INTERNATIONAL HIGHER SCHOOL OF MEDICINE

Propedtherapy and Family Medicine department

SYLLABUS

Elective course «Practical skills in physical examination therapeutic patients"

2025-2026 academic year
for students of medical faculty
3 course 5 semester, group 20
2 credits (60 h. including auditorial 36 h, independent work -24 h)

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Venue: Simulation center room 209
Railroad Hospital room №101

The Syllabus is considered
at the meeting of the Propedtherapy and Family Medicine department
Protocol №8 24.01.2026
Head of the department Kamchybekova A.A.

Course Objective: The objective of mastering the elective course Practical Skills in Examining Therapeutic Patients is to master the skills of examining and examining patients, as well as communicating with them.
This elective course is aimed at developing practical skills in collecting complaints and anamnesis, examination, the ability to make a preliminary diagnosis, and recognizing clinical manifestations of major diseases.

After study of the discipline the student must:
Know:
 The nature of normal biochemical processes at the level of organs, systems and the body as a whole, as well as standards for the results of biochemical and clinical studies;
 Indicators of biochemical and clinical studies confirming the diagnosis;
 The nature of methods of clinical laboratory and functional examination of the human body;
 The specifics of the main syndromes of damage to organs and systems in the most common diseases.
Skill:
 Recognize and interpret the results of biochemical and clinical studies, identify logical relationships between changes in biochemical parameters and the clinical state of the body;
 Analyze the results of biochemical and clinical studies to identify the main criteria confirming the clinical diagnosis;
 Analyze the results of clinical, laboratory and functional examination of the human body, taking into account their specificity in order to diagnose major diseases;
 Group disease syndromes into nosological forms based on clinical, laboratory and functional examination methods for diagnosing diseases and pathological processes.
Attitude:
 Skills in making a preliminary diagnosis based on the results of biochemical and clinical studies;
 Skills in reasoned justification of a clinical diagnosis;
 Skills in conducting basic clinical, laboratory and functional examinations;
 Skills in justifying and formulating a diagnosis based on the results of clinical, laboratory and functional examinations.

Pre-requisites.
- Anatomy (micro- and macroanatomy)
- Normal physiology
- Medical biology
- Biochemistry
- Pathology
- Propedtherapy

Post-requisites.
- Internal diseases
- Surgical diseases
- Obstetrics and gynecology
- Policlinic therapy
- Family medicine

"Practical skills for examining therapeutic patients". Thematic plan of practical classes.

Topics of practical classes	Forms of control		Labor intensity (hour)
	current	borderline	
Unit 1. Practical skills in examining the respiratory, cardiovascular, musculoskeletal and endocrine systems.			
PL 1: Rules and procedures for collecting complaints, medical and life history, risk factors in patients with various clinical conditions	Oral survey		2
PL 2: Examination of the patient, assessment of	Oral survey, control of		2

general condition, consciousness, examination of the skin, assessment of the condition the musculoskeletal system, neuropsychiatric status.	practical skills implementation		
PL 3: Physical examination of patients with diseases of the respiratory and cardiovascular systems (palpation, percussion, auscultation).	Oral survey, control of practical skills implementation		2
PL 4: Evaluation and interpretation of the results of laboratory and instrumental studies in various clinical conditions.[Total blood count.,urine analasis,X-ray)	Oral survey, Testing,case		2
PL5: Electrocardiogram technique. Analysis of ECG leads, Determination of EOS, Evaluation of normal ECG parameters-.arrhythmia,ischemia	Oral survey, control of practical skills implementation		2
PL6: Analysis of a clinical case on an interactive patient (“Leonardo”).	Oral survey, control of practical skills implementation-[strictly conduct lesson in Simulation center]		2
PL 7: Cardiac failure.Technique for carryng out emergency cardiopulmonary resuscitation on a simulator [CPR room in Simulation center]	Oral survey, control of practical skills implementation		2
PL 8: Examination and assessment of the condition of the endocrine system organs: thyroid and pancreas, adrenal glands, determination of eye symptoms, Itsenko-Cushing syndrome……..	Oral survey, control of practical skills implementation		2
PL 9: Module passing	Oral survey, testing		2
Total			18
PL 10: Rules and procedures for collecting complaints, medical and life history, risk factors in patients with abdominal and urogenital system pathology[.Leonardo simulator in room210 Simulation center]	Oral survey, control of practical skills implementation		2
PL 11: Inspection, palpation, percussion of abdominal organs. Determination of symptoms of peritoneal irritation, symptoms of gallbladder inflammation, tapping on the 12th rib	Control of the implementation of practical skills on simulator Leonardo or human torso strictly in Simulation center.		2
PL 12: Evaluation and interpretation of the results of laboratory and instrumental studies in clinical conditions of damage to abdominal organs.	Oral survey, Testing		2
PL 13:Rules.collecting complaints .medical history and physical cxamination patients with pathology of urogenital system [urography techniquec.three-glasses sample,ultrasound kindey.X-ray samples]	Control of the implementation of practical skills		2
PL 14:analasis and interpretation different investigation of organs urogenital system	Control of the implementation		2

