

SUBJECT DESCRIPTION

PATHOPHYSIOLOGY

1. . Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Pathophysiology						
2.2. Holder of the course activities	Senior lecturer Jipa Radu PhD						
2.3. Holder of the seminar activities	Senior lecturer Jipa Radu PhD Univ. assist. Butari Denis PhD candidate						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	Ex	2.7. Subject regime	DF

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	4	3.2. out of which course	2	3.3. Seminar / laboratory	2
3.4. Total hours in the curriculum	56	3.5. out of which course	28	3.6. Seminar / laboratory	28
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					14
Additional documentation in the library, on the digital specialised platforms and on site					13
Preparing seminars/ laboratories, topics, reports, portfolios and essays					9
Mentoring					2
Examinations					4
Other activities: scientific clubs, open day					2
3.7. Total hours of individual study	44				
3.8. Total hours per semester	100				
3.9. Number of credit units	4				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	-
4.2. Competencies-related	-

5. Requirements (where applicable)

5.1. for developing the course	Classroom equipped with video projector, laptop, smart board, internet access and teaching materials specific to the subject
5.2. for developing the seminar/ laboratory	The practical work room equipped with a video projector, laptop, blackboard and teaching materials necessary for conducting practical activities and interpreting biological and paraclinical investigations.

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student/graduate identifies, describes, explains and classifies the mechanisms of disease production, risk factors, pathogens (bacteria, viruses, parasites) and types of immune response, as well as the development of pharmacological and genetic approaches.	The student/graduate correctly interprets and applies the fundamental notions regarding the mechanisms of disease production and the methods of investigating biological functions.	The student/graduate integrates fundamental notions and methods of investigation of biological functions, formulates and assumes reasoned conclusions regarding the general mechanisms of disease production and general principles of treatment.
2	The student explains the mechanisms of inflammation, metabolic disorders and	The student interprets the results of biological and paraclinical investigations used in the	The student collaborates effectively within the medical team for the integration of clinical and paraclinical

¹ The learning results must be selected from among the three groups.

	hydroelectrolyte and acid-base imbalances.	evaluation of pathological processes.	information.
3	The student describes the relationship between etiological factors, pathogenesis and clinical manifestations of diseases.	The student uses pathophysiological reasoning to explain cause-effect relationships in the disease process.	The student respects the ethical and deontological principles in the teaching and professional activity.
4	The student knows the pathophysiological principles underlying the main diseases of the organs and systems.	The student analyses and interprets simple clinical cases from the perspective of the pathophysiological mechanisms involved.	The student demonstrates interest in continuous professional development and updating of medical knowledge.
5	The student identifies the compensatory and adaptive mechanisms of the organism in different pathological states.	The student applies the concepts of pathophysiology in the interpretation of biological and functional changes in the organism.	The student objectively assesses their level of readiness and requests academic support when needed.
6	The student explains the pathophysiological mechanisms involved in organ and system dysfunctions.	The student uses the concepts of pathophysiology to interpret the mechanisms of the disease in simple clinical contexts.	The student shows autonomy and responsibility in the process of learning and medical analysis.

7. Accumulated specific competencies

Professional competencies	It uses the fundamental notions of pathophysiology to understand the mechanisms of production and evolution of diseases. Interprets functional and biological changes associated with pathological processes. It correlates the pathophysiological data with the clinical and paraclinical manifestations of the diseases. Apply the principles of pathophysiology in the analysis of the etiopathogenic mechanisms of diseases. It uses the medical terminology specific to pathophysiology in professional communication. Interprets the results of biological and paraclinical investigations relevant to pathological processes. Applies medical reasoning and critical thinking in the analysis of pathophysiological mechanisms. It uses current scientific information and principles of evidence-based medicine in the learning and research process. Participates in scientific research and documentation activities in the medical field. Respects the principles of professional ethics and deontology in medical and academic activity.
Transversal competencies	Show responsibility and autonomy in conducting academic and practical activities. Apply critical thinking and logical reasoning in the interpretation of pathological processes. Collaborate effectively within the multidisciplinary team. Demonstrates concern for continuous professional development and updating of medical knowledge. Use of scientific sources and modern educational resources in the learning and research process. Use of digital resources and medical databases for professional documentation. Interpret clinical and paraclinical data in digital format. Use of computer applications and educational platforms in academic and research work.

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Acquire fundamental knowledge of the pathophysiological mechanisms involved in the onset, evolution and manifestation of diseases, as well as develop the ability to integrate clinical and paraclinical data into the interpretation of pathological processes, in accordance with the principles of evidence-based medicine.
8.2. Specific objectives	Knowledge of the fundamental concepts of general pathophysiology. Understanding the etiopathogenic mechanisms involved in the onset and evolution of diseases. Knowledge of the body's adaptation and compensation mechanisms in pathological conditions. Understanding changes in homeostasis and metabolic, hydroelectrolyte and acid-base imbalances.

	Knowledge of the pathophysiological mechanisms of the main diseases of organs and systems. Interpretation of the relationships between aetiology, pathogenesis and clinical manifestations of diseases. Correlation of pathophysiological changes with clinical and paraclinical data. Interpretation of biological and functional investigations used in the evaluation of pathological processes. Explain the body's compensatory and adaptive mechanisms. Interpretation of biological and paraclinical parameters used in the diagnosis of various pathological states. Analysis of simple clinical cases from the perspective of the pathophysiological mechanisms involved. Application of the concepts of pathophysiology in solving basic medical problems. Use of pathophysiology-specific medical terminology. Participation in practical and medical research activities. Observance of ethical and deontological principles in medical and academic activity. Developing critical thinking and medical reasoning. Developing professional responsibility and teamwork capacity. Showing interest in continuing medical education and scientific research. Using current scientific sources to update medical knowledge.
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9. Contents

9.1. Course	Teaching methods	Comments
1. Introduction to pathophysiology. General mechanisms of the disease	Oral presentation, multimedia presentation	2 hours
2. Cell death and pathophysiology of carcinogenesis	Oral presentation, multimedia presentation	2 hours
3. Inflammatory reaction and the body's response to tissue aggression	Oral presentation, multimedia presentation	2 hours
4. Pathophysiology of the immune system	Oral presentation, multimedia presentation	2 hours
5. Mechanisms of thermoregulation disorders	Oral presentation, multimedia presentation	2 hours
6. Pathophysiology of acid-base balance	Oral presentation, multimedia presentation	2 hours
7. Pathophysiology of hydroelectrolyte metabolism	Oral presentation, multimedia presentation	2 hours
8. Pathophysiology of phospho-calcium metabolism	Oral presentation, multimedia presentation	2 hours
9. Pathophysiology of protein metabolism	Oral presentation, multimedia presentation	2 hours
10. Pathophysiology of carbohydrate metabolism	Oral presentation, multimedia presentation	2 hours
11. Pathophysiology of lipid metabolism	Oral presentation, multimedia presentation	2 hours
12. Pathophysiology of shock	Oral presentation, multimedia presentation	2 hours
13. Pathophysiology of endocrine functions	Oral presentation, multimedia presentation	2 hours
14. Pathophysiology of the central nervous system and pain	Oral presentation, multimedia presentation	2 hours

Bibliography:

1. Jipa Radu – *Pathophysiology Course Notes*, Universitatea de Vest „Vasile Goldiș” din Arad, 2025.
2. McCance K.L., Huether S.E. – *Pathophysiology: The Biologic Basis for Disease in Adults and Children*, Elsevier, ediția a 9-a, 2024.
3. Huether S.E., McCance K.L., Brashers V.L. – *Understanding Pathophysiology*, Elsevier, ediția a 8-a, 2025.
4. Porth C.M. – *Essentials of Pathophysiology: Concepts of Altered Health States*, Lippincott Williams & Wilkins, ediția a 10-a, 2023.
5. Copstead L.E., Banasik J.L. – *Pathophysiology*, Elsevier, ediția a 6-a, 2022.
6. Braun C., Anderson C. – *Applied Pathophysiology*, Lippincott Williams & Wilkins, ediția a 3-a, 2016.
7. Silbernagl S. – *Color Atlas of Pathophysiology*, Thieme, 2019.

8. Seifter J.L., Sloane D.E., Walsh E. – Integrated Physiology and Pathophysiology, Elsevier, 2022. 9. Scott W.N. – Pathophysiology Made Incredibly Easy, Lippincott Williams & Wilkins, ediția a 7-a, 2024. 10. Capriotti T.M., Frizzell J.P. – Pathophysiology: Introductory Concepts and Clinical Perspectives, F.A. Davis Company, ediția a 2-a, 2022. 11. Educational software		
9.2. Seminar / Laboratory	Teaching methods	Comments
1. Introduction to experimental and laboratory techniques	Oral presentation, multimedia presentation	2 hours
2. Evaluation of cell death and mechanisms of carcinogenesis	Oral presentation, multimedia presentation	2 hours
3. Exploring inflammatory response and tissue response	Oral presentation, multimedia presentation	2 hours
4. Assessment of immune response and hypersensitivity reactions	Oral presentation, multimedia presentation	2 hours
5. Thermoregulation disorders and febrile reaction	Oral presentation, multimedia presentation	2 hours
6. Interpretation of acid-base imbalances	Oral presentation, multimedia presentation	2 hours
7. Evaluation of hydroelectrolyte disorders	Oral presentation, multimedia presentation	2 hours
8. Interpretation of changes in phospho-calcium metabolism	Oral presentation, multimedia presentation	2 hours
9. Evaluation of protein metabolism disorders	Oral presentation, multimedia presentation	2 hours
10. Exploring carbohydrate metabolism and diabetes mellitus	Oral presentation, multimedia presentation	2 hours
11. Interpretation of lipid metabolism disorders	Oral presentation, multimedia presentation	2 hours
12. Pathophysiology of shock and notions of first aid	Oral presentation, multimedia presentation	2 hours
13. Interpretation of endocrine changes.	Oral presentation, multimedia presentation	2 hours
14. Exploring the pathophysiological mechanisms of the central nervous system and pain	Oral presentation, multimedia presentation	2 hours
Bibliography: 1. Jipa Radu, Butari Denis – Practical work in the subject of pathophysiology, Universitatea de Vest „Vasile Goldiș” din Arad, 2025 2. Îndreptar Practic de Fiziopatologie Clinică I (Ed. A 2-a revizuită) – coord. Claudia Borza, Danina M. Muntean, Ed. Victor Babeș 2025, Isbn 978-606-786-442-7 Vol. I, Isbn 978-606-786-444-1 3. Îndreptar Practic de Fiziopatologie Clinică II (Ed. A 2-a revizuită) – coord. Danina M. Muntean, Claudia Borza, Ed. Victor Babeș 2025, ISBN 978-606-786-443-4 vol. II, ISBN 978-606-786-444-1 4. Current scientific articles and guides in the field of pathophysiology and internal medicine. 5. Educational software		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

The contents of the course are developed in accordance with ARACIS standards and with the current recommendations of the academic and medical community in the field of biomedical sciences. The subject ensures the acquisition of the fundamental knowledge necessary to understand the pathophysiological mechanisms involved in the occurrence and evolution of diseases, constituting the basis for the study of clinical disciplines. The didactic and practical activities contribute to the development of medical reasoning, the ability to integrate clinical and paraclinical data and the critical thinking necessary for modern medical practice. The contents of the subject promote the use of evidence-based medicine, correct medical terminology and ethical and deontological principles in professional and research activity.
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11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	Knowledge and understanding of pathophysiological mechanisms; ability to	Written exam	70%

	analyse and integrate theoretical and practical information		
11.5. Seminar/ laboratory	Active participation in practical activities; interpretation of biological and paraclinical investigations; analysis and presentation of cases; application of the concepts of pathophysiology in solving medical problems	Practical assessment, continuous assessment, case / report presentation	30%
11.6. Minimum performance standard	Knowledge of the fundamental notions of pathophysiology. Correct use of discipline-specific medical terminology. Minimal interpretation of basic biological and paraclinical investigations. Correlation of pathophysiological mechanisms with elementary clinical manifestations. Active participation in practical activities and passing the final exam.		

Date of completion
19.09.2025

**Signature of the course
holder**

Senior lecturer
Jipa Radu PhD

Signature of seminar holder

Senior lecturer Jipa Radu PhD
Univ. assist. Butari Denis PhD candidate

Date of department endorsement
25.09.2025

Signature of the Head of Department
Assoc. prof. Turcus Violeta PhD

SUBJECT DESCRIPTION

PATHOLOGICAL ANATOMY

1. Data on the program

1.1. Higher education institution	Western University “Vasile Goldiș” of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	License
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Pathology anatomy						
2.2. Holder of the course activities	Senior lecturer Pribac George-Ciprian PhD						
2.3. Holder of the seminar activities	Senior lecturer Pribac George-Ciprian PhD						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	Ex	2.7. Subject regime	DF

3. Total estimated time (hours per semester of the teaching activities)

3.1. Number of hours per week	4	3.2. out of which course	2	3.3. Seminar / laboratory	4
3.4. Total hours in the curriculum	56	3.5. out of which course	28	3.6. Seminar / laboratory	28
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					18
Additional documentation in the library, on the digital specialised platforms and on site					10
Preparing seminars/ laboratories, topics, reports, portfolios and essays					8
Mentoring					2
Examinations					4
Other activities: open day, scientific clubs					2
3.7. Total hours of individual study	44				
3.8. Total hours per semester	100				
3.9. Number of credit units	4				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Knowledge of anatomy, histology, cell biology.
4.2. Competencies-related	Basic notions on the technique of producing and processing a smear or histological sections (fixation, staining). Study by optical microscopy

5. Requirements (where applicable)

5.1. for developing the course	Classroom, equipped with interactive whiteboard, laptop, video projector and suitable software (Power Point, Word)
5.2. for developing the seminar/ laboratory	Laboratory equipped with PC units with software for viewing virtual preparations, microscopic and macroscopic preparations, electronic database of microscopic and macroscopic images.

6. Learning results (minimum 4 – maximum 8) ¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student identifies, describes, and explains the fundamental mechanisms of cellular injury and adaptation, including necrosis, apoptosis, intracellular accumulations, and the phases of acute and chronic inflammation and tissue repair.	The student correctly interprets microscopic images to differentiate between reversible and irreversible cellular changes and identifies specific histological patterns of inflammation and hemodynamic disorders (thrombosis, embolism, infarction).	The student integrates knowledge of general pathological processes to explain the transition from health to disease and formulates reasoned conclusions regarding the aetiology and pathogenesis of basic lesions.
2	The student defines and	The student applies diagnostic	The student assesses the

¹ The learning results must be selected from among the three groups.

	classifies benign and malignant tumours, explaining the biology of tumour growth, invasion, metastasis, and the criteria for tumour staging and grading (TNM system).	criteria to distinguish benign from malignant tumours on histopathological slides and utilizes notions of immunohistochemistry and tumour markers for differential diagnosis.	prognostic implications of a histopathological diagnosis in oncology and assumes responsibility for interpreting tumour morphology in the context of clinical management.
3	The student describes the aetiology, pathogenesis, and morphological features (macroscopic and microscopic) of diseases affecting major systems: cardiovascular, respiratory, digestive, renal, and genital systems.	The student demonstrates the ability to recognize and diagnose specific organ lesions (e.g., myocardial infarction, cirrhosis, pneumonia, glomerulonephritis) using optical microscopy and correlates them with clinical manifestations.	The student correlates structural changes in organs with their functional consequences, interpreting the impact of systemic diseases on specific tissues within a multidisciplinary medical context.
4	The student explains the principles of histopathological techniques, including tissue harvesting, fixation, processing, and staining, and understands the role of the pathologist in the diagnostic team.	The student performs microscopic examinations to identify lesions, drafts histopathological descriptions, and correctly interprets laboratory reports for diagnostic purposes.	The student assumes responsibility for the accuracy of identifying pathological lesions and integrates morphological findings with clinical data to support a final diagnosis.

