Katzung B. Basic and Clinical Pharmacology, 15th Edition, International Edition. McGraw Hill. 2020.
3. Chisholm-Burns M, Schwinghammer T, Wells B, Malone P, Dipiro J, Kolesar J. Pharmacotherapy Principles and Practice, 4th Edition. McGraw Hill. 2016.

SCHEDULE:

COURSE UNIT 1 (WEEK 1): Lectures: 2 hours Inositols in the function of growth and autoimmunity of the thyroid gland	Practical classes: 2 hours Nutritional supplements in thyroid disease
COURSE UNIT 2 (WEEK 2): Lectures: 2 hours Drugs that act on the central nervous system in pregnancy and lactation	Practical classes: 2 hours Clinical assessment instruments in psychiatry; "Hamilton Anxiety Rating Scale"
COURSE UNIT 3 (WEEK 3): Lectures: 2 hours Cardiovascular drugs in pregnancy and lactation	Practical classes: 2 hours Nonsteroidal anti-inflammatory drugs.
COURSE UNIT 4 (WEEK 4): Lectures: 2 hours Drugs that affect the respiratory system during pregnancy and lactation	Practical classes: 2 hours Practical application of drugs using a nebulizer. Application of drugs by inhalation, action on salivary glands and saliva. Dental erosions and carious changes in patients on long-term inhalation therapy.
COURSE UNIT 5 (WEEK 5): Lectures: 2 hours Antimicrobial drugs in pregnancy and lactation	Practical classes: 2 hours Application of antimicrobial drugs in dentistry
COURSE UNIT 6 (WEEK 6): Lectures: 2 hours Chronic fatigue syndrome	Practical classes: 2 hours Hypochondria, neurasthenia, chronic fatigue syndrome. Musculoskeletal diseases, pain therapy

COURSE UNIT 7 (WEEK 7): Lectures: 2 hours Caring for patients with schizophrenia. Augmentation techniques in therapy-resistant patients	Practical classes: 2 hours Schizophrenia and comorbidity (psychiatric and somatic disorders)
COURSE UNIT 8 (WEEK 8): Lectures: 2 hours Celiac disease. Celiac crisis. Gluten intolerance	Practical classes: 2 hours Intolerance to lactose and other carbohydrates
COURSE UNIT 9 (WEEK 9): Lectures: 2 hours Epileptic seizures and epilepsy. New generation antidepressants	Practical classes: 2 hours Insomnia therapy. Orexin agonist
COURSE UNIT 10 (WEEK 10): Lectures: 2 hours Skin pharmacology	Practical classes: 2 hours Allergies, allergic rhinitis, urticaria. Long-term local (topical) use of NSAIDs
COURSE UNIT 11 (WEEK 11): Lectures: 2 hours Anticoagulant, fibrinolytic and antiplatelet therapy	Practical classes: 2 hours Treatment with antiplatelet drugs. Antiplatelet therapy within the comprehensive treatment of Diabetes Mellitus
COURSE UNIT 12 (WEEK 12): Lectures: 2 hours Insulin resistance	Practical classes: 2 hours Insulin resistance: symptoms, treatment, nutrition
COURSE UNIT 13 (WEEK 13):	Practical classes: 2 hours

Lectures: 2 hours Physiological regulation of energy balance. Obesity	Pharmacological therapy of obesity <i>2013</i> <i>AHA/ACC/TOS</i> <i>Guideline for the Management of Overweight and Obesity in Adults</i>
COURSE UNIT 14 (WEEK 14): Lectures: 2 hours A rational approach to estrogen administration in postmenopausal women. Endocrine disorders of the breast. Reproductive health care.	Practical classes: 2 hours Physiology of the female reproductive system. Self-testing, possibilities and dilemmas PCOS - polycystic ovarian syndrome: diagnostic criteria, therapy, application of inositol.
COURSE UNIT 15 (WEEK 15): Lectures: 2 hours Diseases caused by damage to the immune system. Non-specific clinical use of adrenal steroids.	Practical classes: 2 hours Osteoarthritis

