STATE UNIVERSITY
"UZHHOROD NATIONAL UNIVERSITY"
MEDICAL FACULTY 2
Department of Internal Medicine

"APPROVED"
Dean of the Medical Faculty 2
_____ Vasyl KALIY
"28" 05 2025

SYLLABUS
EC 11. INTERNAL MEDICINE PROFILE CLERKSHIP

Educational level	**Second (Master)**
Subject area	**22 "Health"/ I "Health and Social Welfare"**
Specialty	**222 "Medicine" / I2 "Medicine"**
Educational program	**"General Medicine"**
Discipline status	**Compulsory**
The language of instruction	**English**

Uzhhorod 2025

"Internal Medicine Profile Clerkship" syllabus for higher education seekers of the subject area 22 "Health" / I "Health and Social Welfare", specialty 222 "Medicine"/ I2 "Medicine", educational program "General medicine".

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The syllabus was discussed and approved at the meeting of the Department
of Internal Medicine
Minutes № _11_ of "_28_" __May_ 2025
Head of the Department _____ /Marianna TOVT-KORSHYNSKA/

Approved by the Scientific-Methodical Commission of the Medical Faculty 2
Minutes № _9_ of "*28*" May 2025
Head of the Scientific-Methodical Commission _____ /Nataliia MALETS/

1. DESCRIPTION OF THE EDUCATIONAL SUBJECT

<table>
<tr><td rowspan="2">Name of indicators</td><td colspan="2">Distribution of academic hours according to the curriculum</td></tr>
<tr><td>Full-time study</td><td>Extramural form of study</td></tr>
<tr><td>ECTS credits – 3</td><td colspan="2">Year of training:</td></tr>
<tr><td>Total number of hours – 90</td><td>6</td><td>-</td></tr>
<tr><td>Number of modules – 1</td><td colspan="2">Semester:</td></tr>
<tr><td rowspan="5">Weekly academic hours
for full-time study:

class-room academic hours -
individual work hours - 0,5
student's self-study hours - 1</td><td>12</td><td>-</td></tr>
<tr><td colspan="2">Lectures:</td></tr>
<tr><td>-</td><td>-</td></tr>
<tr><td colspan="2">Practical classes (seminars):</td></tr>
<tr><td>-</td><td>-</td></tr>
<tr><td rowspan="5">Type of final control: (credit)</td><td colspan="2">Laboratory classes:</td></tr>
<tr><td>-</td><td>-</td></tr>
<tr><td colspan="2">Individual work</td></tr>
<tr><td>30</td><td>-</td></tr>
<tr><td rowspan="2">Form of final control: (complex)</td><td colspan="2">Self-study:</td></tr>
<tr><td>60 hours</td><td>-</td></tr>
</table>

1. DESCRIPTION OF THE COURSE

The purpose of studying the discipline **"Internal Medicine Profile Clerkship"** is to consolidate the knowledge gained during the clinical disciplines study in practical skills improvement regarding the management of patients in inpatient departments: patient examination, acquire new skills in clinical and instrumental diagnostic methods evaluation and performance for different internal diseases, assessment of the patient status and effect of past treatment if it was provided, make a conclusion about the preliminary diagnosis and develop the plan of investigations and treatment, including the treatment effects monitoring, disability degree evaluation according to the rules of Health Care organization and apply those skills after practice.

According to the educational program, the study of the discipline contributes to the formation of the following competencies in higher education seekers:

General Compences (GC):

GC 1. Ability to abstract thinking, analysis and synthesis.
GC 2. The ability to learn and master modern knowledge.
GC 3. Ability to apply knowledge in practical situations.
GC 4. Knowledge and understanding of the subject field and understanding of professional activity.
GC 5. Ability to adapt and act in a new situation.
GC 6. Ability to make informed decisions.
GC 7. Ability to work in a team.
GC 8. Ability to interpersonal interaction.
GC 11. Ability to search, process and analyze information from various sources.
GC 12. Determination and persistence in relation to assigned tasks and assumed responsibilities.
GC 15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, to use various types and forms of motor activities for active recreation and leading a healthy lifestyle.

Professional Competences (PC):

PC 1. Ability to collect medical information about the patient and analyze clinical data.
PC 2. Ability to determine the necessary list of laboratory and instrumental diagnostic methods and evaluate their results.
PC 3. The ability to establish a preliminary and clinical diagnosis of the disease.
PC 4. The ability to determine the necessary regimen of work and rest in the treatment and prevention of diseases.
PC 5. The ability to determine the nature of nutrition in the treatment and prevention of diseases.
PC 6. Ability to determine the principles and nature of treatment and prevention of diseases.
PC 7. Ability to diagnose emergency conditions.
PC 8. Ability to determine tactics and provide emergency medical care.
PC 9. Ability to carry out medical evacuation measures.
PC 10. Ability to perform medical manipulations.
PC 11. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.

PC 12. The ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning counseling skills and contraceptive method selection.

PC 15. Ability to carry out an examination of work capacity.

PC 16. Ability to maintain medical documentation, including electronic forms.

PC 21. Clearly and unambiguously communicate one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to students.

PC 22. Ability to manage healthcare workflows that are complex, unpredictable and require new strategic approaches.

PC 24. Compliance with ethical principles when working with patients and laboratory animals.

PC 25. Maintainance of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.