7. Accumulated specific competencies

Professional competencies	- Acquire knowledge of general and special pathological anatomy, structural changes that are the basis of various diseases. - Knowledge of diagnostic methods used in pathological anatomy, specific indications for application and their value. - Production of smears and histological sections. - Knowledge of concepts enabling the understanding and interpretation of pathological lesions. - Methods for harvesting a pathological product containing tissue material for histological processing. - Fixation of tissue material for histological processing. - Production of a histological section from pathological products. - Drafting of the accompanying ticket for pathological products taken for histopathological diagnosis. - Learning methods of examining histopathology slides in order to establish the diagnosis.
Transversal competencies	- Knowledge of the route and rules applied to biological products collected in a hospital environment in order to obtain a cyto- or histopathological diagnosis - Develop skills in using the microscope - Openness to self-improvement

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Pathological anatomy is a fundamental educational discipline for the training of future doctors. This discipline meets the needs and requirements of higher medical education, presenting the morphological, macroscopic and microscopic aspects of elementary lesions as well as pathological processes on devices and systems. In order to facilitate the understanding and fixation of concepts, the discipline is provided with lectures and laboratory work which must, however, be supplemented by the assimilation of additional knowledge and studies. For the same purpose, the subject also draws on knowledge of anatomy and histology from previous years. The discipline consists of two parts: General pathological anatomy - deals with the fundamental aspects of elementary lesions, from a morphological point of view (macro and microscopic), as well as their production mechanisms. Special pathological anatomy - synthesizes the basic concepts of elementary lesions which it transposes onto devices and systems, helping to understand the
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	clinical manifestations of various conditions.
8.2. Specific objectives	• define the object of study of the discipline; • demonstrate minimal competence in the use of the optical microscope; • establish the methods for highlighting macroscopic and histopathological diagnostic criteria; • describe basic lesions and their modes of formation; • identify histopathological elements and usual colours in microscope work; • to acquire current methods of histopathological diagnosis according to current special staining techniques (IHC); • recognize the importance of morpho-pathological disciplines in understanding the clinical context of the manifestation of pathology. • develop the theoretical notions inherent in morphopathology with a view to their application in medical practice; • argue the use of certain techniques; • to appreciate the use of results obtained in other fields of science and medicine; • determine the contribution of morphological methods in public health programs; • to highlight the interdisciplinary nature and the role of morphopathology in the development of other medical fields;

9. Contents

9.1. Course	Teaching Methods	Comments
GENERAL PATHOLOGY	Power Point	28
Morphopathology in the context of medical disciplines.	presentations with	1
Hyperaemia. Haemorrhage. Shock. Oedema.	representative images of	2
Thrombosis. Embolism. Ischemia.	the multiple macroscopic	2
Heart attack.	and microscopic aspects	1
Reversible cellular changes. Adaptive cellular changes: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia.	of pathological processes (lesions) with the aim of explaining the structural alterations of the first semester programs. The material is continuously revised to incorporate the latest information in the field of pathology.	2
Alterations due to abnormal storage of substances: alterations due to lipid metabolism disorders, glycogen storage diseases, hyaline alteration, mucinous and mucoid alteration, fibrinoid alteration, amyloid alteration, alterations due to urate crystal deposition, alterations due to variation in calcium deposits. Pigments: melanin, haemoglobin pigments, lipofuscin.		3
Irreversible cellular changes: necrosis, apoptosis.		1
Acute inflammation: the main reactions during the inflammatory process, types of acute inflammation.	These presentations include interactive communication, questions and discussions.	2
Chronic inflammation - non-specific and specific: tuberculous inflammation; syphilitic inflammation; leprosy; rhinoscleroma; parasitic inflammations. The peculiarities of viral inflammations.		2
Regeneration, repair and fibrosis processes. Concepts of immunopathology: immunologically mediated tissue alterations; immune reactions to transplanted tissues and organs; immunodeficiency diseases; acquired immunodeficiency syndrome.		4
General bio-morphological characteristics of benign tumours. General bio-morphological characteristics of malignant tumours. Tumour markers. Tumour invasion and metastasis. Clinical-biological effects of tumours.		2
Morphological diagnosis of tumours. Criteria for the application of prognosis, classification and staging of cancer. Precancerous lesions. Intraepithelial carcinoma.		2
The main types of benign and malignant tumours: epithelial tissue tumours, connective tissue tumours, adipose tissue tumours, cartilage tissue tumours, bone tissue tumours, muscle tissue tumours, blood vessel tumours, lymphatic vessel tumours.		2
Tumours of pigmented, lymphoreticular, and hematopoietic tissue of the bone marrow.		2
Bibliography 1. Pribac GC, Lecture Notes – General Pathology, 2025. 2. Kumar, Vinay; Abbas, Abul K.; Aster, Jon C., Robbins & Cotran Pathologic Basis of Disease, Elsevier, 2020		

(Ediția a 10-a).		
3. Rosai, Juan Rosai and Ackerman's Surgical Pathology, Elsevier, 2011 (Ediția a 10-a).		
4. Mills, Stacey E. (Editor), Sternberg's Diagnostic Surgical Pathology, Lippincott Williams & Wilkins, 2015 (Ediția a 6-a).		
5. Pawlina, Wojciech, Histology: A Text and Atlas: With Correlated Cell and Molecular Biology, Lippincott Williams & Wilkins, 2023 (Ediția a 9-a).		
6. Young, Barbara; O'Dowd, Geraldine; Woodford, Phillip, Wheater's Functional Histology: A Text and Colour Atlas, Elsevier, 2013 (Ediția a 6-a).		
7. Fletcher, Christopher D. M., Diagnostic Histopathology of Tumours, Elsevier, 2020 (Ediția a 5-a).		
8. Goldblum, John R.; Folpe, Andrew L.; Weiss, Sharon W., Enzinger and Weiss's Soft Tissue Tumours, Elsevier, 2019 (Ediția a 7-a).		
9. Kurman, Robert J.; Ellenson, Lora Hedrick; Ronnett, Brigitte M., Blaustein's Pathology of the Female Genital Tract, Springer, 2011 (Ediția a 6-a).		
10. Burt, Alastair D.; Ferrell, Linda D.; Hübscher, Stefan G., MacSween's Pathology of the Liver, Elsevier, 2023 (Ediția a 8-a).		
9.2. Seminar / laboratory	Teaching Methods	Comments
GENERAL MORPHOPATHOLOGY		28
Presentation of the laboratory. Progress of activities. Signs of biological death. Autopsy technique. Macroscopy demonstrations at the morgue and museum.		2
Individual microscopic study of the following lesions: active pulmonary hyperaemia, pulmonary stasis, hepatic stasis.	Participatory conference, debate exhibition, problematization, demonstration, exercises. Review of slides.	2
Red blood clot, renal infarction, acute pulmonary oedema.		2
Coagulation necrosis, caseation necrosis, tumour necrosis.		2
Hydropic degeneration. Fatty hepatic dystrophy, fibrinoid dystrophy, hyaline amyloidosis, renal amyloidosis.		2
Tofu drop, melanin pigment, pathological calcifications, hemosiderin in tissues.		2
Vasculo-exudative reactions due to acute inflammation, fibrinous pericarditis, abscess, phlegmon (phlegmonous appendicitis);		2
Granulation tissue, foreign body granuloma, exudative tuberculosis (macrophagic alveolitis), proliferative tuberculosis (tuberculous follicle), actinomycotic granuloma, parasitic inflammation (trichinellosis).		3
Exudative tuberculosis (macrophagic alveolitis), proliferative tuberculosis (tuberculous follicle),		2
Papilloma, adenoma, breast fibroadenoma, chondroma, uterine leiomyoma, haemangioma, pigmented nevus.		2
Basal cell carcinoma, cellular cancer		2
Keratinized and non-keratinized squamous cell carcinoma, adenocarcinoma, sarcomas.		1
Osteoma. Osteosarcoma, osteoclastoma. Malignant melanoma.		1
Hodgkin's lymphoma, diffuse lymphocytic lymphoma, immunoblastic lymphoma.		1
Review exercises for microscopy and macroscopy image recognition		2
Bibliography		
1. Pribac GC, Lecture Notes - Pathology- General Part, 2025.		
2. Kumar, Vinay; Abbas, Abul K.; Aster, Jon C., Robbins & Cotran Pathologic Basis of Disease, Elsevier, 2020 (Ediția a 10-a).		
3. Rosai, Juan Rosai and Ackerman's Surgical Pathology, Elsevier, 2011 (Ediția a 10-a).		
4. Mills, Stacey E. (Editor), Sternberg's Diagnostic Surgical Pathology, Lippincott Williams & Wilkins, 2015 (Ediția a 6-a).		
5. Pawlina, Wojciech, Histology: A Text and Atlas: With Correlated Cell and Molecular Biology, Lippincott Williams & Wilkins, 2023 (Ediția a 9-a).		
6. Young, Barbara; O'Dowd, Geraldine; Woodford, Phillip, Wheater's Functional Histology: A Text and Colour Atlas, Elsevier, 2013 (Ediția a 6-a).		
7. Fletcher, Christopher D. M., Diagnostic Histopathology of Tumours, Elsevier, 2020 (Ediția a 5-a).		
8. Goldblum, John R.; Folpe, Andrew L.; Weiss, Sharon W., Enzinger and Weiss's Soft Tissue Tumours, Elsevier, 2019 (Ediția a 7-a).		
9. Kurman, Robert J.; Ellenson, Lora Hedrick; Ronnett, Brigitte M., Blaustein's Pathology of the Female Genital Tract, Springer, 2011 (Ediția a 6-a).		
10. Burt, Alastair D.; Ferrell, Linda D.; Hübscher, Stefan G., MacSween's Pathology of the Liver, Elsevier, 2023 (Ediția a 8-a).		

10. Consistency of subject contents with the expectations of the representatives of the epistemic community, of the professional associations, and of the emblematic employers in the field of the program

- The content of the subject is consistent with what is done in other university centres in the country and abroad. To better adapt the content of the discipline to the professional requirements, meetings and conferences are organized with university professors recognized at European level.

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	Final exam with descriptive topics	Written exam	50%
11.5. Seminar/ laboratory	A test with the course material	Written subjects	20%
	Recognition of 3 slides with different lesions and their description or macroscopic images	Practical exam	30%
11.6. Minimum performance standard	Minimum requirements for grade 5 Pass the verification test during the semester with a grade of 5. Pass the practical exam with a grade of 5. Pass the final exam with a grade of 5.		

Date of completion
15.09.2025

Signature of the course holder
Senior lecturer
Pribac Ciprian George PhD

Signature of seminar holder
Senior lecturer
Pribac Ciprian George PhD

Date of department endorsement
25.09.2025

Signature of the Head of Department
Assoc. prof. Turcuş Violeta PhD

SUBJECT DESCRIPTION

PHARMACOLOGY

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Pharmacology						
2.2. Holder of the course activities	Senior lecturer Oancea Alexandru PhD						
2.3. Holder of the seminar activities	Assoc. prof. Ciurlea Sorina PhD						
2.4. Year of studies	III	2.5. Semester	1	2.6. Type of assessment	Ex	2.7. Subject regime	DF

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	1	3.3. Seminar / laboratory	1
3.4. Total hours in the curriculum	28	3.5. out of which course	14	3.6. Seminar / laboratory	14
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					6
Additional documentation in the library, on the digital specialised platforms and on site					6
Preparing seminars/ laboratories, topics, reports, portfolios and essays					4
Mentoring					2
Examinations					2
Other activities: scientific clubs, open day					2
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Anatomy, Physiology, Biochemistry, Cell and Molecular Biology
4.2. Competencies-related	Correct use of fundamental medical terminology

5. Requirements (where applicable)

5.1. for developing the course	Classroom equipped with multimedia means, smart board
5.2. for developing the seminar/ laboratory	Seminar room, specialized teaching materials

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student describes, identifies and summarizes the pathophysiological mechanisms of diseases, the anatomopathological bases of the changes induced by pathology, their causes (pathogens: bacteria, viruses, parasites, fungi), immunological responses, as well as pharmacological principles of treatment.	The student demonstrates the ability to correctly interpret and apply fundamental notions regarding the general mechanisms of disease production and pharmacological principles of treatment.	The student evaluates, illustrates and integrates fundamental notions and methods of investigating biological functions and formulates and assumes reasoned conclusions regarding the general mechanisms of disease production and pharmacological principles of treatment.
2	The student identifies, defines, describes and differentiates the fundamental notions regarding the characteristics of the healthy and sick human body, structural and functional, with emphasis on	The student analyses, evaluates and applies the fundamental knowledge regarding the morphology and functionality of the dento-maxillary apparatus and specific methods of their	The student integrates and adapts the fundamental knowledge regarding the morphology and functionality of the dento-maxillary apparatus and specific methods of investigation.

¹ The learning results must be selected from among the three groups.

	the morphology and functionality of the dento-maxillary apparatus as well as principles of investigation of biological functions.	investigation.	
3	The student identifies, explains and explains the therapeutic and toxic effects of environmental factors and pharmaceutical products, with a view to their rational use.	The student evaluates the therapeutic effects of the active substances on the body. studies in specific experimental models some pharmacokinetic, pharmacodynamic and pharmacotoxicological processes. conduct toxicological and environmental analyses. Assesses nutritional intake for health.	The student provides information to the patient on the therapeutic effects, pharmaceutical interactions and potential toxic effects as well as the mode of nutrition. collects and transmits data on the adverse effects of medicines.
4	The student describes the general pharmacology; the special pharmacology and the groups of drugs used in the therapy (including antibiotic therapy and antimicrobial resistance).).	The student applies pharmaceutical calculations, referring to the medication that can be used on different animal species in accordance with the diagnosis, the affected system and the state of disease, as well as with the legislation in force.	The student develops, adapts, analyses and evaluates medicinal treatments for veterinary use in good safety, in the necessary doses, avoiding side effects and to ensure food safety and environmental protection.

7. Accumulated specific competencies

Professional competencies	- Evaluation of the benefits and risks of using medicines, alone or in different treatment regimens. - Knowledge of the basics of drug addiction and drug addiction. - Knowledge of the impact of different classes of medicinal substances on the medical act. - Knowledge of possible drug interactions - Knowledge of the main types of side effects in the human body. - Knowledge of the medicines necessary in the treatment of medical emergencies. - Knowledge of the necessary bases for the most appropriate use of medicines in the treatment and prevention of diseases.
Transversal competencies	- Identification of the objectives to be achieved, the available resources, the conditions for their completion, the work stages, the working times, the related deadlines and the related risks - Ability to integrate into multidisciplinary teams with the identification of roles and responsibilities in a multidisciplinary team and the application of techniques of relationship and efficient work within the team and in relation to the patient. - The ability to make a presentation on a scientific topic and the efficient use of information sources and communication resources and assisted professional training (Internet platforms, specialized software applications, databases, online courses, etc.) both in Romanian and in an international language.

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Acquiring fundamental knowledge on the action of medicines on the human body and their rational use.
8.2. Specific objectives	- understanding pharmacokinetics and pharmacodynamics - Knowledge of the main groups of medicines - identification of side effects and drug interactions - knowledge of pharmaceutical forms, routes of administration of medicines and rules for prescribing medicines. - acquiring the habit of correctly prescribing a series of drugs used in general pathology. - to discuss particular aspects related to the use of medicines in patients with different diseases. - rational use of electronic scientific databases in the field of medicines.