LESSON SCHEDULE FOR COURSE CLINICAL PHARMACY 3

week	type	Title	Teacher
1	L	Inositols in the function of growth and autoimmunity of the thyroid gland	Aleksandra Stojanovic, Lecturer
	P	Nutritional supplements in thyroid disease	Katarina Djordjevic Bozidar Pindovic
2	L	Drugs that act on the central nervous system in pregnancy and lactation	Natasa Mijailovic, Lecturer
	P	Clinical assessment instruments in psychiatry; "Hamilton Anxiety Rating Scale"	Katarina Djordjevic Bozidar Pindovic
3	L	Cardiovascular drugs in pregnancy and lactation	Olivera Kostic, Lecturer
	P	Nonsteroidal anti-inflammatory drugs. Comfrey (<i>Symphytum officinale</i>). <i>Arnica montana</i>	Bozidar Pindovic Marko Ravic
4	L	Drugs that affect the respiratory system during pregnancy and lactation	Radisa Pavlovic, Lecturer
	P	Practical application of drugs using a nebulizer. Application of drugs by inhalation, action on salivary glands and saliva. Dental erosions and carious changes in patients on long-term inhalation therapy.	Katarina Djordjevic Marko Ravic

LESSON SCHEDULE FOR COURSE CLINICAL PHARMACY 3

module	week	type	Title	Teacher
1	5	L	Antimicrobial drugs in pregnancy and lactation	Katarina Mihajlovic, Lecturer
		P	Application of antimicrobial drugs in dentistry	Katarina Djordjevic Bozidar Pindovic
2	6	L	Chronic fatigue syndrome	Aleksandra Stojanovic, Lecturer
		P	Hypochondria, neurasthenia, chronic fatigue syndrome. Musculoskeletal diseases, pain therapy	Katarina Djordjevic Bozidar Pindovic
	7	L	Caring for patients with schizophrenia. Augmentation techniques in therapy-resistant patients	Milena Jurisevic, Lecturer
		P	Schizophrenia and comorbidity (psychiatric and somatic disorders)	Bozidar Pindovic Marko Ravic
	8	L	Celiac disease. Celiac crisis. Gluten intolerance	Aleksandra Stojanovic, Lecturer
		P	Intolerance to lactose and other carbohydrates	Katarina Djordjevic Marko Ravic

LESSON SCHEDULE FOR COURSE CLINICAL PHARMACY 3

module	week	type	Title	Teacher
2	9	L	Epileptic seizures and epilepsy	Natasa Mijailovic, Lecturer
		P	Insomnia therapy, orexin receptor antagonist	Marko Ravic Bozidar Pindovic
	10	L	Skin pharmacology	Aleksandra Stojanovic, Lecturer
		P	Allergies, allergic rhinitis, urticaria. Long-term local (topical) use of NSAIDs	Katarina Djordjevic Bozidar Pindovic
3	11	L	Anticoagulant, fibrinolytic and antiplatelet therapy	Aleksandra Stojanovic, Lecturer
		P	Treatment with antiplatelet drugs. Antiplatelet therapy within the comprehensive treatment of Diabetes Mellitus	Katarina Djordjevic Bozidar Pindovic
	12	L	Insulin resistance	Katarina Mihajlovic, Lecturer
		P	Insulin resistance: symptoms, treatment, nutrition	Katarina Djordjevic Marko Ravic

week	type	Title	Teacher
13	L	Physiological regulation of energy balance. Obesity	Aleksandra Stojanovic, Lecturer
	P	Pharmacological therapy of obesity <i>2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults</i>	Marko Ravic Bozidar Pindovic
14	L	A rational approach to estrogen administration in postmenopausal women. Endocrine disorders of the breast. Reproductive health care.	Natasa Mijailovic , Lecturer
	P	Physiology of the female reproductive system. Self-testing, possibilities and dilemmas of PCOS - polycystic ovarian syndrome: diagnostic criteria, therapy, application of inositol	Katarina Djordjevic Bozidar Pindovic
15	L	Diseases caused by damage to the immune system. Nonspecific clinical use of adrenal steroids.	Tamara Nikolic Turnic, Lecturer
	P	Osteoarthritis	Katarina Djordjevic Bozidar Pindovic