3. PREREQUISITES FOR STUDYING THE EDUCATIONAL SUBJECT

"Internal Medicine Profile Clerkship"are mastering the following educational subjects (ES) of the educational program (EP):

ES 6 Medical Biology

ES 7 Medical and biological physics

ES 8 Medical chemistry

ES 9 Bioorganic chemistry,

ES 12 Physiology

ES 16 Patient care (practice)

ES 21 Pathophysiology

ES 22 Pharmacology

ES 23 Propaedeutics of Internal Medicine

ES 26 Medical Psychology

ES 27 Nursing Practice

ES 28 Radiology

ES 29 Internal Medicine, including endocrinology, medical genetics

ES 36 Neurology

ES 39 Psychiatry, narcology

ES 42 Clerkship

ES 43 Internal medicine II, including clinical pharmacology, clinical immunology and allergology, occupational diseases

ES 49 Anesthesiology and intensive care

EC 53 Clerkship 2

4. EXPECTED LEARNING OUTCOMES

According to the educational program "General Medicine", the study of the educational subjects should ensure the achievement of the following program learning outcomes (PLO) by higher education seekers**:**

Program learning outcomes	PLO code
Obtain fundamental knowledge of the professional activity structure. To be able to carry out professional activities that require knowledge updating and integration. To be responsible for professional development, the ability for further professional training with a high level of autonomy.	PLO 1
To understand and possess a decent knowledge of fundamental and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.	PLO 2
Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).	PLO 4
Collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the age of the patient.	PLO 5
To establish a final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of the managing physician in the conditions of the health care institution (according to the list 2).	PLO 6
Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).	PLO 7
Determine the main clinical syndrome or what causes the severity of the victim/victim's condition (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a healthcare facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.	PLO 8
Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the age of the patient, in the conditions of the health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to justify personalized recommendations under the control of the head physician in the conditions of a medical institution.	PLO 9
Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.	PLO 10
Determine the approach, plan and tactics of managing physiological pregnancy, physiological childbirth and the postpartum period by making a reasoned decision according to existing algorithms and standard schemes.	PLO 11

ess the general condition of a newborn child by making a reasoned decision according to existing algorithms and standard schemes, observing the relevant ethical and legal norms.	PLO 12
Assess and monitor the child's development, provide recommendations on feeding and specifics of nutrition depending on age, organize preventive vaccinations according to the calendar.	PLO 13
To perform medical manipulations (according to the list 5) within a medical facility, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, upholding relevant ethical and legal standards.	PLO 17
To determine the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.	PLO 18

List 1 (syndromes and symptoms)

1.
anemic syndrome
2. anuria and oliguria
3. arterial hypertension
4. arterial hypotension
5. chest pain
6. abdominal pain
7. pain in the limbs and back
8. sore throat
9. vomiting
10. broncho-obstructive syndrome
11. bulbar syndrome
12. effusion in the pleural cavity
13. hallucinatory-paranoid syndrome
14. fever
15. hemorrhagic syndrome
16. hypoglycemia
17. hyperglycemia
18. exanthema, enanthema
19. hepatomegaly and hepatolienal syndrome
20. headache
21. dysuria
22. dyspepsia
23. dysphagia
23. diarrhea
24. jaundice
25. Shortness of breath
26. asphyxia
27. fasten
28. dizziness
30.cardiomegaly
31. cough
32. intestinal obstruction
33. coma
34. external bleeding
35. internal bleeding
36. hemoptysis
37. lymphadenopathy
38. meningeal syndrome
39. uterine bleeding
40. edematous syndrome
41. obesity (+ body weight)
42. paresis, paralysis
43. pneumothorax tense (closed)
44. pneumothorax relaxed (open)
45. valvular pneumothorax
46. polyuria
47. portal hypertension
48. speech disorder (aphasia)
49. heart rhythm and conduction disturbances
50. sudden cardiac arrest
51. disorders of consciousness
52. itchy skin
53. urinary syndrome
54. dementia syndrome
55. dehydration syndrome
56. indigestion syndrome
57. thirst
58. stridor
59. joint syndrome
60. convulsions
61. weight loss
62. cyanosis

63. gastrointestinal bleeding

List 2 (diseases)

Diseases of the cardiovascular system:
1. aortic aneurysms
2. atherosclerosis
3. varicose veins of the lower extremities
4. congenital heart defects
5. secondary arterial hypertension
6. acute occlusion of main and peripheral arteries;
7. endocarditis
8. essential and secondary arterial hypertension
9. ischemic heart disease
10. Cardites
11. cardiomyopathy
12. pulmonary heart
13. acquired heart defects
14. obliterating endarteritis
15. pericarditis
16. heart rhythm and conduction disturbances
17. heart failure
18. injuries of the heart and blood vessels
19. pulmonary embolism
20. phlebitis, thrombophlebitis

Diseases of respiratory organs and mediastinum:
21. asphyxia
22. bronchial asthma
23. bronchitis
24. bronchiectatic disease
25. bronchopulmonary dysplasia
26. congenital malformations of respiratory organs
27. acute respiratory distress syndrome
28. respiratory failure
29. infectious and destructive lung diseases
30. pulmonary insufficiency
31. mediastinitis
32. cystic fibrosis
33. lung and mediastinal neoplasms
34. pleurisy
35. pneumoconiosis
36. pneumonia
37. pneumothorax
38. respiratory distress syndrome and pneumonia of newborns
39. foreign body in the respiratory tract
40. chest injuries (superficial, open)
41. chronic obstructive pulmonary disease