9. Contents

9.1. Course	Teaching methods	Comments
1. Introduction to pharmacology. General notions. Classification of medicines	Interactive lecture - Video projection	1
2. Pharmacokinetics: absorption and distribution	Interactive lecture - Video	1

	projection	
3. Pharmacokinetics: metabolism and excretion	Interactive lecture - Video projection	1
4. Pharmacodynamics. Mechanisms of action of medicinal products	Interactive lecture - Video projection	1
5. Dose-effect relationship. Variability of pharmacological response	Interactive lecture - Video projection	1
6. Drug side effects. Toxicity	Interactive lecture - Video projection	1
7. Drug Interactions	Interactive lecture - Video projection	1
8. Pharmacology of the autonomic nervous system: cholinergic system	Interactive lecture - Video projection	1
9. Pharmacology of the autonomic nervous system: adrenergic system	Interactive lecture - Video projection	1
10. CNS pharmacology: sedative, hypnotic, anxiolytic	Interactive lecture - Video projection	1
11. Pharmacology of pain: opioid and non-opioid analgesics	Interactive lecture - Video projection	1
12. Pharmacology of inflammation: NSAIDs and corticosteroids	Interactive lecture - Video projection	1
13. Pharmacology of the cardiovascular system	Interactive lecture - Video projection	1
14. Introduction to anti-infective chemotherapy – general principles	Interactive lecture - Video projection	1

Bibliography:

- Alexandru Oancea - Pharmacology course material, 2025
- Katzung B.G. – Basic & Clinical Pharmacology, McGraw-Hill, 2024
- Goodman & Gilman – The Pharmacological Basis of Therapeutics, McGraw-Hill, 2023
- James M. Ritter, Emma Robinson, James Fullerton, Rod J. Flower, Graeme Henderson, Yoon Kong Loke, David MacEwan - Rang & Dale Pharmacology, Elsevier, 2024
- DiPiro J.T. – Pharmacotherapy: A Pathophysiologic Approach, McGraw-Hill, 2023
- Karen Whalen - Lippincott Illustrated Reviews: Pharmacology, Wolters Kluwer Health, 2022
- Craig W. Stevens - Brenner and Stevens' Pharmacology, Elsevier, 2023
- Derek G. Waller, Andrew W. Hitchings - Medical Pharmacology and Therapeutics, Elsevier, 2022
- Bertram G. Katzung, Marieke Kruidering-Hall, Rupa Lalchandani Tuan, Todd W. Vanderah, Anthony J. Trevor - Katzung & Trevor's Pharmacology Exam and Board Review, McGraw-Hill, 2024
- David E. Golan, Ehrin J. Armstrong, April W. Armstrong - Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy, Wolters Kluwer, 2017
- Terry L. Schwinghammer, Julia M. Koehler, Jill S. Borchert, Douglas Slain, Sharon K. Park - Schwinghammer's Pharmacotherapy Casebook: A Patient-Focused Approach, McGraw-Hill, 2023
- Educational software

9.2. Seminar / Laboratory	Teaching methods	Comments
1. Introduction to the study of the drug. Pharmaceutical forms	Demonstration, Video Projection	1
2. Applications of pharmacokinetics: absorption	Demonstration, Video Projection	1
3. Applications of pharmacokinetics: metabolism and excretion	Demonstration, Video Projection	1
4. Applications of Pharmacodynamics	Demonstration, Video Projection	1
5. Analysis of adverse reactions	Demonstration, Video Projection	1
6. Drug Interactions	Demonstration, Video Projection	1
7. Cholinomimetic and anticholinergic drugs	Demonstration, Video Projection	1
8. Adrenergic and antiadrenergic drugs	Demonstration, Video Projection	1
9. Pharmacological therapy of anxiety and sleep	Demonstration, Video Projection	1
10. Pharmacological therapy of pain	Demonstration, Video Projection	1
11. Anti-inflammatory drugs	Demonstration, Video Projection	1
12. Cardiovascular drugs	Demonstration, Video Projection	1
13. Rational use of antibiotics	Demonstration, Video Projection	1
14. Integrative recapitulation	Demonstration, Video Projection	1

Recommended minimum bibliography:

- Alexandru Oancea - Pharmacology course material, 2025
- Katzung B.G. – Basic & Clinical Pharmacology, McGraw-Hill, 2024
- Goodman & Gilman – The Pharmacological Basis of Therapeutics, McGraw-Hill, 2023
- James M. Ritter, Emma Robinson, James Fullerton, Rod J. Flower, Graeme Henderson, Yoon Kong Loke, David MacEwan - Rang & Dale Pharmacology, Elsevier, 2024

- DiPiro J.T. – Pharmacotherapy: A Pathophysiologic Approach, McGraw-Hill, 2023 - Karen Whalen - Lippincott Illustrated Reviews: Pharmacology, Wolters Kluwer Health, 2022 - Craig W. Stevens - Brenner and Stevens' Pharmacology, Elsevier, 2023 - Derek G. Waller, Andrew W. Hitchings - Medical Pharmacology and Therapeutics, Elsevier, 2022 - Bertram G. Katzung, Marieke Kruidering-Hall, Rupa Lalchandani Tuan, Todd W. Vanderah, Anthony J. Trevor - Katzung & Trevor's Pharmacology Exam and Board Review, McGraw-Hill, 2024 - David E. Golan, Ehrin J. Armstrong, April W. Armstrong - Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy, Wolters Kluwer, 2017 - Terry L. Schwinghammer, Julia M. Koehler, Jill S. Borchert, Douglas Slain, Sharon K. Park - Schwinghammer's Pharmacotherapy Casebook: A Patient-Focused Approach, McGraw-Hill, 2023 - Educational software

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

• The contents of the subject are aligned with the current requirements of medical education and provide the necessary basis for the study of clinical subjects and the correct use of drug therapy.
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11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	- Knowledge of the fundamentals of general and special pharmacology. - Explanation of mechanisms of action, pharmacokinetics and pharmacodynamics of medicines. - Identification of the main classes of medicines, indications, side effects and drug interactions	Written exam	70%
11.5. Seminar/ laboratory	- Application of the notions of pharmacology in common clinical situations. - Recognition of dosage forms, routes of administration and prescribing rules. - Analysis of adverse reactions, drug interactions and rational use of medicines.	Practical exam – written test	30%
11.6. Minimum performance standard	- Knowledge of the basic principles regarding the use of medicines in medical practice. - Identify the main classes of medicines, important side effects and relevant drug interactions. - Use and prescription of common medicines in safe conditions for the patient. - The final passing grade is grade 5. - The final grade is established based on the evaluation criteria considered in a weighted manner with the relationship: 70% for the written test and 30% for the practical test. - The practical exam is an eliminatory test. - For the practical exam, the minimum passing grade is 5. - For the written test, the minimum passing score is 5.		

Date of completion

15.09.2025

Signature of the course holder

Senior lecturer Oancea Alexandru
PhD

Signature of seminar holder

Assoc. prof. Ciurlea Sorina PhD

Date of department endorsement

25.09.2025

Signature of the Head of

Department

Assoc. prof. Turcus Violeta PhD

SUBJECT DESCRIPTION

IMMUNOLOGY

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Immunology						
2.2. Holder of the course activities	Senior lecturer Miha Alin PhD						
2.3. Holder of the seminar activities	Univ. assist. Rus Larisa PhD candidate						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	Ex	2.7. Subject regime	DF

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	1	3.3. Seminar / laboratory	1
3.4. Total hours in the curriculum	28	3.5. out of which course	14	3.6. Seminar / laboratory	14
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					8
Additional documentation in the library, on the digital specialised platforms and on site					4
Preparing seminars/ laboratories, topics, reports, portfolios and essays					4
Mentoring					2
Examinations					2
Other activities: scientific clubs, open day					2
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Knowledge of the basics of anatomy, cell and molecular biology and biochemistry
4.2. Competencies-related	Knowledge of the morphological organization of the human body, operating with fundamental notions of physics and biochemistry The ability to interpret elementary physicochemical phenomena at the cellular and systemic level. Ability to use basic laboratory instruments and equipment.

5. Requirements (where applicable)

5.1. for developing the course	Classroom/amphitheatre equipped with multimedia equipment (laptop, video projector, interactive whiteboard) and internet access, to be able to use online resources and educational platforms Students must comply with the schedule, mandatory attendance 80%
5.2. for developing the seminar/ laboratory	Specific laboratory equipment Medical supplies (cotton wool, alcohol, sterile lants, other specific laboratory materials for dosing certain blood components) Protective materials Mandatory equipment, where applicable and protective gloves Strict compliance with labour protection rules Obligation to maintain the integrity of teaching equipment and materials Mandatory attendance 100%.

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student identifies, describes, exemplifies and classifies the mechanisms of disease production, risk factors, pathogens (bacteria, viruses, parasites) and types of immune response, as well as the development of pharmacological and genetic approaches	The student correctly interprets and applies the fundamental notions regarding the mechanisms of disease production and the methods of investigation of biological functions	The student integrates fundamental notions and methods of investigation of biological functions, formulates and assumes conclusions, arguments regarding the general mechanisms of disease production and general principles of treatment
2	The student will be able to explain the structure and function of the immune system (cells, organs, molecules), recognize the role and types of immunoglobulins (IgG, IgM, IgA, IgE, IgD).	The student will be able to correctly perform immunological laboratory techniques: ELISA, Western blot, serological tests, flow cytometry	The student will demonstrate respect for the ethics and confidentiality of patient data.
3	The student will be able to describe the mechanisms of the innate and acquired immune response, as well as the interrelationships between its components	The student will be able to integrate immunological concepts in explaining the pathophysiological mechanisms of diseases and interpret the results of immunological analyses in a clinical context.	The student will demonstrate responsibility and responsibility in conducting laboratory activities.
4	The student will be able to explain the immunological bases of immunological tolerance and memory and understand the principles of infectious, tumour immunology and modern immunotherapies.	The student will be able to correlate the mechanisms of the immune response with the clinical picture and the evolution of infectious, allergic and autoimmune diseases.	The student will demonstrate openness to lifelong learning and professional development.
4	The student will be able to explain the immunopathological mechanisms involved in hypersensitivity, autoimmunity, immunodeficiencies and transplant rejection.	The student will be able to recommend basic prophylactic or therapeutic measures (vaccination, immunotherapy).	The student will demonstrate interdisciplinary teamwork.
5	The student will be able to present the theoretical foundations of immunological diagnostic methods used in medical practice and identify relevant immunological markers for different pathologies.	The student will be able to correctly document and report the results of experiments and analyses.	The student will demonstrate the ability to critically evaluate the scientific literature and the results obtained.

7. Accumulated specific competencies

Professional competencies	Acquiring knowledge regarding immunological deficiencies and immunotherapy principles; to describe the activation of the complement system and its role in mediating acute inflammation, to know the mechanisms of phagocytosis and non-specific extracellular cytotoxicity, the structure and functions of immunoglobulins, the role of T and B lymphocytes in the development of the immune response, the role of some essential molecules in the activation of lymphocytes – antigen receptors, MHC, cytokine receptors, the principles of immunological techniques for detecting the specific antigen-antibody reaction. Explain the mechanisms of innate and adaptive immunity. Interpretation of immunological test results. Identification of relevant immunological markers. Correct application of immunological laboratory methods.
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¹ The learning results must be selected from among the three groups.

	Correlation of paraclinical data with the clinical picture. Recommendation of prophylactic measures and patient counselling. Continuous professional development and improvement in the field.
Transversal competencies	The ability to integrate knowledge from several medical disciplines (physiology, biochemistry, microbiology) in order to correctly interpret immunological results. The ability to analyse and synthesize complex scientific information. Critical thinking in the evaluation of paraclinical data and literature. Effective use of scientific methodology and laboratory instruments. Application of standard procedures in performing immunological tests (ELISA, Western blot, flow cytometry, allergy tests). The ability to work correctly with clinical and paraclinical data to formulate conclusions. Clear communication of immunological results to colleagues and patients. Interdisciplinary teamwork (doctors, nurses, laboratories). Compliance with the rules of ethics and confidentiality in medicine. Developing responsibility and autonomy in learning. The ability to manage complex or unpredictable situations in the laboratory or clinic. Openness to continuous improvement and self-evaluation. Digital skills - Assessment of data, information and digital content; Collaboration through digital technologies Entrepreneurial skills - Identifying the needs and challenges that need to be met; Visualize future scenarios to help guide efforts and actions

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Understanding the basic mechanisms of the immune system. Description of the immune response and the role of immunoglobulins. Recognition of types of pathological immunological reactions. Application of paraclinical immunological methods in diagnosis.
8.2. Specific objectives	Correct interpretation of immunological test results (ELISA, Western blot, Coombs, flow cytometry). Recognition of immunological markers relevant to various pathologies. Correct application of immunodiagnostic methods. Correlation of paraclinical data with the patient's clinical picture. Recommendation of prophylactic measures and counselling of patients. Assess the clinical significance of immunological markers. Developing critical reasoning by correlating theoretical data with experimental results obtained in the laboratory. Observing medical ethics in performing manoeuvres on human subjects and protecting the confidentiality of the data obtained. Promoting team spirit in solving laboratory tasks and effectively communicating the results obtained to the group Ability to collect biological samples in compliance with biosecurity norms. Correct interpretation of analysis bulletins, results and graphic routes obtained from functional investigations. Developing critical reasoning by correlating theoretical data with experimental results obtained in the laboratory. Observing medical ethics in performing manoeuvres on human subjects and protecting the confidentiality of the data obtained. Promoting team spirit in solving laboratory tasks and effectively communicating the results obtained to the group.

9. Contents

9.1. Course	Teaching methods	Comments
1.Organization and functions of the immune system. Immunocompetent organs and cells	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint	1

	presentations	
2. Innate immunity	Interactive lecture with multimedia support.	1
3. Adaptive immunity	Interactive lecture with multimedia support.	1
4. Antigen. Antibody. Antigen-antibody reaction	Interactive lecture with multimedia support.	1
5. Immunoglobulins. Types and functions of immunoglobulins	Interactive lecture with multimedia support.	1
6. Complement system	Interactive lecture with multimedia support.	1
7. The major histocompatibility complex	Interactive lecture with multimedia support.	1
8. Activation and regulation of the immune response	Interactive lecture with multimedia support.	1
9. Cytokines and immunological mediators	Interactive lecture with multimedia support.	1
10. Immunological tolerance. Autoimmunity	Interactive lecture with multimedia support.	1
11. Hypersensitivity reactions	Interactive lecture with multimedia support.	1
12. Immunodeficiencies	Interactive lecture with multimedia support.	1
13. Immunology of infections. Tumour immunology	Interactive lecture with multimedia support.	1
14. Transplant immunology. Vaccines and immunization	Interactive lecture with multimedia support.	1

Bibliography:

Mihu Alin - *Course Notes – Immunology*, 2025

Parham P. *The Immune System*. 5th Ed., Garland Science, 2021.

Kuby J. *Immunology*. 9th Ed., W.H. Freeman, 2021.

Kenneth M. Murphy, Casey Weaver & Leslie J. Berg – Janeway's Immunobiology, 10th ed. (2022) – ISBN 9780393884913 – <https://www.amazon.com/Janeways-Immunobiology-Kenneth-M-Murphy/dp/0393884910>

Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai & Sarah Henrickson – Cellular and Molecular Immunology, 11th ed. (2025) – ISBN 9780443283581 – <https://shop.elsevier.com/books/cellular-and-molecular-immunology/abbas/978-0-443-28358-1>

Educational software

9.2. Seminar / Laboratory	Teaching methods	Comments
1. Introduction to Paraclinical Immunology. General methods and principles	Interactive oral presentation The demonstration, the experiment,	1
2. Antigen–antibody reactions used in immunological diagnosis	Participatory lecture with methods of effective action, combined lecture with audio-visual means, educational software, demonstration, experiment	1
3. Agglutination and hemagglutination techniques	Interactive oral presentation Direct experiment, practical execution	1
4. Precipitation and immunodiffusion reactions	Interactive oral presentation	1
5. Immunoelectrophoresis and immunofixation	Interactive oral presentation	1
6. Enzyme-linked immunosorbent tests (ELISA)	Interactive oral presentation	1
7. Immunofluorescence techniques	Interactive oral presentation	1
8. Immunoblotting methods (Western blot)	Interactive oral presentation	1
9. Serum immunoglobulin dosage	Interactive oral presentation	1
10. Investigation of the complement system	Interactive oral presentation	1
11. Investigation of the complement system	Interactive oral presentation	1
12. Investigation of the complement system	Interactive oral presentation	1

13. Investigation of the complement system	Interactive oral presentation	1
14. Immunological markers in transplantation and oncology	Interactive oral presentation	1
Bibliography: Rus Larisa – <i>Support for Immunology Practical Works</i> , 2025 Parham P. <i>The Immune System</i> . 5th Ed., Garland Science, 2021. Kuby J. <i>Immunology</i> . 9th Ed., W.H. Freeman, 2021. Kenneth M. Murphy, Casey Weaver & Leslie J. Berg – <i>Janeway's Immunobiology</i> , 10th ed. (2022) – ISBN 9780393884913 – https://www.amazon.com/Janeways-Immunobiology-Kenneth-M-Murphy/dp/0393884910 Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai & Sarah Henrickson – <i>Cellular and Molecular Immunology</i> , 11th ed. (2025) – ISBN 9780443283581 – https://shop.elsevier.com/books/cellular-and-molecular-immunology/abbas/978-0-443-28358-1 Henry J.B. – <i>Clinical Diagnosis and Management by Laboratory Methods</i> , Elsevier, Ediția a24-a, 2021. Educational software		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

The content of the Immunology subject is structured in accordance with the requirements of the National Curriculum for Medical Higher Education and is corroborated with the analytical programs of other university centres in the country and abroad. In order to ensure a training connected to the professional reality, the contents are aligned with: Expectations of the epistemic community: the theme is periodically updated in accordance with recent discoveries in the field of functional sciences, reflected in international reference treaties Professional associations: the curriculum covers the skills needed to take the national residency exam. Employers (Health Units and Research Institutes): practical work (interpretation of analysis reports, etc.) responds to the direct requirements of hospitals and clinics, forming functional diagnostic skills for future doctors.
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11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	Correct and complete knowledge of theoretical knowledge. Demonstrating the ability to establish connections between the different aspects that characterize the immunological diseases studied, based on the accumulations consecutive to the study of the discipline and assembled in the logic of immunological diseases.	Final written exam (essay topics) Evaluation during the semester: - 2 tests	50% 30%
11.5. Seminar/ laboratory	Correct learning of the methods of performing laboratory analyses Correct interpretation of experimental data. Ability to work in a team and comply with biosecurity rules.	Practical exam: Demonstration on a healthy subject, interpretation of analysis reports/clinical cases Periodic assessments: Quiz tests or lab reports.	20%
11.6. Minimum performance standard	Theoretical knowledge: Knows and can define the fundamental terms of immunology Can describe the main functions of the systems studied Practical skills: Can use basic laboratory instrumentation correctly Demonstrates the ability to practically perform the experiments learned in the laboratory He/ she is able to interpret blood test reports. Scoring criteria: Obtaining the passing grade (minimum 5) at the 2 evaluations during the semester Obtaining the passing grade (minimum 5) at the final practical exam. Obtaining the passing grade (minimum 5) at the final theoretical exam.		