	practical skills		
PL 15: Analysis a clinical case on an interactive patient with modeling of clinical situations with damage to abdominal organs ("Leonardo").	Oral survey, control of practical skills implementation. Clinical case		2
PL 16: Rules, procedure for collecting complaints, medical history, life, risk factors and examination, palpation, percussion in patients with pathology of the hematopoietic organs.	Oral survey, control of practical skills implementation		2
P L11: Evaluation and interpretation of complete blood count.biochemical investigation organs of hemopoetic system[Total blood count ,blood smear examination]	Oral survey, control of practical skills implementation		2
PL 18: Module No. 2.	Oral survey, Testing		2
Total			18
Total			36

THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

Unit	name of works	Hour
Respiratory system and cardiovascular system	Make tables with normal values of the lower and upper boundaries of the lungs, the width of the Krenig fields, the mobility of the lower edge of the lung and changing borders in different abnormalities[cancers,tuberculosis,fibrosis,cysts,abscess] Make a table with the characteristics pathological respiratory sounds and samples Peakfloumetry results in bronchial asthma X-ray picture in pnevmonia X-ray picture in emphizema of lungs X-ray picture in hypertension ECG interpretation in arrythmia,ischemia Choose topics for presentation-Pagets disease -Rhabdomyosis -Marfan syndrome --Osteomielitis Radiological signs of rheumatologic arthirites	**12**
Practical skills in examination of abdominal organs	Write a summary: characteristics of organs during deep sliding palpation of the abdomen in the norm and abnormalities. Draw a diagram of liver percussion according to Obraztsov and Kurlov. Make a table with the main biochemical indicators of liver function and -in cirrhosis- -hepatities -pancreatities -fatty hepatosis Interpretation of stool analysis and the Bristol classification. Make a summary indicating the parameters of a general urine analysis and the values of the test according to Nechiporenko, Zimnitsky, Adiss-Kakovsky and	**12**

	for glomerulonephities -pyelonephritis -renal failure -Make a table indicators of kidney blood tests and biochemical samples in different abnormalities. .	
	Total	**24**

Recommended reading for the discipline:
Basic:

№	Authors	Title	Year of publication	Publishing house	Availability in the library IHSM (quantity)
1	Harrison	"Principles of Internal Medicine	2005	McGraw-Hill	1 Part -18pcs Part 2 - 20 pcs.
2	Harrison	"Principles of Internal Medicine	2004	McGraw-Hill	1part - 65pcs 2part- 66pcs
3	Davidsons	Principles and practice of medicine	2001	Elsevier	5 pcs.
4	Barbara Bates	Guide to physical examinational and history taking	2019	Lippincott Uzma Firdaus	2 pcs.
5	Harrison	Principles of internal medicine	2005		2pcs

Additional:

№	Authors	Title	Year of publication	Publishing house	Availability in the library IHSM (quantity)
1	First aid for USMLE step 1	Rapid review of pathology by Goljan	2018		
2	Radiology-Satish.K.Bhargava	Textbookof radiology	2007	3d edition	

Grading policy and procedures for all types of work
For the period of studying the discipline, the student gains points for the relevant parameters (per unit):
current score - 40 points
independent work - 20 points
control score (final assessment of knowledge per unit) - 40 points
Maximum score - 100 (40+20+40)

Grading system for student's achievements

Grading criteria per discipline	
Maximum score	Intervals

	«unsatisfactory»	«satisfactory»	«good»	«excellent»
Current control- 40	0-11	12-15	16-17	18-20
Interval description	Does not know theory and practice. No communication skills	mastered some of the theory and practice. Average communication skills	Mastered it well, but not completely theory, practice, communication skills	I mastered theory and practice correctly. Communication skills are developed
Independent work - 20	0-11	12-15	16-17	18-20
Interval description	Nothing delivered Or it's passed and everything is wrong	homework turned in, but not completely and with errors	Not all homework has been submitted, or has been submitted in full, but there are errors	All homework assignments have been submitted completely and correctly.
Control work (module) – 40	0-23	24-30	31-35	36-40
Interval description	Knows nothing, cannot show practical skills	In theory, he doesn't know many things. Practical skills – many mistakes	The theory answers, but gets confused. Knows practical skills, but gets confused	He knows the theory well. Passed practical skills

Conduct Policy: (lateness, absence, behavior in the auditorium, late submission of work).
- Punctuality and completion of tasks.
- Mandatory attendance of classes.
- Attending class in a clean medical uniform.
- Eliminating conversations on a cell phone in the classroom.
- Active participation in the learning process.
- Doing homework on time.
- Academic detention at the time specified by the teacher.