Diseases of digestive organs:
42. prolapse of the rectum
43. ulcer disease
44. congenital malformations of digestive organs
45. gastroesophageal reflux disease, esophagitis
46. gastritis, duodenitis
47. acute and chronic hepatitis
48. acute intestinal obstruction
49. acute and chronic appendicitis
50. acute and chronic pancreatitis
51. benign diseases of the esophagus
52. enteritis, colitis
53. inflammatory diseases of the rectum and perianal region
54. pinched and unpinched abdominal hernias
55. neoplasms of the esophagus, stomach, colon, liver and pancreas
56. peptic ulcers of the stomach and duodenum
57. peritonitis
58. perforation of a hollow organ
59. liver failure
60. malabsorption syndrome
61. stenosis of the pylorus of the stomach
62. abdominal injuries (superficial, open)
63. functional gastrointestinal disorders
64. Diseases of the operated stomach
65. cholecystitis, cholangitis, gallstone disease, choledocholithiasis
66. cirrhosis of the liver
67. gastrointestinal bleeding

Diseases of the blood and hematopoietic organs, disorders involving the immune mechanism
68. anemia
69. hemolytic disease of newborns
70. hemophilia
71. leukemia
72. lymphomas
73. Congenital (Bruton's disease, Wiskott-Aldridge syndrome) and acquired immunodeficiency states
74. sepsis of newborns
75. surgical sepsis
76. idiopathic thrombocytopenic purpura
77. chronic radiation damage

Mental and behavioral disorders:
78. bipolar affective disorder
79. acute psychosis, including alcoholic delirium
80. epilepsy
81. neurotic disorders
82. personality disorders

83. schizophrenia

Diseases of the nervous system

84. intracranial injury
85. meningitis, encephalitis
86. migraine and other types of headache
87. perinatal encephalopathy
88. Violation of the autonomic nervous system
89. violation of cerebral circulation
90. Vertebrogenic diseases of the nervous system, neuropathy and polyneuropathy
91. multiple sclerosis
92. chronic occupational injuries (vibration disease, occupational dyskinesias)
93. strokes (ischemic, hemorrhagic)

Diseases of the throat, ears, nose

101. laryngitis
102. swell up
103. peritonsillar abscess
104. sinusitis
105. tonsillitis
106. injuries of the throat, ear, nose

Diseases of the genitourinary system:

107. amyloidosis of the kidneys
108.congenital malformations of the urinary system
109. glomerulonephritis
110. dysmetabolic nephropathies
111. nephrotic syndrome
112. neoplasms of the kidney, urinary tract and prostate gland
113. pyelonephritis
114. urolithiasis
115. tubulointerstitial nephritis
116. chronic kidney disease
117. cystitis

Diseases of the skin and subcutaneous tissue:

118. allergic dermatoses (dermatitis, toxidermia, eczema)
119. bacterial diseases of the skin and subcutaneous tissue, pyoderma
120. purulent-inflammatory diseases of fingers and hands
121. purulent-inflammatory diseases in children and newborns
122. mycoses
123. burns and frostbite
124. parasitic skin diseases (scabies, lice)
125. psoriasis
126. bullous dermatoses
127. specific surgical infection (anaerobic clostridial and non-clostridial)

Diseases of the musculoskeletal system and connective tissue:

130. ankylosing spondyloarthritis
131. congenital and acquired malformations of the musculoskeletal system
132. acute rheumatic fever
133. dermatomyositis and polymyositis
134. Neoplasm of the musculoskeletal system
135. osteoarthritis
136. osteomyelitis
137. gout
138. polytrauma
139. reactive arthritis
140. rheumatoid arthritis
141. systemic scleroderma
142. systemic lupus erythematosus
143. systemic vasculitis (polyarteritis nodosa, hemorrhagic vasculitis, hypersensitivity vasculitis)
144. typical fractures of the bones of the shoulder, forearm, hand, hip, leg, foot
145. pelvis injury
146. spine injury
147. damage to large joints (hip, knee, ankle-foot, elbow)
148. chronic rheumatic disease
149. juvenile rheumatoid arthritis

Diseases of the endocrine system, nutritional disorders and metabolic disorders:

150. acromegaly and pituitary gigantism
151. hypothyroidism
152. hypotrophy, protein-energy deficiency
153. hypopituitarism
154. thyrotoxicosis
155. endemic goiter
156. diabetes insipidus
157. nodular goiter, tumors of the thyroid gland
158. obesity
159. congenital dysfunction of the cortex of the adrenal glands
160. violation of calcium-phosphorus metabolism, vitamin D metabolism
161. genetic syndromes with endocrine complications: Turner syndrome, Russell-Silver, Prader-Willi, Laron syndrome, etc.)
162. thyroiditis
163. Cushing's disease and syndrome
164. chronic adrenal insufficiency
165. diabetes
166. hypoparathyroidism
167. hyperparathyroidism
168. tumors of the adrenal glands
169. organic (including congenital) hyperinsulinism
170. neuro-endocrine tumors
171. tumors of the pituitary gland
172. premature sexual development
173. hypogonadism

174. cryptorchidism
175. violation of gender differentiation
176. Klinefelter's syndrome
177. dwarfism in a child born SGA

Infectious and parasitic diseases:

178. bacterial food poisoning
179. rabies
180. botulism
181. viral hepatitis
182. chicken pox
183. congenital infections of the newborn
184. helminth infections
185. herpesvirus diseases
186. influenza and other acute respiratory viral infections
187. diphtheria
188. infectious mononucleosis
189. candidiasis
190. whooping cough
191. intestinal bacterial infections
192. intestinal viral infections
193. measles
194. tick-borne viral encephalitis
195. rubella
196. leptospirosis
197. malaria
198. meningococcal infection
199. especially dangerous viral infections
200. mumps infection
201. poliomyelitis
202. tetanus
203. protozoan infections
204. rickettsiosis
205. anthrax
206. rabies
207. scarlet fever
208. tuberculosis of different localization
209. Lyme disease
210. disease caused by human immunodeficiency virus (HIV)
211. chlamydial infections
212. cholera
213. plague