Date of completion
15.09.2025

Signature of the course holder
Senior lecturer Miha Alin PhD

Signature of seminar holder
Univ. assist. Rus Larisa PhD candidate

**Date of department
endorsement**
25.09.2025

Signature of the Head of Department
Assoc. prof. Turcus Violeta PhD

SUBJECT DESCRIPTION MEDICAL SEMIOLOGY I

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Medicine
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Medical Semiology						
2.2. Holder of the course activities	Lecturer Uzum Amelia MD PhD						
2.3. Holder of the seminar activities	Lecturer Uzum Amelia MD PhD Univ. assist. Burciu Călin MD PhD Univ. assist. Grada Sebastian MD PhD Univ. assist. Jigău Oana MD PhD						
2.4. Year of studies	III	2.5. Semester	1	2.6. Type of assessment	Exam	2.7. Subject regime	DD

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	6	3.2. out of which course	2	3.3. Seminar / laboratory	4
3.4. Total hours in the curriculum	84	3.5. out of which course	28	3.6. Seminar / laboratory	56
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					38
Additional documentation in the library, on the digital specialized platforms and on site					15
Preparing seminars/ laboratories, topics, reports, portfolios and essays					5
Mentoring					2
Examinations					4
Other activities: participation in workshops, open days, scientific clubs, etc.					2
3.7. Total hours of individual study	66				
3.8. Total hours per semester	150				
3.9. Number of credit units	6				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Knowledge of anatomy and physiology
4.2. Competencies-related	-

5. Requirements (where applicable)

4.1. Curriculum-related	classroom with video projector, interactive whiteboard, portable microphone, sound system, laptop
4.2. Competencies-related	Gastroenterology Clinical Department

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student identifies, describes, explains and classifies the mechanisms of respiratory and cardiovascular diseases, risk factors, pathogens	The student correctly interprets and applies the fundamental notions regarding the mechanisms of disease production and the methods of investigation	The student integrates fundamental notions and methods of investigation, formulates and assumes reasoned conclusions regarding the general mechanisms of disease production and the general principles of treatment.
2	The student recognizes, evaluates and classifies the signs and symptoms associated with different pathological states, using semiological principles, for the correct understanding of the diagnostic process	The student demonstrates, applies and correctly interprets clinical examination methods and techniques for formulating a diagnosis.	The student develops and coordinates clinical examination activities, proposes and assumes the clinical diagnosis based on the principles of semiology

¹ The learning results must be selected from among the three groups.

3	The student describes, identifies and explains the fundamental principles of paraclinical investigations and their use in diagnosis	The student demonstrates, applies and correctly uses methods and tools specific to paraclinical investigations and correctly interprets the results.	The student evaluates, plans and decides on the investigations necessary for the diagnosis, assuming responsibility for the correctness and relevance of the results.
4	The student identifies, describes, explains and evaluates etiopathogenic mechanisms, clinical and paraclinical manifestations, diagnostic and treatment principles specific to respiratory and cardiovascular diseases	The student demonstrates, adapts and integrates the theoretical notions and practical skills necessary for the diagnosis, treatment and monitoring of patients, using specific clinical and paraclinical methods and techniques.	The student plans, implements and coordinates, under appropriate supervision, integrated medical interventions, assuming responsibility and collaborating interdisciplinary.

7. Accumulated specific competencies

Professional competencies	Identifying the disease and establishing the correct diagnosis of cardiovascular and respiratory system disorders Designing and applying a therapeutic plan appropriate to diseases of the cardiovascular and respiratory system The student provides patients with nursing services in general practice The student interacts professionally in research and professional environments The student synthesizes information The student thinks abstractly The student evaluates the physical situation of patients The student uses foreign languages in patient care
Transversal competencies	Responsible execution of professional tasks, in conditions of limited autonomy and qualified assistance Identifying the role in a team and taking over the responsibilities corresponding to the professional and personal profile but also practicing the leadership attitude. Works in teams Shows initiative Development of the algorithm of rapid medical thinking through clinical and paraclinical correlations Acquiring/practicing professional training by training critical thinking skills demonstrated through active participation in the course and internship/project. Involvement in scientific research activities by participating in the elaboration of reports, studies, specialized articles and initiation into the study of one of the bachelor's degree topics of the discipline (students who express this option) Protects the health of others. Shows empathy Digital Competent Efficient use of information sources and resources of communication and assisted professional training (Internet portals, specialized software applications, databases, online courses, etc.) both in Romanian and in an international language Entrepreneurial skills Identifying needs and challenges to be met Combining knowledge and resources to achieve valuable results Developing a vision to turn ideas into action

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Acquiring the notions of medical semiology in order to initiate the process of identifying the disease state and establishing the optimal diagnosis depending on the affected organ, structure or apparatus.
8.2. Specific objectives	- Description and pathophysiological interpretation of signs and symptoms characteristic of diseases of the respiratory and cardiovascular system - Study and acquisition of physical methods of examining patients. - Study and use of paraclinical examination techniques (laboratory examinations, functional explorations, etc.) of the patient, in order to establish the diagnosis of the disease. - Studying and acquiring the general semiology, of the respiratory and cardiovascular system, as well as of the clinical and paraclinical methods of correct examination and interpretation of the obtained data. - Formation of the capacity for analysis and synthesis in the interpretation of clinical and paraclinical data in order to formulate a diagnosis - Assimilation by students of the basic notions regarding the signs,

	symptoms and methods of examination of patients. - Presentation of a representative clinical case, following the clinical observation sheet, demonstrating symptoms and syndromes as well as paraclinical data. - Demonstration of paraclinical investigation methods - Formulation of a positive diagnosis supported by clinical and paraclinical data.
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9. Contents

9.1. Course	Teaching methods	Comments
<u>GENERAL SEMIOLOGY</u>	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
1. Clinical observation sheet (components, importance, anamnesis).		
2. Present state (attitude, pathological gait, abnormal movements, physiognomy, mental state, body deformities, examination of the skin). Examination of the muscular system, lymph nodes, thermal curve and significance of pathological aspects, oedema	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
3.. <u>SEMIOLOGY OF THE RESPIRATORY SYSTEM</u> Peculiarities of anamnesis in diseases of the respiratory system and functional and general symptoms in respiratory semiology,	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
4. Objective clinical examination: inspection, palpation, percussion and listening of the respiratory system.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
5. Methods of paraclinical exploration of the respiratory system	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
6. Clinical syndromes of the respiratory system: bronchial syndromes (acute and chronic bronchitis, bronchiectasis, bronchial asthma, bronchial obstruction), clinical pulmonary syndromes (condensation, suppuration, pulmonary emphysema, cavity syndrome, pulmonary tumours).	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
7. Clinical syndromes of the respiratory system: pleural syndromes (pleural effusion, pneumothorax, pulmonary scaffolding), mediastinal syndrome, clinical respiratory failure syndrome.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
8. <u>SEMIOLOGY OF THE CARDIOVASCULAR SYSTEM</u> The particularities of the anamnesis and the main functional and general symptoms (dyspnoea of cardiac origin, precordial pain, palpitations, hepatalgia in cardiac patients, cardiac cough, haemoptysis of cardiac origin, fever in cardiac patients, dyspeptic disorders in cardiac patients, etc.); Lipothymia, syncope, shock, collapse	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
9. General inspection of cardiac patients (facies, cyanosis, attitude, pallor, cardiac oedema); segment inspection, inspection, palpation and percussion of the precordial region	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
10. Listening to the Heart	Participatory lecture, Interactive presentation of the material according to the syllabus, using	2

	multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	
11. Semiology of arteries and veins (pulse, acute and chronic peripheral ischemia syndrome, phlebotic syndrome and chronic venous insufficiency)	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
12.. Paraclinical exploration of the cardiovascular system	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
13 Cardiac syndromes (valvular, myocardial, coronary, clinical syndrome of rhythm disorders)	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2
14.Cardiac syndromes (pericardial syndrome, hypertensive syndrome, clinical heart failure syndrome).	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2

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- 1.Uzum Amelia, Medical Semiology, Course Support, 2025
- 2.Semiologia medicală-Aparatul respirator , Aparatul cardiovascular – I. A. Riviş – Ed. Mirton Timișoara, 1997,
3. Semiologie medicală – D. Georgescu, coordonator. Ed. Național, 2004,
- 4.Harrison Principiile Medicinii Interne, vol I și II – A.S. Fauci, E. Braunwald, K.J. Isselbacher, J.D. Wilson, J. B. Martin, D. L. Kasper, S. L. Hauser, D. L. Longo
- 5.Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey
- 6.Anna R Dover, J. Alastair Innes, Karen Fairhurst - Macleod's Clinical Examination, Elsevier ISBN 9780323847704, 2023
7. Rainier P. Soriano, MD - Bates' Guide To Physical Examination and History Taking, Fourteenth, North American, ISBN 978-1975218348, 2025

9.2. Seminar / laboratory	Teaching methods	Comments
<u>1. GENERAL SEMIOLOGY</u> Clinical observation sheet (components, importance, anamnesis).	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the general clinical observation sheet	4
2.Present state (attitude, pathological gait, abnormal movements, physiognomy, mental state, body deformities, examination of the skin). Examination of the muscular system, lymph nodes, thermal curve and significance of pathological aspects, oedema	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
<u>3. SEMIOLOGY OF THE RESPIRATORY SYSTEM</u> Peculiarities of anamnesis in diseases of the respiratory system and functional and general symptoms in respiratory semiology,	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
4.Objective clinical examination: inspection, palpation, percussion and listening of the respiratory system.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
5.Paraclinical exploration methods: pleural puncture, pleural fluid examination, sputum examination, bronchoscopy, scintigraphy,	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture	4

ultrasound, radiological examination, computed tomography, respiratory functional exploration etc.	combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	
6.Clinical syndromes of the respiratory system: bronchial syndromes (acute and chronic bronchitis, bronchiectasis, bronchial asthma, bronchial obstruction), clinical pulmonary syndromes (condensation, suppuration, pulmonary emphysema, cavity syndrome, pulmonary tumours).	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
7.Clinical syndromes of the respiratory system: pleural syndromes (pleural effusion, pneumothorax, pulmonary scaffolding), mediastinal syndrome, clinical respiratory failure syndrome.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
8. <u>SEMIOLGY OF THE CARDIOVASCULAR SYSTEM</u> The particularities of the anamnesis and the main functional and general symptoms (dyspnoea of cardiac origin, precordial pain, palpitations, hepatalgia in cardiac patients, cardiac cough, haemoptysis of cardiac origin, fever in cardiac patients, dyspeptic disorders in cardiac patients, etc.); Lipothymia, syncope, shock, collapse	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
9.General inspection of cardiac patients (facies, cyanosis, attitude, pallor, cardiac oedema); segment inspection, inspection, palpation and percussion of the precordial region.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
10.Listening to the Heart.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
11.Semiology of arteries and veins (pulse, acute and chronic peripheral ischemia syndrome, phlebitic syndrome and chronic venous insufficiency.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
12.Paraclinical exploration (EKG, cardiac ultrasound, coronary angiography, cardiac scintigraphy, radiological examination etc.).	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
13.Cardiac syndromes (valvular, myocardial, coronary, clinical syndrome of rhythm disorders)	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
14.Pericardial, hypo- and hypertensive syndrome, clinical syndrome of heart failure	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases	4
Bibliography 1. Uzum Amelia Dana, Medical Semiology, Course Support, 2025 2.Semiologia medicală-Aparatul respirator , Aparatul cardiovascular – I. A. Riviş – Ed. Mirton Timișoara, 1997, 3. Semiologie medicală – D. Georgescu, coordonator. Ed. Național, 2004,		

4.Harrison Principiile Medicinii Interne, vol I și II – A.S. Fauci, E. Braunwald, K.J. Isselbacher, J.D. Wilson, J. B. Martin, D. L. Kasper, S. L. Hauser, D. L. Longo
5.Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey
6. Anna R Dover, J. Alastair Innes, Karen Fairhurst - Macleod's Clinical Examination, Elsevier ISBN 9780323847704, 2023
7. Rainier P. Soriano, MD - Bates' Guide To Physical Examination and History Taking, Fourteenth, North American, ISBN 978-1975218348, 2025

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

The contents of the Medical Semiology subject were corroborated with the expectations of the representatives of the academic community, professional associations and employers in the medical field, in order to ensure the coherence between the theoretical and practical training.

The syllabus reflects the current requirements of clinical practice, the standards of the Romanian College of Physicians, the recommendations of the specialized society and the skills necessary for the effective integration of graduates into the health system.

The subject is developed on the basis of textbooks from a nationally and internationally recognized field.

The acquisition of the notions presented in the courses and practical works, respectively the notions of medical semiology, are necessary in order to initiate the process of identifying the state of illness and establishing the optimal diagnosis depending on the evaluated organ, structure or apparatus

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	Theoretical knowledge acquired (quantity, accuracy) from the course taught	Writing exam of essay type	50%
11.5. Seminar/ laboratory	Theoretical and practical knowledge acquired (quantity, accuracy), ability to explain and interpret the learned notions, complete and correct resolution of requirements.	Applicative activities - case presentations, projects. Verification tests during the semester	20%
		Practical exam before the final exam	30%
11.6. Minimum performance standard	1.Knowledge of the signs and symptoms of respiratory and cardiovascular diseases 2. Correct approach to the patient with respiratory and cardiovascular diseases 3. Correct use of medical language; 4. Minimum grade 5 in the practical exam and in the essay exam in the session		

Date of completion
22 Sept. 2025

Signature of the course holder

Lecturer
Uzum Amelia MD PhD

Signature of seminar holder

Lecturer
Uzum Amelia MD PhD
Univ. assist.
Burciu Călin MD PhD
Univ. assist.
Grada Sebastian MD PhD
Univ. assist.
Jigău Oana MD PhD

Date of department endorsement
25 Sept. 2025

Signature of the Head of Department

SUBJECT DESCRIPTION SURGICAL SEMIOLOGY

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Medicine
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Surgical Semiology						
2.2. Holder of the course activities	Prof. Totolici Bogdan MD PhD						
2.3. Holder of the seminar activities	Prof. Totolici Bogdan MD PhD Univ. assist. Rosu Mihai Catalin MD PhD candidate Univ. assist. Silvestru Vlad Constantin PhD candidate						
2.4. Year of studies:	3	2.6. Semester	I	2.6. Type of assessment	Exam	2.7. Subject regime	DD

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	6	3.2. out of which course	2	3.3. seminar/laboratory	4
3.4. Total hours in the curriculum	84	3.5. out of which course	28	3.6. seminar/laboratory	56
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					25
Additional documentation in the library, on the digital specialized platforms and on site					25
Preparing seminars/ laboratories, topics, reports, portfolios and essays					8
Mentoring					2
Examinations					4
Other activities: participation in workshops, open days, scientific clubs, etc.					2
3.7. Total hours of individual study	66				
3.8. Total hours per semester	150				
3.9. Number of credit units	6				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Knowledge of anatomy, physiology
4.2. Competencies-related	-

5. Requirements (where applicable)

5.1. for developing the course	Classroom with video projector, laptop, internet access, smart board
5.2. for developing the seminar/ laboratory	Surgery Clinical Department II

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student identifies, describes and explains fundamental notions regarding the characteristics of the healthy human body, structural (anatomical, histological, cellular and molecular) and functional (physiological, biochemical, biophysical), as well as the principles of methods of investigation of biological functions.	The student correctly interprets and applies the fundamental notions regarding the structure and functions of the human body and the methods of investigating biological functions.	Student Integrates fundamental notions and methods of investigation of biological functions, formulates and assumes reasoned conclusions regarding the state of health or disease.

¹ The learning results must be selected from among the three groups.

2	The student identifies, describes, explains and classifies the mechanisms of disease production, risk factors, pathogens (bacteria, viruses, parasites) and types of immune response, as well as the development of pharmacological and genetic approaches.	The student correctly interprets and applies the fundamental notions regarding the mechanisms of disease production and the methods of investigation of biological functions.	The student integrates fundamental notions and methods of investigation of biological functions, formulates and assumes reasoned conclusions regarding the general mechanisms of disease production and general principles of treatment.
3	The student describes, identifies and explains the fundamental principles of paraclinical investigations and their use in diagnosis and treatment.	The student demonstrates, applies and correctly uses methods and tools specific to paraclinical investigations and correctly interprets the results.	The student evaluates, plans and decides on the investigations necessary for the diagnosis, assuming responsibility for the correctness and relevance of the results.
4	The student recognizes, evaluates and classifies the signs and symptoms associated with different pathological states, using semiological principles, for the correct understanding of the diagnostic process.	The student demonstrates, applies and correctly interprets clinical examination methods and techniques for formulating a diagnosis.	The student develops and coordinates clinical examination activities, proposes and assumes the clinical diagnosis based on the principles of semiology.
5	The student describes, explains and identifies the roles and responsibilities, communication and relationship techniques, in the real and virtual environment, within the professional team and in the interaction with the patient and family, adapted to various categories: age, disabilities, etc.	The student demonstrates and correctly, appropriately and effectively implements patient-centred communication methods and techniques, in order to encourage active patient involvement and establish relationships based on trust.	The student designs, plans and applies communication and relationship strategies within the professional team, as well as in the interaction with the patient and his family, assuming an active role in their medical education.

7. Accumulated specific competencies

Professional competencies	The student manages personal professional development The student synthesizes information The student thinks abstractly The student assesses the physical situation of the patients Professional involvement Organized communication Professional collaboration Adequate knowledge about the relationships between the state of health and the social and physical environment of the human being; Appropriate knowledge of surgical disciplines and clinical practices that provides a coherent picture of surgical conditions from the perspective of prophylaxis, diagnosis, therapy Useful clinical experience in the clinical surgery department, under proper supervision. Identifying the disease condition and establishing the correct diagnosis of the surgical condition(s) Identification of diagnostic and evolutionary particularities and examination of the patient with surgical conditions and initiation and conduct of scientific research activities in the field of competence The student uses foreign languages in patient care
Transversal competencies	Responsible performance of professional duties, under conditions of limited autonomy and qualified support

	Identifying the role in a team and assuming responsibilities according to the personal and professional profile Developing the capacity for critical constructive reflection at the level of his/her own level of professional training, in accordance with the standards of the profession Identification of the achievement objectives, the available resources, the conditions for their completion, the work stages, the working time, the related achievement deadlines and the related risks Identifying the role of a team and assuming responsibilities according to the personal and professional profile Show initiative Think fast Protect the health of others Digital skills Evaluation of data, information and digital content Collaboration through digital technologies Entrepreneurial skills Identifying needs and challenges to be met Visualize future scenarios to help guide efforts and actions
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8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Knowledge and understanding of the notions of surgical semiology and minor surgery that make it possible to establish a diagnosis of conditions that require surgical treatment, by mastering a well-organized informational baggage, structured on the fundamental notions;
8.2. Specific objectives	- Knowledge of the principles of anaesthesiology, especially local anaesthesiology - Mastery of fundamental logical thinking, clinical and paraclinical, integrated and flexible, which works efficiently with the available data, with mastery of the methodology and specific minimum skills in the clinical examination of patients with surgical conditions (medical history, clinical examination), in the indication and interpretation of paraclinical investigations. - Knowledge and brief understanding of the notions that make it possible to establish a diagnosis of conditions that require surgical treatment, by mastering a well-organized informational baggage, structured on the fundamental notions - Knowledge and understanding briefly of the principles of surgical treatment - Mastering a basic, integrated and flexible logical clinical-paraclinical thinking that operates efficiently with the available data - Explanation and brief interpretation of the anatomo-physio-pathological foundations and highlighting their relationship with the clinical and paraclinical manifestations of surgical diseases - Analytical and synthetic deepening in brief, logical and without loading with "ballast" elements, of clinical symptoms and signs, as well as correct interpretation of paraclinical investigations - Brief explanation of the principles of pre-, intra- and postoperative surgical treatment - Logical and organized integration of basic theoretical data with those acquired through paraclinical analyses and explorations in an operational unitary capable of establishing a correct diagnosis and as early as possible - Mastery of the methodology and specific minimum skills in the clinical examination of surgical patients (anamnesis, objective clinical examination) and in the indication and interpretation of paraclinical investigations (laboratory tests, X-ray, ultrasound, endoscopy, CT, MRI, histopathological examination, etc.) - Mastery of the methodology and practical skills necessary to perform basic diagnostic and therapeutic manoeuvres for medical-surgical practice (venipuncture, collection of pathological products, injections, infusions, transfusions, use of antiseptics, dressings, use of nasogastric and urinary aspiration tubes, stomach lavage, evacuator enema, punctures, incisions, skin sutures, ligatures, mastery of sterilization principles, etc.)

	- Mastering the methodology and practical skills necessary to perform local anaesthesia - Presentation of significant clinical cases - Assisting with surgeries and small interventions
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9. Contents

9.1. Course	Teaching methods	Comments
Semiology of surgical infections	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of thyroid glans	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the mammary gland	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Thoracic surgical semiology	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Pleuro-pulmonary surgical semiology	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the abdominal wall	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the oesophagus	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the stomach and duodenum	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint	2

	presentations, educational software, summary evaluation of knowledge at the end of the course	
Surgical semiology of the small intestine	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the appendix	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the colon	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the rectum and annus	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the liver	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Surgical semiology of the extrahepatic bile ducts	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations, educational software, summary evaluation of knowledge at the end of the course	2
Bibliography: 1. Papiu Horatiu, Totolici Bogdan, Neamtu Carmen, Surgical Semiology, course support, 2025 2. BRUNICARDI F.C., ANDERSEN D.K., BILLIAR T.R., DUNN D.L., HUNTER J.G., MATTHEWS J.B., POLLOCK R.E., (2019), <i>SCHWARTZ - Principiile chirurgiei</i>, varianta tradusă, ediția X, Editura All Medicină, 2096 pagini, ISBN: 978-606-587-305-6 3. https://www.romedic.ro/arata_img.php?img=anatomie_87_16.jpg&w=520&h=1000&cale=/uploadart/anatomie. 4. NEAMTU C., (2007), <i>Elemente de patologie chirurgicala – pentru studenti</i>, Editura Vasile Goldiş University Press, Arad, 167 pagini ISBN : 978-973-664-195-4 5. NEAMTU C., DUMNICI A., (2010), <i>Patologie chirurgicala</i>, Editura Vasile Goldiş University Press, Arad, 429 pagini ISBN : 978-973-664-421-4 6. PAPILIAN V. (2011), <i>Anatomia omului-Splanhnologia</i>, vol II, editia XII, Editura ALL, 376 pagini, ISBN: 978-973-571-691-7 7. TOTOLICI B., NEAMTU C., BOTA N., (2014), <i>Tratat de semiologie chirurgicala</i>, Editura Vasile Goldiş University Press, Arad, 528 pagini, ISBN : 978-973-664-700-0		

8. TOTOLICI B., NEAMTU C., Semiologie chirurgicala, curs LITO, UVVG, 2025
9. Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey
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11. Ian B. Wilkinson, Tim Raine, Kate Wiles, Peter Hateley, Dearbhla Kelly, Iain McGurgan, Oxford Handbook of Clinical Medicine (Oxford Medical Handbooks) Oxford University Press, ISBN 0198844018, 2024

9.2. Seminar / Laboratory	Teaching methods	Comments
Asepsis, antisepsis and sterilization	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Recognition and use of surgical instruments, incision, excision, haemostasis, suturing, surgical threads and knots, drainage, massage.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Types of probes, use	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Evacuator enema	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Dressings	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Injections, perfusions, transfusions.	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the	4

	observation sheet, objective examination, presentation of surgical interventions	
Punctures, aspiration, biopsy	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
General and apparatus clinical examination, local examination	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Asepsis, antisepsis and sterilization	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Recognition and use of surgical instruments: incision, excision, haemostasis, sutures, knots, surgical threads, drainage, mixing	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Drainage tubes, use	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Evacuator enema	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Dressings	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-	4

	visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	
Injections, perfusions, transfusions	Participatory lecture with methods of effective action, interrogative methods, discussion method, problematization method, lecture combined with audio-visual means, educational software, demonstration, presentation and simulation of cases, completion of the observation sheet, objective examination, presentation of surgical interventions	4
Bibliography 1. Papiu Horatiu, Totolici Bogdan, Neamtu Carmen, Surgical Semiology, course support, 2025 2. ANGELESCU N.,(2003), <i>Patologie Chirurgicală pentru admitere în Rezidențiat</i>, volumul I și II , Editura Celsius, București, 1184 pagini, ISBN : 973-90531-8-8 3. https://www.scientia.ro/images/stories/articles/2012/aprilie/10/ficatul_uman.jpg. 4. MERCUT D., GOGĂNĂU A., (2021), <i>Semiologie chirurgicală. Lucrări practice.</i>, Editura SITECH, 137 pagini, ISBN: 606-11-6571-1 5. MOLNAR C., COPOTIU C., BOTONCE M., BUTIURCĂ V., (2019), <i>Elemente de semiologie chirurgicală pentru studenți</i>, volumul I, Editura University Press, ISBN: 978-973-169-027 6. RĂZEȘU V, TÂRCOVEANU E., (2004), <i>Chirurgie Generală</i>, Editura Răzeșu, 695 pagini, ISBN : 973-99066-6-4 7. TÂRCOVEANU E., (2003), <i>Tehnici chirurgicale</i>, Editura Polirom, Iași, 486 pagini, ISBN: 973-681-372-X 8. TOTOLICI B., NEAMTU C., Semiologie chirurgicala, curs LITO, UVVG, 2025 9. Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey 10. Anna R. Dover,J. Alastair Innes,Karen Fairhurst, Macleod's Clinical Examination, 15th Edition, Elsevier, ISBN 9780323847704, 2023 11. Ian B. Wilkinson, Tim Raine ,Kate Wiles , Peter Hateley , Dearbhla Kelly, Iain McGurgan, Oxford Handbook of Clinical Medicine (Oxford Medical Handbooks) Oxford University Press, ISBN 0198844018, 2024		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

- The subject is developed on the basis of textbooks from a nationally and internationally recognized field.
- The teacher has a doctorate in the field of surgery;
- Some of the elements presented during the course and seminar were debated at national and international conferences and lectures.
- The acquisition of the notions presented in the courses and practical works, respectively the notions of surgical semiology, are necessary in order to initiate the process of identifying the disease state and establishing the optimal diagnosis depending on the affected organ, structure or apparatus.
- the subject is necessary to prepare the future for employment on the national and international labour market

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	Theoretical knowledge acquired (quantity, accuracy) from the course taught	Writing paper – essay type	50%
11.5. Seminar/ laboratory	Theoretical and practical knowledge acquired (quantity, accuracy), ability to explain and interpret the learned notions, complete and correct resolution of requirements.	- Practical exam.	30%
		- Ongoing semester testing - Control papers - scientific activities (Arad	20%

		Academic Days, etc.)	
11.6. Minimum performance standard			
1. The student knows what the main concepts are, recognizes them and defines them correctly;			
2. The specialized language is simple, but correctly used;			
3. Minimum grade 5 in the practical exam and in all forms of evaluation			

Date of completion

22 Sept. 2025

Signature of the course holder

Prof. Totolici Bogdan MD PhD

Signature of seminar holder

Prof. Totolici Bogdan MD PhD

Univ. assist. Rosu Mihai Catalin
MD PhD candidate

Univ. assist. Silivestru Vlad
Constantin MD PhD candidate

Date of department endorsement

25 Sept. 2025

**Signature of the Head of
Department**

SUBJECT DESCRIPTION PRIMARY HEALTH CARE

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Medicine
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Primary Healthcare						
2.2. Holder of the course activities	Lecturer Turcin Luminița MD PhD						
2.3. Holder of the seminar activities	Lecturer Turcin Luminița MD PhD Univ. assist. Bugari Radmila MD PhD candidate						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	Exam	2.7. Subject regime	DD

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	1	3.3. Seminar / laboratory	1
3.4. Total hours in the curriculum	28	3.5. out of which course	14	3.6. Seminar / laboratory	14
Distribution of time					hours
Study by the textbook, lecture notes, references, and notes					7
Additional documentation in the library, on the digital specialized platforms and on site					3
Preparing seminars/ laboratories, topics, reports, portfolios, and essays					5
Mentoring					2
Examinations					3
Other activities: participation in workshops, open days, scientific clubs, etc.					2
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	-
4.2. Competencies-related	-

5. Requirements (where applicable)

5.1. for developing the course	Classroom with video projector, laptop, internet access, interactive whiteboard
5.2. for developing the seminar/ laboratory	Practical Activity Room

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student describes, explains, and analyses fundamental concepts and principles of public health, management, epidemiology, and hygiene, as well as their relationship with disease prevention and health promotion.	The student correctly applies the methods of characterizing the health status of the population and the environment and intervening to maintain it.	The student plans, integrates, and organizes interventions to improve public health; manages prevention programs and assumes responsibility for the implementation of ethical measures in the health field.
2	Understanding individual patient data	Capitalising primary care data in medical practice	History of an adult patient with medical conditions and comorbidities
3	Knowledge of community health analysis;	listing the paraclinical investigations necessary to establish a positive and differential diagnosis in the main	evaluation of results and interpretation of paraclinical tests

¹ The learning results must be selected from among the three groups.

		diseases;	
4	Knowledge of disease prevention concepts at the individual and community level;	recognizing and resolving health issues in a community;	recognizing and solving health issues to ensure professional fulfilment in optimal conditions.
5	Initiation and conduct of scientific and/or educational research in the field of internal medicine.	Structuring and conducting research and formalizing it into a coherent and feasible project.	Effective use of bibliographic databases for medical documentation.