- infectious diseases transmitted mainly sexually:

214. gonococcal infection
215. syphilis

List 3 (emergency conditions)

1. asphyxia (including neonatal)
2. hypertensive crisis
3. hypoglycemia (coma)
4. acute respiratory failure
5. acute urinary retention
6. acute adrenal insufficiency
7. acute kidney damage
8. acute liver failure
9. acute heart failure
10. acute poisoning, including combat poisonous substances
11. acute psychosis
12. acute coronary syndrome
13. acute radiation and chemical damage, including in field conditions and emergency situations
14. acute cerebral insufficiency
15. diabetic coma, including ketoacidotic, hyperosmolar, lactacidemic
16. electric shock
17. status epilepticus
18. acute bleeding
19. syndrome of acute blood loss, including in field conditions and emergency situations
20. sudden cardiac arrest
21. collapse
22. loss of consciousness and comatose states
23. renal colic
24. biliary colic
25. acute anaphylactic reactions
26. acute heart rhythm disturbances,
27. cold injury, including in field conditions
28. thermal injury, including in field conditions
29. venous and arterial thromboembolism
30. convulsive syndrome
31. Tuedrinking
32. strangulation asphyxia
33. normal childbirth
34. shocks
35. bites of snakes, insects, animals
36. penetrating wounds, including during hostilities
37. burns, including in field conditions
38. foreign bodies of the respiratory tract, gastrointestinal tract, ENT organs and the eye

List 4 (laboratory and instrumental studies)

1. pleural fluid analysis
2. analysis of ascitic fluid
3. analysis of synovial fluid
4. urine analysis according to Zimnytskyi
5. urine analysis according to Nechiporenko
6. alpha-amylase activity in blood and urine, fecal elastase 1
7. blood proteins and their fractions, C-reactive protein
8. blood glucose, glycosylated hemoglobin,
9. oral glucose tolerance test
10. blood lipids and lipoproteins and their fractions
11. blood hormones
12. serum ferritin, iron and copper
13. creatinine, blood and urine urea, glomerular filtration rate
14. blood electrolytes
15. blood aminotransferases
16. total blood bilirubin and its fractions
17. coagulogram
18. blood uric acid
19. blood alkaline phosphatase
20. histomorphological study of lymph node biopsy
21. histomorphological study of a biopsy of parenchymal organs
22. histomorphological study of biopsy of mucous membranes
23. histomorphological study of muscle and skin biopsy
24. histomorphological examination of the placenta
25. pulmonary function testing
27. standard ECG (in 12 leads)
28. bronchoscopy
29. esophagogastroduodenoscopy, colonoscopy
30. echocardiography and doppler
31. fecal microscopy
32. complete blood count
33. urinanalysis
34. glucose and acetone in urine
35. general analysis of cerebrospinal fluid
36. general analysis of sternal puncture
37. sputum testing
38. general immunological blood profile
39. serological reactions in infectious diseases
40. express tests for viral diseases
41. amplification methods for infectious diseases (PCR, LLR)
42. serological reactions in autoimmune diseases
43. microbiological investigations of biological fluids and secretions
45. measurement of radiation (sound, vibration, ionizing), individual radiometry.
46. methods of instrumental visualization of the thyroid gland
47. X-ray contrast angiography
48. methods of instrumental visualization of abdominal organs
49. methods of instrumental visualization of chest cavity organs
50. methods of instrumental visualization of the genitourinary system
51. methods of instrumental visualization of the skull, spine, spinal cord, bones and joints
53. tuberculin skin testing
55. stomach and esophagus pH-metry and bile investigation
56. measurement of ergonomic indicators of difficulty and intensity of work.

List 5 (medical manipulations)

1. Cardiopulmonary resuscitation
2. defibrillation
3. register a standard 12-lead ECG
4. to temporarily stop external bleeding
5. apply hemostatic tourniquets and use hemostatic agents, including in field conditions
6. install a nasogastric and orogastric tube
7. administer drugs (intravenous infusion and drip, intraosseous), incl. in field conditions
8. peripheral venous access
9. blood pressure measurement
10. to restore the patency of the respiratory tract
11. bladder catheterization with a soft probe
12. choracentesis
13. perform a puncture of the abdominal cavity through the posterior vault
14. determine blood groups, Rhesus factor
15. blood components and blood substitutes transfusion

Expected learning outcomes (ELO) that should be achieved by students after mastering the discipline **"Internal Medicine Profile Clerkship"**:

ELO code	Expected learning outcomes of the discipline	PLO code
ELO 1	The ability to carry out professional activities that require updating and integration of knowledge regarding inpatient management of patients with internal diseases. Carry out professional development and further professional training with a high level of autonomy.	PLO 1
ELO 2	The ability to apply knowledge of basic and clinical biomedical sciences to solve professional problems in the field of healthcare for management of internal diseases patients.	PLO 2
ELO 3	Ability to critically analyze clinical and patient management organization questions in the field of inpatient treatment of internal diseases, medicine and interdisciplinary problems related to it.	PLO 3
ELO 4	Ability to highlight and identify leading clinical symptoms and syndromes (from the list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his/her organs and systems, establish a preliminary and final clinical diagnosis of the disease (according to list 2).	PLO 4
ELO 5	The ability to collect complaints, present illness and past medical history, conduct physical examination, to evaluate the state of different organs and systems, basing on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (from list 4).	PLO 5
ELO 6	The ability to formulate a final clinical diagnosis by making a reasonable decision and analyzing the received subjective and objective data of clinical, additional examination, with differential diagnosis, observing the relevant ethical and legal norms, under the supervision of the physician (with list 2).	PLO 6
ELO 7	The ability to prescribe and analyze additional diagnosis tools (mandatory and optional) - laboratory, functional and/or instrumental (according to the list 4) of patients with internal diseases of organs and body systems for differential diagnosis of diseases and inpatient treatment (from list 2).	PLO 7
ELO 8	The ability to determine the main clinical syndrome or what causes the severity of the patient’s condition (from the list 3) by making a reasonable decision and assessing the person's condition under any circumstances (in the conditions of a health care institution or outside it), including conditions of emergency and hostilities, in absence of an access to Hospitals, in conditions of a limited information and limited time.	PLO 8
ELO 9	The ability to determine the nature and principles of inpatient treatment of patients with internal diseases (from the list 2), taking into account the age of the patient, in the conditions of a health care institution or outside its borders and at the different stages of medical evacuation, including absence of an access to Hospitals, on the basis of a preliminary diagnosis, observing relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard protocols, in case of the need to expand the standard treatment regimens, to justify personalized recommendations under the control of the supervising physician in Hospital	PLO 9
ELO 10	The ability to determine the necessary mode of work, rest and nutrition based on the final diagnosis, considering the relevant ethical and legal norms, by	PLO 10

	making a reasoned decision according to existing algorithms and standard protocols.	
ELO 11	The ability to determine the approach, plan and tactics of managing internal diseases in females with physiological pregnancy, physiological childbirth and the postpartum period by making a reasoned decision according to existing algorithms and standard protocols.	PLO 11
ELO 12	The ability to assess the general condition of a newborn child by making a reasoned decision according to existing algorithms and standards, observing the relevant ethical and legal norms.	PLO 12
ELO 13	The ability to assess and monitor the child's development, provide recommendations on feeding and specifics of nutrition depending on age, organize preventive vaccinations according to the calendar.	PLO 13
ELO 14	The ability to perform medical manipulations (according to the list 5) within a medical facility, at home or at work based on a previous clinical diagnosis and/or indicators of the patient condition by making a reasoned decision, upholding relevant ethical and legal standards.	PLO 17
ELO 15	The ability to determine the functional status of and limitations of a person's vital activities and the duration of disability with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course as well as a person's professional activity. Maintenance of medical documentation regarding the patient's case on the basis of regulatory documents.	PLO 18

5. DIAGNOSTIC TOOLS AND EVALUATION CRITERIA OF LEARNING OUTCOMES

Means of assessment and methods of demonstrating learning outcomes

Means of assessment and methods of demonstrating learning outcomes in the discipline are:

ELO 1 - oral answer
ELO 2 – clinical examination of the patient (solving clinical problems (oral, written)),
ELO 3 – clinical analysis of the patient (solving clinical problems), analysis of different tests results, prescriptions and their correction
ELO 4 – clinical examination of the patient (solving clinical problems), evaluation of laboratory tests results, analysis and evaluation of instrumental methods results and their parameters characterising the functions of the human body
ELO 5 – clinical problem solving tasks, sampling for different laboratory studies and their results evaluation, evaluation the of instrumental methods results and parameters characterizing the functions of the human body
ELO 6 – patient care, problem solving tasks, clinical cases, evaluation of laboratory tests results, analysis and evaluation of instrumental research results and parameters characterizing different systems functions and diseases
ELO 7 – analysis of prescriptions and their correction, problem solving tasks (oral, written, complex)
ELO 8 – case history, problem solving tasks (oral, written), oral interview
ELO 9 – demonstration of practical skills in providing emergency medical care, oral interview
ELO 10 – demonstration of medical procedures in Hospital, problem solving tasks (oral, written), oral interview

ELO 11 – clinical examination of the patient (solving clinical problems), problem solving tasks (oral, written), oral interview

ELO 12 - clinical examination of the patient (solving clinical problems), problem solving tasks (oral, written), oral interview

ELO 13 - clinical examination of the patient (solving clinical problems), problem solving tasks (oral, written), oral interview

ELO 14 - demonstration of medical procedures on dummies and in Hospital, problem solving tasks requiring the medical procedures

ELO 15 - demonstration of features in case of disabled patients examination with different disabilities, problem solving tasks regarding the disability evaluation and medical records maintenance (oral, written, computer)

Forms of control and criteria for learning outcomes evaluation

Forms of current control: (oral, written, demonstration of skills, etc.)
Form of module control: (oral and written - Case History)
Form of final semester control: (credit, exam)

Distribution of points received by higher education seekers (Internal Medicine)

Current assessment and self-study															**Self-study**	**Module**	**Total**
T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	50	50	**200**
7	6	6	6	6	6	6	6	6	6	6	6	6	6	15			

T1, T2 ... - topics

Evaluation of certain types of educational work in the discipline

Type of activity of the higher education seeker	**Module 1**	
	Number	Maximum number of points (total)
Individual work	10	100
Self-study	25	50
Module	1	50
Total		**200**

Criteria of current educational activity evaluation

The grade "*excellent*" (180-200 points) is awarded to students who actively participated in the discussion of the most complicated issues on the studied topic, gave at least 90% correct answers to standardized test tasks, completed written tasks without errors, completed practical tasks and properly presented their results.

The grade *"good"* (148-179 points) is awarded to students who participated in the discussion of the most complicated issues on the studied topic, gave at least 74% correct answers to standardized test tasks, made some minor mistakes in answers to written tasks, completed practical tasks and properly presented their results.