7. Accumulated specific competencies

Professional competencies	The student manages his/her own professional development The student synthesizes information Research Data Management
Transversal competencies	Demonstrate initiative Work as a team Demonstrate empathy Digital skills Continuous digital professional development Create and edit Active Student Engagement Use of IT tools for medical records, occupational medicine reports, and professional documentation. Entrepreneurial skills Identifying needs and challenges to be met Combining knowledge and resources to achieve valuable results Developing a vision to turn ideas into action

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Understanding community health concepts to initiate the process of identifying diseases and establishing primary prevention methods based on the affected organ or system for primary health care.
8.2. Specific objectives	• Understanding patient information • Knowledge of the analysis of the patient's health status • Capitalizing on data from primary health care • Collaborative research with a team on the role of specific risk factors for health - population-based research • Courses and evaluations with coordinated projects of the subject

9. Contents

9.1. Course	Teaching methods	Comments
Primary healthcare – Definition, Basic Concepts, Primary Care According to the Alma Ata Declaration.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Primary healthcare and health service reform. Millennium Development Goals	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Human communities: definitions, characteristics, school communities, university communities	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Primary Healthcare – Family Medicine: Principles, Functions, Services. Community Health. Investigation methods.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Prevention in primary health care	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours

Primary prevention of respiratory diseases in primary healthcare	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Primary prevention of cardiovascular disease in primary care	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Primary prevention in metabolic diseases	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Primary prevention in digestive diseases in primary healthcare	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Addictions, dependents, alcoholism	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour
Scientific research in primary health care – premises	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	1 hour

Bibliography:

Corina Zorila, Fură Roxana, Turcin Luminița – Primary health care, course support, 2025

Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey

Anthony Fauci, Dan Longo - Harrison's principles of internal medicine 22nd edition, All Medical, ISBN 786065873742, 2022

9.2. Seminar / Laboratory	Teaching methods	Comments
Consultation in the practice of family medicine. Specifics. Discussion of the clinical case.	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Specifics of symptom management. Treatment for various symptoms.	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Primary prevention, diagnostic algorithms, and treatment for the most common respiratory conditions from the perspective of the family physician(MF).	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Primary prevention, diagnostic algorithms, and treatment for the most common cardiovascular diseases from the perspective of family medicine.	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Primary prevention, diagnostic algorithms, and treatment of the most common digestive diseases from the perspective of family medicine	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Primary prevention, diagnostic algorithms, and treatment of the most common rheumatological diseases from the perspective of family medicine	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour

Primary prevention, diagnostic algorithms, and treatment of the most common haematological diseases	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Primary prevention, diagnostic algorithms, and treatment of the most common diseases of the renal system	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Primary prevention, diagnostic algorithms, and treatment of the most common neurological diseases	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Mental health in family medicine practice: primary prevention	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Pre-hospital emergencies in surgery, orthopaedics, and traumatology	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Acute surgical abdomen: pre-hospital diagnosis and treatment, primary prevention	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	1 hour
Smoking, excessive alcohol consumption and drug use: the role of the family doctor	Participatory lecture with methods of effective action, interrogative methods, method of discussions, method of problematization, lecture combined with audio-visual means, educational software, demonstration, presentation, and simulation of cases	2 hours
Bibliography: Corina Zorila, Furău Roxana, Turcin Luminița – Primary health care, course support, 2025 Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey Anthony Fauci, Dan Longo - Harrison's principles of internal medicine 22nd edition, All Medical, ISBN 786065873742, 2022		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

- The subject is developed based on certain manuals in the nationally recognized field, thematic for the family medicine specialty. - Knowledge of the notions of primary care allows graduates to enter the labour market more easily

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	Theoretical knowledge acquired (quantity, accuracy) from the course taught	Written paper essay	50%
11.5. Seminar/ laboratory	Theoretical and practical knowledge acquired (quantity, accuracy), ability to explain and interpret the learned notions, complete and correct resolution of requirements.	- Applicative activities: practical exercises/projects, etc. - Scientific activities	20%
		Compulsory, eliminatory practical exam	30%
11.6. Minimum	Knowledge and understanding of the main situations encountered in the outpatient practice of		

performance standard	primary care and of the possibilities of diagnosis and treatment Evaluation score at least 50%
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Date of completion
22 Sept. 2025

Signature of the course holder
Lecturer
Turcin Luminița MD PhD

Signature of seminar holder
Lecturer
Turcin Luminița MD PhD
Univ. assist. Bugari Radmila MD
PhD candidate

Date of department endorsement
25 Sept. 2025

**Signature of the Head of
Department**

SUBJECT DESCRIPTION

CLINICAL INTERNSHIP IN MEDICAL AND SURGICAL SUBJECTS – PRACTICAL SKILLS/ SHIFTS

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Medicine
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Clinical Internship in Medical and Surgical Subjects – Practical Skills/ Shifts						
2.2. Holder of the course activities							
2.3. Holder of the seminar activities	Lecturer Zdremțan Dana MD PhD						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	Colloquium	2.7. Subject regime	DS

3. Total estimated duration (hours per semester of didactic activities))

3.1. Number of hours per week	3	3.2. out of which course		3.3. seminar/laboratory	3
3.4. Total hours in the curriculum	42	3.5. out of which course		3.6. seminar/laboratory	42
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					
Additional documentation in the library, on digital specialized platforms and on site					8
Preparing seminars/ laboratories, topics, reports, portfolios and essays					
Mentoring					
Examinations					
Other activities					
3.7. Total hours of individual study	8				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	-
4.2. Competencies-related	Knowledge of performing anamnesis and objective examination of the patient

5. Requirements (where applicable)

5.1. for developing the course	
5.2. for developing the seminar/ laboratory	Clinical Departments

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student recognizes the signs and symptoms associated with different pathological states, using the principles	The student correctly demonstrates clinical examination methods and techniques for formulating a	The student develops and coordinates clinical examination activities

¹ The learning results must be selected from among the three groups.

	semiological, for the correct understanding of the diagnostic process.	diagnosis.	
2	The student assesses the signs and symptoms associated with various pathological states, using the principles semiological, for the correct understanding of the diagnostic process.	The student correctly applies clinical examination methods and techniques for formulating a diagnosis.	The student proposes and assumes the clinical diagnosis based on the principles of semiology.
3	The student classifies the signs and symptoms associated with different pathological states, using the principles semiological, for the correct understanding of the diagnostic process.	The student correctly interprets clinical examination methods and techniques for formulating a diagnosis.	The student develops and coordinates patient investigation activities
4	The student knows the evaluation of the patient through objective examination and anamnesis	The student demonstrates that he is able to perform an objective examination of the patient	The student proposes a clinical diagnosis based on the evaluation through the objective examination and anamnesis

7. Accumulated specific competencies

Professional competencies	Identifying the state of illness and establishing the correct diagnosis of the condition(s). Design and application of a therapeutic plan appropriate to the identified condition(s). Correct assessment of the risk of disease or the context of the occurrence of an individual/collective disease, followed by the choice and application of appropriate prophylaxis measures. Approaching health/disease problems from the perspective of the particularities of the community, in direct relation to the social, economic and/or cultural conditions of that community. Initiation and conduct of a scientific and/or formative research activity in its field of competence Efficiently and effectively performing the managerial tasks imposed by certain professional roles The student uses foreign languages in patient care The student assesses the physical situation of the clients The student synthesizes information The student thinks abstractly The student assesses the physical situation of the clients
Transversal competencies	Responsible execution of professional tasks, in conditions of limited autonomy and qualified assistance Identification of the objectives to be achieved, the available resources, the conditions for their completion, the work stages, the working times, the related deadlines and the related risks Carrying out projects under coordination, in order to solve problems specific to the field, with the correct assessment of the workload, available resources, the necessary time for completion and the risks, under the conditions of application of the deontological norms and professional ethics in the field, as well as occupational health and safety Familiarity with specific roles and activities of teamwork and distribution of tasks for subordinate levels Identifying roles and responsibilities in a multidisciplinary team and applying

	techniques for networking and efficient work within the team and in relation to the patient Carrying out a work/project, responsibly executing tasks specific to the role in a multidisciplinary team Awareness of the need for continuous training; effective use of learning resources and techniques for personal and professional development Efficient use of information sources and resources of communication and assisted professional training (Internet portals, specialized software applications, databases, online courses, etc.) both in Romanian and in an international language Elaboration, typesetting and support in Romanian and in an international language of a specialized work on a current topic in the field, using various sources and information tools Digital skills Continuous digital professional development Create and edit Active Student Engagement Use of IT tools for medical records, occupational medicine reports and professional documentation. Entrepreneurial skills Identifying needs and challenges to be met Combining knowledge and resources to achieve valuable results Developing a vision to turn ideas into action
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8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Complementing the practical experience regarding the evaluation of the patient through anamnesis and objective examination, by applying the notions learned to medical semiology and surgical semiology, first aid
8.2. Specific objectives	- Performing the anamnesis, the complete clinical examination, as well as some basic diagnostic manoeuvres, requesting appropriate complementary examinations, formulating a positive and differential diagnosis - Making an individualized therapeutic plan and performing basic therapeutic manoeuvres, including those aimed at qualified first aid - Developing a primary, secondary and tertiary prophylaxis plan in a given situation. - Designing a plan to correct specific factors that negatively influence the health of a community. - Elaboration of a research project for a given subject of study, with the identification of the potential and limits of the project - Developing a management plan and coordinating the team to carry out specific professional activities - Judicious use of bibliographic resources - Application of knowledge on patient rights

9. Contents

9.1. Course	Teaching methods	Comments
Bibliography:		
9.2. Seminar/laboratory	Teaching methods	Comments
1.Presentation of the department, observation sheet, circuits	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
2.Anamnesis, examination of skin and mucous membranes, lymph nodes, osteoarticular system, detection and measurement of vital parameters	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3

3. Anamnesis, examination of the respiratory system and paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
4. Anamnesis, examination of the respiratory system and paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
5. Anamnesis, examination of the respiratory system, paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
6. Anamnesis, examination of the respiratory system, paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
7. Anamnesis, examination of the cardiovascular system, paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
8. Anamnesis, examination of the cardiovascular system, paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
9. Anamnesis, examination of the cardiovascular system, paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
10. Anamnesis, examination of the cardiovascular system, paraclinical investigations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
11. Anamnesis, examination of the digestive system, paraclinical explorations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
12. Anamnesis, examination of the digestive system, paraclinical explorations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
13. Anamnesis, examination of the renal system, paraclinical explorations	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
14. Anamnesis, clinical examination in rheumatic diseases	Internship/on-call practical activity in medical departments, by coordinating specialists / attending physicians	3
Bibliography: Miutescu Eftimie, Iovănescu Dana, Medical Semiology, Course Support, 2025 Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey Le Book des ECN, redactor Laurent Karila, online		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

The subject is developed according to the expectations of the representatives of the epistemic community, professional associations and representative employers because it complements the activities at the patient's bedside in order to provide a good practical preparation for the student/future graduate

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course (Exam)	-	-	-
11.5. Seminar/laboratory	- knowledge and understanding; - complete and correct resolution of the requirements. - filling in five practical cases that the student has carried out in medical departments in the internship booklet, among the cases that are considered the most representative and with particularities	Evaluation by the teacher from the respective department on the correct methods of patient evaluation by the student (anamnesis, objective examination, complementary methods). Registration in the internship book of the date on which the student performed the patient evaluation, with initials and signature The final grading is made by the internship coordinators	100%
11.6. Minimum performance standard:			
1. The student actively participates in the evaluation of the patient 2. The student respects the patient's rights			

Date of completion
15 Sept. 2025

Signature of the course holder

Signature of seminar holder
Lecturer

Zdremțan Dana MD PhD

Date of department endorsement
25 Sept. 2025

Signature of the Head of Department

SUBJECT DESCRIPTION

HEALTHCARE AND SOCIAL LEGISLATION

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Healthcare and Social Legislation						
2.2. Holder of the course activities	Senior lecturer Grec Marcel PhD						
2.3. Holder of the seminar activities	-						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	C	2.7. Subject regime	DS Optional

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	2	3.3. Seminar / laboratory	0
3.4. Total hours in the curriculum	28	3.5. out of which course	28	3.6. Seminar / laboratory	0
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					8
Additional documentation in the library, on the digital specialised platforms and on site					6
Preparing seminars/ laboratories, topics, reports, portfolios and essays					-
Mentoring					2
Examinations					4
Other activities: Open day					2
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Going through the subjects of previous years, according to the curriculum, necessary to understand the professional and normative context of medical practice.
4.2. Competencies-related	Basic general knowledge of the organisation of the health system and introductory notions of public health

5. Requirements (where applicable)

5.1. for developing the course	Classroom equipped with video projector, interactive whiteboard and access to educational resources appropriate to the teaching process
5.2. for developing the seminar/ laboratory	Not applicable

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student knows the sanitary and social legislative framework applicable to the medical activity	The student identifies and interprets the legal norms relevant to medical practice	The student assumes professional responsibilities in compliance with health and social legislation
2	The student knows the rights and obligations of the doctor and the patient	Student applies health legislation in specific professional situations	The student demonstrates an ethical conduct that complies with professional norms
3	The student knows the deontological and ethical principles in medical activity	The student analyses the situations of legal risk in medical practice	The student respects the patient's autonomy and data privacy
4	The student knows the mechanisms of legal liability in the field of health	The student correctly uses basic legal terminology	The student is responsibly involved in the professional activity under guidance

¹ The learning results must be selected from among the three groups.

7. Accumulated specific competencies

Professional competencies	- application of the sanitary and social legislative framework in the current medical activity - identification and prevention of legal risk situations in medical practice - Respect for patient rights and legal obligations of medical staff - the use of health legislation in the documentation and reporting of medical activities - application of the health and social legislative framework in usual situations of medical practice (patient rights, informed consent, confidentiality, professional liability). - personal professional development management; - the development of abstract thinking; - ability to synthesize expert information; - professional interaction in professional environments specific to the health field; - applying the principles of ethics and professional integrity; - contributing to public health activities and campaigns; - protection of personal data and privacy; - protecting health and well-being in professional activity.
Transversal competencies	- Taking professional responsibility and respecting ethical principles - effective communication with patients and the medical team, within the limits of the legal framework - Effective multidisciplinary teamwork - Continuous professional self-development - assuming professional responsibility and respecting ethical and deontological principles within the limits of the legal framework - shows initiative; - thinks quickly in specific professional situations; - protects the health of others; - show empathy in the relationship with the beneficiaries of health services. - Digital skills - Assessment of data, information and digital content; Collaboration through digital technologies - Entrepreneurial skills - Identifying the needs and challenges that need to be met; Visualize future scenarios to help guide efforts and actions

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Capacity building for the application of the health and social legislative framework in medical practice The subject contributes to the understanding and application of the legal framework governing the doctor-patient relationship and professional responsibilities in the health system.
8.2. Specific objectives	Identification and interpretation of normative acts; the application of the legislation in medical practice; respect for the patient's rights; recognition of forms of legal liability Identification of the main legal obligations of the medical staff and the rights of the patient. Application of the basics of informed consent, confidentiality and professional liability.

9. Contents

9.1. Course	Teaching methods	Comments
1. Introduction to health and social legislation. General notions and regulatory framework	Interactive lecture, guided discussions	2 hours
2. Organization of the healthcare system in Romania	Interactive lecture, analysis of examples	2 hours
3. Fundamental normative acts in the health field	Interactive lecture, case study	2 hours
4. Patient's rights and obligations	Interactive lecture, guided discussions	2 hours
5. Rights and obligations of healthcare professionals	Interactive lecture, situation analysis	2 hours
6. Informed consent and confidentiality of medical data	Interactive lecture, case study	2 hours
7. Legal liability in the medical field	Interactive lecture, case analysis	2 hours
8. Medical malpractice: general notions	Interactive lecture, guided discussions	2 hours
9. Regulations on the exercise of the medical	Interactive lecture, analysis of examples	2 hours

profession		
10. Health insurance and the relationship with service providers	Interactive lecture, case study	2 hours
11. Legislative aspects of public health	Interactive lecture, guided discussions	2 hours
12. Occupational Health Regulations	Interactive lecture, situation analysis	2 hours
13. Medical ethics and professional deontology	Interactive lecture, guided discussions	2 hours
14. News and perspectives in health and social legislation	Interactive lecture, synthesis	2 hours

Bibliography

1. Grec, M. *Course Notes – Health and Social Legislation*. Universitatea de Vest „Vasile Goldiș” Arad, 2025.
2. European Commission. *EU Health Law and Policy*. Publications Office of the European Union, Luxembourg, 2022.
3. World Health Organization (WHO). *Global Health Law*. WHO Press, Geneva, 2023.
4. World Health Organization (WHO). *Patients’ Rights and Health Systems Governance*. WHO Press, Geneva, 2022.
5. McKee, M., Greer, S. L., Stuckler, D. *Health Policy and Politics*. Oxford University Press, Oxford, 2022.
6. Beauchamp, T. L., Childress, J. F. *Principles of Biomedical Ethics*. 8th Edition, Oxford University Press, Oxford, 2020.
7. Law no. 46/2003 on patients' rights, republished, with subsequent amendments and completions (consolidated form 2023).
8. Law no. 95/2006 on health reform, republished, with subsequent amendments and completions (consolidated form 2023–2024).
9. Nys, Herman (ed.). *European Union Health Law*. 5th Edition. Alphen aan den Rijn, The Netherlands: Wolters Kluwer, 2024. ISBN: 9789041189806
10. Educational software

Note - Given the dynamics of health and social legislation, the bibliography is updated periodically. The legislative changes that occurred during the study cycle will be communicated to the students and integrated into the teaching activities.

9.2. Seminar / Laboratory	Teaching methods	Comments
Not applicable		
Bibliography		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

- The content of the subject is in line with what is taught in other university centres in the country. The bibliography represents a harmonization of theoretical and practical information with that which students from other top universities acquire
- The contents of the subject are correlated with the requirements of the professional environment in the medical field and with the legislative framework applicable to health activities. The subject contributes to the formation of the capacity to apply legal norms in medical practice, in accordance with the requirements of the institutions in the health system and the professional responsibilities of the doctor.
- The contents of the subject support the formation of the capacity for legally compliant and responsible action in the current medical activity.

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	- Correct and complete knowledge of theoretical knowledge - Ability to integrate legislative mechanisms in a clinical context - Ability to correctly identify and cite relevant normative acts (laws, ordinances, government decisions) - Understanding the hierarchy of normative acts in the health and social field - Correct definition of specific terms (health law, social insurance, social protection, etc.) - The ability to explain the principles of the health and social care system in Romania - Capacity for analysis and synthesis of legislative texts - Argumentation of positions based on legal provisions	Colloquium - writing (editorial topics)	80%
		Evaluation during the semester: - 2 tests	20%

	- Updating knowledge in the context of frequent legislative changes		
11.5. Seminar/ laboratory	Not applicable		
11.6. Minimum performance standard	Knows and can define the fundamental terms Promotion with a minimum grade of 5 - The student identifies at least 5 fundamental normative acts in the health and social field - Recognizes the hierarchy of normative acts (Constitution → organic laws → ordinary laws → government decisions → ministerial orders) - Distinguishes between health and social legislation - Correctly define the concept of medical malpractice - Know the basic rights and obligations of the medical and health personnel - Identify specific rules on working hours in health facilities - Recognises situations of incompatibility and conflict of interest - Locate an article from a given normative act - Understand the structure of a normative act (articles, paragraphs, letters) - Notifies the changes made to a normative act compared to the initial form		

Date of completion

19.09.2025

Signature of the course holder

Senior lecturer Grec Marcel PhD

Signature of seminar holder

Date of department endorsement

25.09.2025

Signature of the Head of Department

Assoc. prof. Turcus Violeta PhD

SUBJECT DESCRIPTION

ETHICS AND NON-DISCRIMINATION OF VULNERABLE GROUPS IN THE HEALTHCARE SYSTEM

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Medicine
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Ethics and non-discrimination of vulnerable groups in the healthcare system						
2.2. Holder of the course activities	Lecturer Moț Maria Daniela MD PhD						
2.3. Holder of the seminar activities							
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	Colloquium	2.7. Subject regime	Optional Subject

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	2	3.3. Seminar / laboratory	0
3.4. Total hours in the curriculum	28	3.5. out of which course	28	3.6. Seminar / laboratory	0
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					10
Additional documentation in the library, on digital specialized platforms and on site					3
Preparing seminars/ laboratories, topics, reports, portfolios and essays					3
Mentoring					2
Examinations					2
Other activities: participation in workshops, open days, scientific clubs, etc.					2
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	-
4.2. Competencies-related	-

5. Requirements (where applicable)

5.1. for developing the course	Classroom with video projector / interactive whiteboard / laptop / internet access
5.2. for developing the seminar/ laboratory	

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student identifies, describes, and explains fundamental principles of ethics, bioethics, deontology, and academic integrity, as well as their applications in medical practice and research.	The student assesses and applies ethical and deontological principles in medical decision-making, research and academic work.	The student plans, organizes and decides on measures that comply with ethical norms in all professional and academic aspects.
2	The student describes, explains and identifies the roles and responsibilities, the communication and relationship	The student demonstrates and correctly, appropriately and effectively implements patient-centred communication methods	The student designs, plans and applies communication and relationship strategies within the professional team, as well as in the

¹ The learning results must be selected from among the three groups.

	techniques, in the real and virtual environment, within the professional team and in the interaction with the patient and family, adapted to various categories: age, disabilities, etc.	and techniques, in order to encourage active patient involvement and establish relationships based on trust.	interaction with the patient and his family, assuming an active role in their medical education
3	The student knows aspects regarding the non-discrimination of vulnerable groups in clinical practice	The student assesses and applies ethical principles in preventing discrimination in clinical practice	The student plans, organizes and decides on measures that comply with ethical norms in the prevention of discrimination in clinical practice
4	The student knows aspects regarding the non-discrimination of vulnerable groups in clinical research	The student assesses and applies ethical principles in preventing discrimination in clinical research	The student plans, organizes and decides on measures that comply with ethical norms in the prevention of discrimination in clinical research

7. Accumulated specific competencies

Professional competencies	The student manages personal professional development The student thinks abstractly The student synthesizes information The student demonstrates disciplinary expertise The student applies the principles of ethics and scientific integrity in research activities
Transversal competencies	Shows initiative Thinks fast Digital skills Continuous digital professional development Create and edit Entrepreneurial skills Identifying needs and challenges to be met Combining knowledge and resources to achieve valuable results Developing a vision to turn ideas into action

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Students will be able to know the ethical and legislative framework for the prevention of non-discrimination in the clinic and clinical research, with the obligations and duties arising from it, students will be able to apply the knowledge of the two in medical practice
8.2. Specific objectives	Students will be able to prevent discriminatory attitudes and behaviours like patients belonging to minorities of any kind Students will be able to improve access to quality medical services for vulnerable groups

9. Contents

9.1. Course	Teaching methods	Comments
Introductory concepts on some concepts and forms of discrimination	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Presentation of the most important principles and strategies contained in European anti-discrimination legislation	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	4 hours
Presentation of the Romanian anti-discrimination legislation and the National Council for Fighting Discrimination.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
The right to health, nature and content. Principles and discussions on the concept of health and the incidence of human rights.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint	2 hours

	presentations Discussions and summary evaluation at the end of the course	
The right to health under international law and Romanian law.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Discussing issues of medical responsibility in relation to non-discrimination.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Discussing medical liability in relation to patients, discussing the types of discrimination encountered in the health system with the presentation of the constitutional provisions and the provisions of the law on prevention and sanctioning discrimination.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Discussing the law on patients' rights	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	4 hours
Discussing ethical issues related to cultural diversity	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	4 hours
Perceptions and attitudes towards the phenomenon of discrimination in Romania. Presentation of the main groups vulnerable to discrimination.	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Ethics of research on human subjects	Participatory lecture, Interactive presentation of the material according to the syllabus, using multimedia means, interactive whiteboard, PowerPoint presentations Discussions and summary evaluation at the end of the course	2 hours
Bibliography: 1. Mot Dana, Course support cursuri.uvvg 2. Perju-Dumbravă, D, Rebeleanu, C, Ureche, D. (2019): Etică și non-discriminarea grupurilor vulnerabile în sistemul de sănătate. 3. Suport curs pentru studenți. Editura Medicală Universitară Iuliu Hațieganu, Cluj Napoca. Pp.1-94. 4. JOMPAN, AFILON. Medicina comunitara si medicina familiei. . Timisoara : Eurostampa, 2015, 413. ISBN 978-606-569-996-0 5. CURCA, GEORGE CRISTIAN. Elemente de etica medicala. Norme de etica in practica medicala. Despre principiile bioeticii. . Cluj Napoca : Casa Cartii de Stiinta, 2012, 249. ISBN 978-606-17-0297-8 6. PASCA, MARIA DORINA. Impreuna, fara...discriminare. . Targu Mures : University Press, 2018, 114. ISBN 978-973-169-522-8 7. Educational software with the UVVG support: UpToDate, Osmosys, ClinicalKey		
9.2. Seminar / Laboratory	Teaching methods	Comments
Bibliography:		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

Knowledge and skills are established as teaching objectives and specified as such in syllabi reviewed annually. There is correspondence between the content and the expectations of the academic community, community representatives, professional associations and employers. As a primary goal, the subject aims to provide students with optimal premises in the perspective of successful employment (immediately after graduation), in Romania and in other EU countries.

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	The evaluation consists of writing reports / essays on the non-discrimination of vulnerable groups, with their own opinions and proof of knowledge and understanding of the concepts presented in the course	Presentation of the report in the form of ppt.	100 %
11.5. Seminar/ laboratory			
11.6. Minimum performance standard	Passing with a minimum grade of 5		

Date of completion

22 Sept. 2025

Signature of the course holder
Lecturer Moț Maria Daniela MD PhD

Signature of seminar holder

**Signature of the Head of
Department**

Date of department endorsement

25 Sept. 2025

SUBJECT DESCRIPTION

CARDIAC AND VASCULAR SURGERY

1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Cardiac and vascular surgery						
2.2. Holder of the course activities	Prof. Galajda Zoltan PhD						
2.3. Holder of the seminar activities	-						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	C	2.7. Subject regime	DS Optional

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	2	3.3. Seminar / laboratory	-
3.4. Total hours in the curriculum	28	3.5. out of which course	28	3.6. Seminar / laboratory	-
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					4
Additional documentation in the library, on the digital specialised platforms and on site					6
Preparing seminars/ laboratories, topics, reports, portfolios and essays					6
Mentoring					2
Examinations					2
Other activities: Open day					2
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	Knowledge of the anatomy of the heart and circulatory system; knowledge of the organogenesis of the heart, atrial and ventricular septation. Physiology of blood clotting and anticoagulation with heparin and dicumarinic compounds.
4.2. Competencies-related	

5. Requirements (where applicable)

5.1. for developing the course	Physical courses in the subject. Online courses in the operating room with the presentation of the equipment provided. Presentation of the different stages of open heart surgery online. Presentation of demo valve prostheses in the classroom
5.2. for developing the seminar/ laboratory	-

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student describes, explains and analyzes the general principles of surgeries	The student correctly uses and integrates clinical and paraclinical assessment methods and techniques	The student plans general surgical activities, in compliance with occupational health and safety standards, collaborating interdisciplinary
2	The student describes, explains and analyzes the perioperative care techniques, correlated with the type of surgical pathology	They hone their practical skills, under appropriate supervision, by assessing and managing perioperative care and treatments.	The student supports the evaluation activities and management of perioperative care and treatments, in compliance with occupational health and safety standards, collaborating interdisciplinary Actively participates, under proper

¹ The learning results must be selected from among the three groups.

			supervision, in surgeries
3	The student recognizes, identifies, describes and summarizes the methods of the process of qualified care in the field of cardiac and vascular surgery	The student demonstrates the ability to correctly interpret and apply the practical skills necessary to participate, within the medical team, in the care of patients with medical and surgical conditions	The student adequately manages the care process with assuming responsibility for the planning, organization, evaluation and delivery of medical services

7. Accumulated specific competencies

Professional competencies	Knowledge of the principles of extracorporeal circulation and construction of the heart-lung apparatus. Drug suppression of coagulation. Suppression of anticoagulation, antidote. Examination of the patient with pre- and postoperative cardiac pathology, preoperative clinical and paraclinical investigations, protocol for preparing a patient for open heart surgery, accumulation of specific general knowledge regarding the peculiarities of patient care in the cardiac surgery clinic, understanding the operative indications in cardiovascular pathology and recognizing cardiovascular surgical emergencies (signs, symptoms, positive diagnosis, differential diagnosis, conduct). Interventional procedures in cardiovascular pathology. The basics of interventional procedures, the Seldinger technique. The competencies focus on valvular cardiac surgical pathology, large vessel pathology, surgical treatment in ischemic heart disease, acute arterial vascular surgical pathology, chronic arterial vascular pathology and venous vascular surgical pathology. Pre- and postoperative clinical evaluation specific to cardiac surgery. Positive and differential diagnosis in ischemic, valvular and congenital cardiac pathology operative indications. Understanding and applying surgical indications according to international guidelines. Recognition and management in cardiovascular surgical emergencies. Coronary artery bypass, prosthesis/valve -plasty, surgery for congenital heart disease, interventions on the aorta. Management of CEC, ECMO and ventricular assist devices. Interpretation of non-invasive and invasive investigations: ultrasound, coronary angiography, cardiac catheterization. Peculiarities of patient care in the cardiac surgery clinic, cardiac ICU. Clinical and paraclinical evaluation in arterial, venous and lymphatic pathology acute and chronic ischemia. Diagnosis and surgical treatment of acute and chronic ischemia of the limbs. Aortofemoral bypass, femoropopliteal bypass, carotid endarterectomy, patch angioplasty Percutaneous procedures: angioplasty, stenting, EVAR, TEVAR for aortic aneurysms. Treatment of varicose veins, endovascular procedures in phlebology, venous insufficiency, pulmonary thromboembolism.
Transversal competencies	The ability to analyse and synthesize, teamwork, medical ethics and approach to the hospitalized patient. Professional ethics in cardiac surgery, malpractice and forensic elements are a distinct component of training. The ability to integrate complex clinical information and make reasoned therapeutic decisions. Collaboration in multidisciplinary teams: Heart Team, surgeons, cardiologists, ICU, interventional radiologists. Compliance with deontological principles, informed consent, management of difficult situations. Empathetic approach to the hospitalized patient, correct information of the family. Updating knowledge through guides, clinical trials, participation in congresses and trainings. Use of evidence-based medicine, interpretation of literature, participation in research. Resource management, organization of section activity, operator risk assessment. Taking clinical responsibility, complying with institutional standards and protocols. Digital skills - Assessment of data, information and digital content; Collaboration through digital technologies Entrepreneurial skills - Identifying the needs and challenges that need to be met; Visualize future scenarios to help guide efforts and actions

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the	Theoretical and practical presentation of cardiovascular pathology with surgical
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subject	indication in order to acquire information on aetiology, pathophysiology, diagnosis, therapeutic possibilities, operative indication, stages of surgery, postoperative care and follow-up, as well as the student's appropriation of the particularities of anamnesis, clinical, paraclinical and imaging examinations in cardiac surgery depending on the type of condition. Acquisition of information regarding the aetiology, pathophysiology, diagnosis, therapeutic possibilities, surgical indication, stages of surgery, care and postoperative follow-up of the patient with cardiovascular diseases with surgical indication. Formation of the capacity of anamnesis, clinical, paraclinical examination and imaging in cardiac and vascular surgery, depending on the type of condition and the clinical context.
8.2. Specific objectives	Knowledge of the organization of the cardiovascular surgery department; Evaluation of the patient with cardiovascular pathology with surgical indication; Recognition and management in cardiovascular emergencies; Orientation of the patient with cardiovascular diseases; Modern therapeutic approaches in cardiovascular surgery (hybrid and minimally invasive); Acquiring the basics of vascular pathology and obtaining the ability to care for patients with such conditions; Knowledge of the patients' circuit, the structure of the surgical team, the operating room and specific devices (CEC machine, valve prostheses, ECMO devices); Training of the capacity for clinical and paraclinical evaluation of the patient with cardiovascular pathology with surgical indication, pre- and postoperatively; Identifying the signs and symptoms of cardiovascular surgical emergencies and establishing prompt and appropriate therapeutic conduct; Orientation of the patient with cardiovascular diseases; The ability to direct the patient to the appropriate service and specialist, following current therapeutic guidelines; Knowledge of hybrid and minimally invasive techniques in cardiovascular surgery: TAVI, minimally invasive bypass, endoscopic cardiac surgery and endovascular procedures; Knowledge of the aetiology, pathophysiology and diagnosis of arterial, venous and lymphatic diseases with surgical indication; Obtaining the ability to care for patients with peripheral vascular diseases: chronic and acute ischemia, aneurysms, venous pathology, vascular access; Understanding the principles of artery bypass grafting interventions, venous surgical treatment and modern endovascular procedures. Use of vascular Doppler ultrasound, CT angiography, arteriography and other explorations for diagnosis and therapeutic planning in vascular pathology.