The grade "*satisfactory*" (120-147 points) is awarded to students who participated in the discussion of the most complicated issues on the studied topic, gave at least 60% correct answers to standardized test tasks, made significant mistakes in answers to written tasks, completed practical tasks and properly presented their results.
The grade *"unsatisfactory"* (0-119 points) is awarded to students who did not participate in the discussion of the most complicated issues on the studied topic, gave less than 60% correct answers to standardized test tasks, made gross mistakes in answers to written tasks or did not answer them at all, did not complete practical tasks and did not properly present their results.

Criteria for module Case History evaluation

A module Case History is done by filling in the Case History Form according to the details of the patient. After the Case History submission a Case Report is to be prepared with oral interview.
The grade "*excellent"* (45-50 points) is awarded to students who gave at least 90% correct answers to standardized test tasks and completed written tasks without errors.
The grade "*good*" (35-45 points) is awarded to students who gave at least 74% of the correct answers to standardized test tasks and made some minor mistakes in the answers to written tasks.
A student who gave at least 60% of the correct answers to standardized test tasks and made significant mistakes in the answers to written tasks receives the grade "satisfactory" (*30-35*).
The grade "*unsatisfactory*" (0-29 points) is awarded to students who gave less than 60% in total, made gross errors in answers as well as Case History completion, or did not provide answers to the given questions.

Criteria for the final control evaluation

The final semester rating is calculated as the arithmetic average of the grades. According to the Regulation on the assessment of students' educational achievements according to the credit-module system, if the final module grade is at least 120 points, then with the consent of the student, it can be counted as the final (semester) grade for the academic discipline. Students who are not satisfied with the final positive grades given by the teacher based on the results of module tests, as well as those who received "unsatisfactory" grades and at the same time have no unfulfilled practical (laboratory) classes, have the right to take a credit (exam) in the discipline. Full-time students are admitted to the final (semester) control of a specific discipline in the form of a credit or exam if, based on the results of the module tests, they scored at least 35 per cent of the possible points. Based on the results of the answers given during the exam/credit, a grade is awarded according to a 200-point scale. Regardless of whether the student takes the exam (credit) because their final module grade is unsatisfactory (70-119 points) or to increase the positive grade, the teacher gives the student a grade based solely on the level of their knowledge, demonstrated during the exam (credit), that is, based on 200 points, but the final (semester) grade cannot be lower than the final module grade.

Criteria for the final control evaluation

- the grade "*excellent*" (180-200 points, A) is awarded to students who: have comprehensive, systematic, and deep knowledge of educational and syllabus material; are able to independently perform the tasks prescribed by the syllabus, apply the acquired knowledge and skills in non-standard situations; learned the basic and familiarized themselves with the additional literature recommended by the program; mastered the

interrelationship of the main concepts of the discipline and are aware of their importance for the profession they acquire; freely express their own opinions, independently evaluate various life phenomena and facts, revealing their personal position; independently determine the individual goals of their own educational activity, revealed creative abilities and used them when studying the syllabus material, as well as demonstrated interest to scientific work.

- grade "*good*" (164-179 points, B) is awarded to students who: have comprehensive, systematic, and deep knowledge of educational and syllabus material, including applying it in practice, have sufficient systematic knowledge in accordance with the syllabus material, apply it reasonably in different situations; have the ability to independently search for information, as well as to analyze, set and solve professionally oriented problems; while answering the exam/credit questions they might have some inaccuracies, with correcting those themselves. The student should also be able to choose convincing arguments to confirm the studied material;
- the grade "*good*" (148-163 points, C) is awarded to students who: completed the work in general, but during the final control make a certain number of mistakes; are able to compare, generalize, systematize information under the guidance of a teacher, in general independently apply it in practice, control their own activities; learned the curriculum material, successfully completed the tasks prescribed by the program, familiarized themselves with the basic literature recommended by the program;
- the grade "*satisfactory*" (128-147 points, D) is awarded to students who: know the basic syllabus material to the extent necessary for further study and its use in the future profession; perform tasks well, but with a significant number of errors; familiarized themselves with the basic literature recommended by the syllabus; make mistakes when completing tasks during classes or exams but find ways to correct them under the guidance of the teacher.
- the grade "*satisfactory*" (120-127 points, E) to students who: have basic knowledge of educational and syllabus material in the amount necessary for further study and its application in the future profession, and the performance of tasks meets the minimal criteria. Knowledge is reproductive in nature.
- grade "*unsatisfactory*" (70-119 points, FX) is awarded to students who: revealed significant gaps in the knowledge of the main syllabus material and made fundamental mistakes during the completion of tasks provided by the syllabus.
- grade "*unsatisfactory*" (0-69 points, F) is awarded to students who learned the educational material only at the level of elementary recognition and reproduction of individual facts or did not learn it at all; made gross errors when completing the tasks provided by the syllabus; cannot continue their studies and are not ready for professional activity after graduating from the university without re-studying this discipline.

6. SYLLABUS

6.1. The content of the discipline

Individual work

Topic 1. Management of patients with respiratory and cardiovascular diseases.

Pulmonology (Respiratory Diseases) Department. Incidence and features of respiratory diseases in military divisions and combat conditions. Emergency aid in asthma attack and status asthmaticus. Management of patients with the most common diseases of the respiratory system. Management of patients with hypertnension and coronary artery disase. Incidence and features of cardiovascular diseases in military divisions and combat conditions. Acute and chronic heart failure management strategy. Management of patients with acute coronary syndrome. Diagnostic criteria, differential diagnosis and emergency aid in patients with acute coronary syndrome treatment rules of treatment and maintenance after discharge from the Hospital. Management of outpatients with cardiac arrhythmias. Diagnostic criteria, differential diagnosis and emergency aid in patients with cardiac arrhythmias, indications for hospitalization, rules of treatment and maintenance after discharge from the Hospital. Outpatient management of patients with COVID-19-associated cardiovascular disorders.

Topic 2. Management of patients with gastrointestinal, hepatobiliary and allergic diseases.

Gastroenterology Department. Management of patients with oesophagus, stomach, small and large intestine diseases in Hospital. Diagnostic criteria, differential diagnosis vs acute abdominal diseases requiring surgery, treatment strategy. Incidence and features of gastroenterology diseases in military divisions and combat conditions. Management of patients with diseases of hepatobiliary system and pancreas. Management of inpatients with the most common gastroenterological diseases (GERD, gastritis, peptic ulcer disease, chronic cholecystitis, chronic hepatitis, liver cirrhosis, chronic pancreatitis, entero- and colonopathy). management of the most allergic diseases. Principles of allergies diagnosis and treatment. Stratification of patients with allergies. Referral to the allergologist and specific desensitization indications. Outpatient management of immune insufficiency patients.

Topic 3. Management of patients with occupational, endocrine, kidney, rheumatology and hematology diseases.

Endocrinology Department. Diabetes mellitus: diagnostic criteria, differential diagnosis, treatment strategy. Management of patients with thyroid gland disorders. Management of patients with endocrine pathology (diabetes, thyroid gland diseases, adrenal cortex). Hypoglycemic and hyperglycemic coma: diagnosis, emergency care tactics. Management of patients with the most common diseases of the blood system and hematopoiesis organs (anemias, leukemias, lymphomas, myeloma, blood coagulation disorders). Characteristic features of haematology diseases, differential diagnosis, treatment strategy. Management of patients with anaemia and coagulopathies. Management of patients with haematological malignancies and leukemoid reaction. Principles of differential diagnosis in suspected haematological malignancies. Management of patients with glomerulonephritis, pyelonephritis, nephrolithiasis and other kidney diseases in Outpatient Clinic (Department). Diagnostic criteria, differential diagnosis indications for hospitalization, treatment strategy. Incidence and features of kidney diseases in military divisions and combat conditions. Outpatient management of patients with chronic kidney diseases with kidney failure.

Diagnostic criteria, differential diagnosis, indications for hospitalization, treatment strategy. Management of outpatients with arthritis and arthrosis. Management in collagen vascular disorders. Systemic lupus erythematosus, dermatomiozitis, systemic scleroderma, ankylosing spondylitis: diagnostic criteria, differential diagnosis, treatment strategy.

Topic 4. Management of patients with neurological disorders. Infectious diseases management.

Management of patients with the most common nervous system disorders. Neurology Department. Approach to the patient: diagnostic criteria, differential diagnosis, treatment strategy. Stratification of patients with brain disorders and psychology deviations. Referral to the psychiatric Hospitals indications. Management of patients with other common internal diseases. Other common endocrine disorders. Approach to the patient: diagnostic criteria, differential diagnosis, treatment strategy. Principles of diagnosis and differential diagnosis of infectious diseases, indications for referral to the Infectious Diseases Clinic. Antiepidemic aids in the focus of infection, quarantine in different infections. Outpatient management of patients with the most common occupational diseases. Approach to the patient: diagnostic criteria, differential diagnosis, procedure of occupational diseases verification.

Topic 5. Management of patients with emergency conditions in Internal Medicine.

Management of patients with acute coronary syndrome. Diagnostic criteria, differential diagnosis and emergency aid in patients with acute coronary syndrome treatment rules of treatment and maintenance after discharge from the Hospital. Management of outpatients with cardiac arrhythmias. Diagnostic criteria, differential diagnosis and emergency aid in patients with cardiac arrhythmias, indications for hospitalization, rules of treatment and maintenance after discharge from the Hospital. Outpatient management of patients with COVID-19-associated cardiovascular disorders. Emergency aid in anaphylactic shock, angioedema, toxic-allergic reactions. Hyper- and hypoglycemic coma. Pulmonary Edema.

Self- study

Topic 1. Approach to the patient in Internal Medicine. Management of patients with respiratory diseases, including emergencies.
Topic 2. Management of patients with cardiovascular diseases, including emergencies.
Topic 3. Management of patients with gastrointestinal and hepatobiliary diseases, including emergencies.
Topic 4. Management of patients with endocrine diseases, including emergencies.
Topic 5. Management of patients with kidney diseases, including emergencies.
Topic 6. Management of patients with hematology diseases, including emergencies.
Topic 7. Management of patients with rheumatic diseases, including emergencies.
Topic 8. Management of patients with allergies and immune disorders, including emergencies.
Topic 9. Management of patients with occupational and nervous system diseases, including emergencies.
Topic 10. Management of patients with infectious diseases, including emergencies.