9. Contents

9.1. Course	Teaching methods	Comments
Introduction and Fundamentals - History of Cardiac and Vascular Surgery - Introduction to Cardiovascular Surgery: Profession, Objectives, Performance, Skills, Professionalism, Standards and Perspectives - Myocardial cell physiology, electrophysiology, physiology of congestive heart failure	Interactive lecture with interactive whiteboard design	2 hours
Principles of cardiopulmonary bypass - CEC circuits, components of the heart-lung apparatus - Complete suppression of coagulation by Heparin, antidote - Heparin Dose Calculation for CEC - CEC complications	Online course from the open heart surgery room	2 hours
Total circulatory arrest - Thermal conditions of circulatory arrest - Monitoring of circulatory arrest - Cerebral anterograde perfusion in the circulatory arrest - Retrograde cerebral perfusion in circulatory arrest - Drug brain protection in circulatory arrest	Interactive lecture with interactive whiteboard design	2 hours
Minimally invasive procedures in cardiac surgery - Intercostal approaches - Transsternal approaches - Endoscopic approaches	Online course from the open heart surgery room	2 hours
Ischemic heart disease - Heart vascularization – aetiology, pathophysiology, positive and	Interactive lecture with interactive	2 hours

differential diagnosis, therapeutic indications according to guidelines - Coronary artery bypass: principle of intervention, extracorporeal circulation, types of grafts (advantages and disadvantages), surgical technique, postoperative care. - Modern approaches: minimally invasive bypass and heartbeat bypass	whiteboard design	
Arterial and venous grafts in heart revascularization - Collecting, harvesting with minimal invasiveness. - Principles of use - The ideal arterial graft	Interactive lecture with interactive whiteboard design	2 hours
Acute coronary syndrome - STEMI and non-STEMI myocardial infarction, therapeutic approaches - Organization and functioning of STEMI Heart Attack Permanence Centres	Interactive lecture with interactive whiteboard design	2 hours
Cardiac buffering - Aetiology, clinical forms - Indications for guided pericardial puncture in cardiac tamponade - Indications of pericardiocentesis - Laboratory and cytological investigations, differential diagnosis in cardiac tamponade - Iatrogenic cardiac buffering, therapeutic conduct	Interactive lecture with interactive whiteboard design	2 hours
Cardiovascular surgical management of the malignant tumour patient - Off pump versus CEC - Malignant Cardiac Tumour - benign cardiac tumours, - Vascular tumours with cardiac intracavitary penetration	Interactive lecture with interactive whiteboard design	2 hours
Valvopathies. - Anatomy of heart valves, aetiology, pathophysiology, positive and differential diagnosis, therapeutic indications according to the guidelines for each valvopathy. - Types of valve prostheses (advantages, disadvantages, indications, specific care), valve prosthesis technique, valve plasty technique. - Modern approaches: transcatheter valve prosthesis	Interactive lecture with interactive whiteboard design	2 hours
Congenital heart disease. - Heart development, classification of congenital heart diseases, intrafoetal diagnosis - Therapeutic principles and methods; aetiology, pathophysiology, positive and differential diagnosis, methods of surgical and interventional treatment for the main cyanogenic and non-cyanogenic congenital heart diseases	Interactive lecture with interactive whiteboard design	2 hours
Pathology of the aorta and large vessels. - Pathology of large vessels. - Aortic dissection (type A and type B) – diagnosis and surgical treatment - Thoracic and thoracoabdominal aortic aneurysms	Interactive lecture with interactive whiteboard design	2 hours
Heart and heart-lung transplantation - Compatibility - Surgical technique - Immunosuppression of the transplant patient - Posttransplant cardiac biopsy	Interactive lecture with interactive whiteboard design	2 hours
Techniques and long-lasting circulatory support - ECMO – indications and clinical use, arterio-venous, veno-venous - Ventricular Assist Devices (VADs) - Therapeutic management in the circulatory-assisted patient	Interactive lecture with interactive whiteboard design	2 hours
Bibliography: Galajda, Z.: Ghid Practic de Anatomie Clinică Chirurgicală Cardiovasculară, Goldis University Press, Arad, s.d. p., 2016. ISBN: 9789736648304 Kirklin, J. K., Schaff, H. V., Blackstone, E. H., Tchervenkov, C. I., & Pagani, F. D. (Eds.). (2025). Kirklin/Barratt-Boyes Cardiac Surgery (5th ed.). Elsevier. ISBN: 9780323883047. Rutherford's Vascular Surgery and Endovascular Therapy, 2022 Bruneval Patrick, Urgences chirurgicales, Elsevier Masson, 2021, 978-2-294-77568-3 Educational software with the support of UVVG: UpToDate, Osmosys, ClinicalKey		
9.2. Seminar / Laboratory	Teaching methods	Comments
Bibliography:		

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

The subject description is developed on the basis of nationally and internationally recognized textbooks in the field. Knowledge and skills are established as teaching objectives and specified as such in analytical programs reviewed annually. Throughout this process, the correspondence between the content and the expectations of the academic community, community representatives, professional associations and employees is systematically evaluated, as directly as possible.

Knowledge of the notions of cardiac and vascular surgery allows graduates to enter the labour market more easily

11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course	- Surgical pathology of the heart (valvopathies, ischemic heart disease, congenital malformations) - Surgery of the aorta and large vessels - Peripheral arterial pathology (atherosclerosis obliterans, aneurysms) - Venous pathology (varicose veins, thrombophlebitis, post thrombotic syndrome) - Extracorporeal circulation - Operative indications and basic surgical techniques - Postoperative complications and postoperative care	Written editorial exam Semester test - written	70% 30%
11.5. Seminar/ laboratory			
11.6. Minimum performance standard	- Knows the surgical indications in valvopathies (aortic stenosis/insufficiency, mitral insufficiency) - Describes the principles of coronary artery bypass (CABG) - Understand the principles of cardiopulmonary bypass and myocardial protection - Know congenital heart malformations with surgical indication - Recognizes major postoperative complications (low cardiac output syndrome, tamponade, arrhythmias, bleeding) - Know the diagnosis and treatment of aortic aneurysms (abdominal and thoracic) - Describes the indications and techniques of revascularization in chronic ischemia of the lower limbs - Know the surgical treatment of carotid pathology (endarterectomy) - Describes the surgical management of deep vein thrombosis and varicose veins - Know the principles of endovascular surgery (stenting, EVAR)		

Date of completion

19.09.2025

Signature of the course holder

Prof. Galajda Zoltan PhD

Signature of seminar holder

Date of department endorsement

25.09.2025

Signature of the Head of Department

Assoc. prof. Turcuş Violeta PhD

SUBJECT DESCRIPTION ROMANIAN

1.1. Data on the program

1.1. Higher education institution	"Vasile Goldiș" Western University of Arad
1.2. Faculty	Medicine
1.3. Department	Biology and Life Sciences
1.4. Field of studies	Health
1.5. Studies degree	Bachelor's
1.6. Study program	Medicine in English

2. Data on the subject

2.1. Subject title	Romanian						
2.2. Holder of the course activities							
2.3. Holder of the seminar activities	Assoc. prof. Dima Laza Stăncuța PhD						
2.4. Year of studies	III	2.5. Semester	I	2.6. Type of assessment	C	2.7. Subject regime	DC

3. Total estimated duration (hours per semester of didactic activities)

3.1. Number of hours per week	2	3.2. out of which course	-	3.3. Seminar / laboratory	2
3.4. Total hours in the curriculum	28	3.5. out of which course	-	3.6. Seminar / laboratory	28
Distribution of time					hours
Study by the textbook, lecture notes, references and notes					4
Additional documentation in the library, on the digital specialised platforms and on site					6
Preparing seminars/ laboratories, topics, reports, portfolios and essays					6
Mentoring					2
Examinations					4
Other activities:					
3.7. Total hours of individual study	22				
3.8. Total hours per semester	50				
3.9. Number of credit units	2				

4. Pre-requirements (where applicable)

4.1. Curriculum-related	-
4.2. Competencies-related	Language competences – According to the Common European Framework of Reference Level B1-B2: - to understand the main ideas from simple texts on concrete or abstract topics; - to hold specialized discussions in their own field of activity; - to communicate with a certain degree of spontaneity and fluency; - express themselves clearly and in detail on a wide range of topics, can express their opinion on a topical topic, presenting the advantages and disadvantages of different possibilities

5. Requirements (where applicable)

5.1. for developing the course	-
5.2. for developing the seminar/ laboratory	classroom with video projector, interactive whiteboard, audio/video equipment, university Moodle course platform, Digibook apps

6. Learning results (minimum 4 – maximum 8)¹:

No.	Knowledge	Skills	Responsibility and autonomy
1	Students understand the complex structure of Romanian verbal morphology, including the causal, passive, and modal forms of verbs.	Students can understand and interpret complex texts from various fields, demonstrating the ability to extract essential information and use context to infer meanings.	Students have the ability to take responsibility for their own Romanian language learning process, planning and respecting the deadlines set for homework and projects.
2	Students identify and explain the syntactic peculiarities of the sentence in Romanian, including subordinate clauses of different	Students can communicate orally and in writing in Romanian with grammatical and lexical accuracy, adapting their speech according to	Students develop autonomy in the use of linguistic and technological resources, selecting and applying effective methods to improve

¹ The learning results must be selected from among the three groups.

	types.	formal and informal situations.	communication skills in Romanian.
3	Students recognize the linguistic influences of foreign languages on contemporary Romanian and analyse the phenomenon of linguistic interference.	Students develop advanced syntactic and semantic analysis skills of sentences and texts in Romanian, including the correct understanding and use of complex grammatical structures.	Students understand and respect the social and cultural norms specific to the Romanian academic environment, showing a responsible behaviour in their relationships with colleagues and professors.
4	Students interpret and analyse literary and non-literary texts in Romanian, highlighting specific cultural and stylistic elements.	Students can apply effective learning and self-assessment strategies in the process of deepening language skills, demonstrating autonomy and responsibility in the study of the Romanian language.	Students are able to critically evaluate their own language performance and identify directions for progress, developing autonomous strategies for overcoming difficulties in learning Romanian.

7. Accumulated specific competencies

Professional competencies	Transfer of learned concepts/principles/methods into guided activities for the reception and production of the written text. Presentation and development of ideas, text structure, strategies for developing specialized vocabulary, Effective verbal communication, building argumentation to the specific standards of the Romanian language used for study and communication in the academic environment, Application of plagiarism avoidance techniques (citation, abstract, paraphrasing). Organizing debates, conducting individual and group projects on topics in the field of specialization. Critical reception and production of oral or written messages specific to scientific communication at university level Using sources of information with discernment and scientific probity. Elaboration of original written papers and oral presentations in Romanian that use the principles and techniques of writing established in the academic environment.
Transversal competencies	Conducting individual work tasks based on writing patterns and with the assistance of the teacher, materialized in an individual portfolio. Use of the components of the field of academic study in Romanian in full accordance with professional ethics. Participation in the realization of work projects in pairs and in teams, with emphasis on familiarization with the roles within the work team in the academic environment.

8. Subject objectives (resulting from the grid of the accumulated specific competencies)

8.1. General objective of the subject	Acquisition of the skills to receive written and oral texts in Romanian for the minimum level B1-B2, defined according to the Common European Framework of Reference for Languages, by foreign citizens who wish to enrol in study programs in Romanian in university or postgraduate education in Romania. In-depth knowledge and understanding of contexts and roles, as well as concepts, methods and specific discourse/language in various communication situations with a focus on: - the rhetorical situation, - on the forms of written and oral communication, - on the stages of the writing process and - on the products of academic writing, as well as - on professional ethics. Use in-depth knowledge for the explanation and interpretation of the various ways of written communication (genres of scientific texts) and oral communication (scientific communications) and of the conventions governing the writing of scientific texts in English in the context of undergraduate studies and the extended professional community (national and international).
8.2. Specific objectives	Conducting individual work tasks in contexts of autonomy/independence. Participation in the realization of work projects in pairs and in teams, with emphasis on assuming roles within the work team Management of own learning, diagnosis of training needs, monitoring and reflection on the effective use of intellectual work tools and traditional learning resources/techniques/strategies and ICT.

9. Contents

9.1. Course			Teaching methods	Comments
9.2. Seminar / Laboratory			Teaching methods	Comments
1. Leisure and health. Leisure activities, passions, daily schedule.			interactive lecture, heuristic conversation, didactic demonstration, slideshow, communicative approach, role-playing	2 hours
2. Adverbs and degrees of comparison.				2 hours
3. Self-presentation (information regarding age, address, profession); time expression (time and time limits), objects in the classroom				2 hours
4. Pleonasm. Nuance of expression: avoiding redundancies. Synonymy. Antonymy. Indicative module.				2 hours
5. Notions regarding clothing and footwear and the health related to these clothing items.				2 hours
6. Adjectives with four, three, two endings, adjectives with a form, the realization of possession.				2 hours
7. Family and family relationships, physical and mental qualities.				2 hours
8. Degrees of comparison of the adjective, the adjective				2 hours
9. Demonstrative pronouns.				2 hours
10. Important Choices.				2 hours
11. Formulating a hypothesis. Uncertainty. Indecision.				2 hours
12. Debate-type communication: arguments and counterarguments. The expression of the desire, of the condition, the conditional-optional mode. Derivation with suffixes.				2 hours
13. A healthy life.				2 hours
14. Habits, routine, relaxation activities, diets.				2 hours
Bibliografie:				
1. Dima Laza Stăncuța – Seminar Support Romanian Language, 2025				
2. https://cursuri.uvvg.ro/course/view.php?id=28637				
3. Apostolatu, Ionel, Gheorghiu, Ioana, Freda, Alina, Limba română pentru studenții străini. Limbaj medical – Nivelul B2, Galați University Press, 2022				
4. Ursa, Anca, Mărcean, Nora, Limba română medicală. Româna pentru obiective specifice, Limes, Editura Risoprint, Cluj-Napoca, 2023				
5. Platon, Elena, Burlacu, Diana, Arieșan, Antonela, Manual de limba română ca limbă străină. Nivelul B2, Editura Presa Universitară, Clujeană, 2021				
Digital resources:				
http://www.vorbitiromaneste.ro/				
https://hufmed.ro/glosar-cu-termeni-medicali/				

10. Consistency of subject contents with the expectations of representatives of the epistemic community, professional associations, and of the emblematic employers in the field of the programme

- Using real case studies (where only the names of the institutions are changed), which familiarize students with real notions and concepts; - Conducting simulations of presentations, press conferences, work meetings, etc., which prepare students specifically for the work they will conduct in the future; - Drafting specific documents (letters of intent, CVs, minutes, etc.) according to the requirements of the labour market..
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11. Assessment

Type of activity	11.1. Criteria of evaluation	11.2. Methods of evaluation	11.3. Weight in the final grade
11.4. Course			
11.5. Seminar/ laboratory	Attendance and active participation in the seminar Fluency and accuracy of oral and written foreign language Relevance to the proposed tasks Proving the acquisition of vocabulary and grammar notions Completing work tasks	Evaluation along the way based on participation in seminar discussions. Written exam and/or oral examination in the final seminar(s)	30% 70%
11.6. Minimum performance standard	Commenting on oral images. Identifying medical terms in a text. Minimum requirements for grade 5, understanding and reproducing the basics of the subject matter studied		

Date of completion
19.09.2025

Signature of the course holder

Signature of seminar holder
Assoc. prof. Dima Laza Stăncuța PhD

Date of department endorsement
25.09.2025

Signature of the Head of Department
Assoc. prof. Turcus Violeta PhD