6.2. The structure of the discipline

Titles of content modules and topics	Number of hours Form of study:					
		including				
	Total	lectures	practical classes (seminars)	laboratory classes	individual work	self-Study
Semester №12						
Topic 1. Management of patients with respiratory and cardiovascular diseases.	18				6	12
Topic 2. Management of patients with gastrointestinal, hepatobiliary and allergic diseases.	24				6	18
Topic 3. Management of patients with occupational, endocrine, kidney, rheumatology and hematology diseases.	30				6	24
Topic 4. Management of patients with neurological disorders. Infectious diseases management.	18				6	12
Topic 5. Management of patients with emergency conditions in Internal Medicine. Module.	6				6	
Total	**90**				**30**	**60**

6.3. Topics of practical (seminars, laboratory) classes

Practical (seminars, laboratory) classes are not required by this program

6.4. Self-study

№	Topic title	Number hours	
		Full-time study	Extramural form of study
1	Topic 1. Approach to the patient in Internal Medicine. Management of patients with respiratory diseases, including emergencies.		6
2	Topic 2. Management of patients with cardiovascular diseases, including emergencies.		6

3	Topic 3. Management of patients with gastrointestinal and hepatobiliary diseases, including emergencies.		6
4	Topic 4. Management of patients with endocrine diseases, including emergencies.		6
5	Topic 5. Management of patients with kidney diseases, including emergencies.		6
6	Topic 6. Management of patients with hematology diseases, including emergencies.		6
7	Topic 7. Management of patients with rheumatic diseases, including emergencies.		6
8	Topic 8. Management of patients with allergies and immune disorders, including emergencies.		6
9	Topic 9. Management of patients with occupational and nervous system diseases, including emergencies.		6
10	Topic 10. Management of patients with infectious diseases, including emergencies.		6
	Total		**60**

6.5. Individual tasks

№ .	Topic title	Number hours	
		Full-time study	Extramural form of study
1	Topic 1. Management of patients with respiratory and cardiovascular diseases.		6
2	Topic 2. Management of patients with gastrointestinal, hepatobiliary and allergic diseases.		6
3	Topic 3. Management of patients with occupational, endocrine, kidney, rheumatology and hematology diseases.		6
4	Topic 4. Management of patients with neurological disorders. Infectious diseases management.		6
5	Topic 5. Management of patients with emergency conditions in Internal Medicine. Module.		6
	Total		**30**

The students fill in their Practice Diaries during the individual work in the Health Care facilities.

7. TOOLS, EQUIPMENT AND SOFTWARE THE USE OF WHICH IS PROVIDED FOR THE EDUCATIONAL SUBJECT

(if necessary)

Devices for measuring blood pressure, phonendoscopes, glucometers RIGHTEST BIONIME GM550 with test strips ELSA/GS550, (2019), electrocardiograph, spirograph, peak flow meters, computer spirometry, pulse oximeters, thermometers, rapid test systems, mannequins are used for the educational process.

Students also get to know the operation of the endoscopy room and functional diagnostics room, where there is a gastrointestinal videoscope Olympus GIF-XP170N, Olympus GIF-H170 (2018) and a video colonoscope CF-H170L/I (2018), ultrasound system

CX50, Philips Ultrasound, Inc, Label PN 453561952821 , (2022) (in use with the Ukrainian National University) and a biodensitometer for determining body components (in joint use with the Department of Physiology).

In addition, didactic materials are used:

- plans of practical classes
- tasks for independent work
- methodological instructions/recommendations for students and teachers
- algorithms of treatment and provision of emergency care (according to the standards of evidence-based medicine)
- algorithms for performing practical skills, medical manipulations, video films
- results of laboratory and instrumental research methods
- dummies, phantoms
- questions, situational tasks, assignments or cases for current and final control.
- electronic bank of test tasks, situational tasks.
- laptop (type #1) Lenovo V15-ADA
- stationary personal computer No. 2 FC 210;
- UzhNU e-learning website e-learn.uzhnu.edu.ua.

8. RECOMMENDED SOURCES OF INFORMATION

Basic sources

1. Current Medical Diagnosis & Treatment. 61st edition. Edited by Maxine A. Papadakis, Stephen J. McPhee, MD, Michael W. Rabow, Kenneth R. McQuaid. - McGraw-Hill Education. - 2019. - 801p.
2. Oxford Handbook of Clinical and Laboratory Investigation. Edited by Drew Provan. Oxford University Press, 2018. - 1007 p.

Additional sources

1. Andrew Blann. Routine Blood Results Explained, the 4th edition (2021). Cambridge Scholars Publishing. - 172 p.
2. Critical Care Examination and Board Review. McGraw-Hill Education. - 2022. - 801p.
3. Baye´s de Luna, Antoni, Fiol-Sala, M. (Miquel), Genis, A. Baye´s, Baranchuk, Adrian. Clinical electrocardiography : a textbook. Fifth edition. / Antoni Baye´s de Luna, Miquel FiolSala, Antoni Baye´s-Geni´s, Adria´n Baranchuk; with contributions from Roberto Elosua, Manuel Marti´nez-Selle´s. - Hoboken, NJ : Wiley, 2022. - 1617 p.
4. Cotes' Lung Function, 7th Edition. Edited by Robert L. Maynard, Sarah J. Pearce, Benoit Nemery, Peter D. Wagner, Brendan G. Cooper (2020). - Willey Blackwell. - 775 p.
5. Disaster and Respiratory Diseases. Edited by Keisaku Fujimoto. - Springer Nature Singapore Pte Ltd, 2019. - 175 p.
6. Image-Guided Management of COVID-19 Lung Disease. Edited by Robert L. Bard. - Springer Nature Singapore Pte Ltd, 2021. - 163 p.
7. Oxford Handbook of Endocrinology and Diabetes, 4th edition. Edited by Katharine Owen, Helen Turner, John Wass. Oxford University Press, 2022. - 1130 p.

Information Internet resources

1. Clinical skills training: https://www.practicalclinicalskills.com
2. Biomedical deduction training resource https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02284-1
3. Practical skills desctiption (selected) https://repo.dma.dp.ua/3934/1/Practical_Skills_IM_2.pdf

Appendix

Results of the further review of the syllabus

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature) (Surname, initials)

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix ___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature)

(Surname, initials)

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix ___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature) (Surname, initials)

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature)

(Surname, initials)