For violations of the Conduct Policy, the total points for discipline might be reduced to 1-10 points.

Academic Ethics Policy.
- Be tolerant, respect the opinions of others.
- Formulate objections in the correct form.
- Constructively support feedback in all classes.
- Plagiarism and other forms of dishonest work are unacceptable. Plagiarism includes the following: the absence of references when using printed and electronic materials, quotes, thoughts and works of other authors or students.
- Prompting and cheating during tests, exams, classes is unacceptable as well as passing an exam for another student, unauthorized copying of materials.

For violations of the Academic Ethics Policy, the total points for the discipline may be reduced to 1-10 points.

Guidelines for the lessons of the discipline

Key questions covered in lesson 1.

1. Components of health history
   1. Present history
   2. Past history meaning
   3. Family history
   4. Social history
   5. Review of system

Recommended readings:

A Harrison (1) p 1-31

C Barbara Bates (1) p 8-30

Key questions covered in lesson 2.

1. General examination (inspection).

2. Variants of consciouiness, posture, type of bild.
3. Necessary equipment.
4. Ethical, deontological standards using from various types of people.

Recommended readings:

A Harrison (2) p 119-139
(3) p 49-83
C Barbara Bates (4) p 67-105

Key questions covered in lesson 3.

1 Palpation of chest
2 Percussion (comparative, topographic).

Recommended readings:

A Harrison (1) p 284
(2) p 244-248, 253-254
(3) p 127-147

Key questions covered in lesson 4.

Auscultation of lungs. Sleep apnea
A First aid for USMLE step1,2022 p703
C Barbara Bates **318-329**

Key questions covered in lesson 5.

1. Spirometry test introduction with samples and treatment.

Recommended readings:

A Harrison *p(140-143)*

Key questions covered in lesson 6-7.

1. Introduction to OSCE exam.equipment of Simulation center .interactive patient,CPR,ECG).
Work with 3-6 team using active - innovative learning (case-study).
Bronchial asthma

Recommended readings:

Instructions for mannequins

Key questions covered in lesson8

osteoporosis
Recommended readings:Rapid rewiew of pathologyby Goljan .2018.p707

Key question covered in lesson 9

Physical investigation CVS-system
-palpation,percusssion,auscultation
phenomena of heart

Recommended readings:

A Harrison (1) p 274-288
(4) p 153-156,159
(5) p 169-171
(6) p 265-271, 295-298

Key question covered in lesson 10

Interpretation ECG with different abnormality samples

Key question covered in lesson 11

Lesson with using PBL active-learning method with arterial hypertension stage 2

Recommended readings:

Appendix 1 PBL- learning with arterial hypertension scenario

Key questions covered in lesson 12.

Lesson with using TBL method with patient with acquired heart disease
Appendix 1-using TBL scenario heart disease
*Recommended reading:****First aid for USME STEP1,2022 p298***

Key questions covered in lesson 13. ***Modul passing***

1. A survey characteristic of aesthenic constitution and hypersthenic constitution adult health history. The standard history framework. Differences between subjective and objective data.
2. Adult health-history. Present complaint (s). The exact nature of the symptom(s).

3. Adult health-history. Systematic enquiry.
4. Adult health-history. Past medical history.
5. General survey: characteristic of aesthenic constitution and normosthenic constitution.
6. General survey: characteristic of hypersthenic constitution and normostenic constitution.
7. General survey: characteristic of aesthenic constitution and hypersthenic constitution.
8. The physical examination: the posture, weight and height. Calculating the BMI.
9. The vital sings (blood pressure, heart rate, respiratory rate, and temperature).
10. Techniques of examination: skin, mucosa membrana, hair, and nails.
11. The rules of palpation the lymph nodes. Characteristics of lymph nodes in healthy person.
12. Techniques of examination the neck. The jugular venous pressure (JVP) and pulsations Measurement JVP.
13. Steps for palpating the thyroid gland.
14. The examination of the chest. The normosthenic, aesthenic, hypersthenic forms of chest.
15. Techniques of examination he thorax and lungs. Initial survey of respiration and the thorax.
16. The examination of the chest. Palpation of the chest. The determination of tactile fremitus
17. The examination of the chest. Palpation of the chest. Test chest expansion.
18. The comparative percussion of lungs. The rules and method of comparative percussion.
19. The rules of topographic percussion of the lung. The determination of upper and lower borders of lungs. The normal limits of the percussion borders.
20. The rules of topographic percussion of the lung. The normal limits of the lungs borders.
21. The determination of mobility of low borders of lungs. The normal levels of mobility of lungs
22. The rules of lung`s auscultation. The characteristic of bronchial and vesicular sounds.
23. The rules of lung`s auscultation. Mechanism of forming the vesicular breathing. The characteristic of vesicular breathing.
24. The rules of lung`s auscultation. Mechanism of forming the bronchial breathing. The characteristic of bronchial breathing.
25. The rules of lung`s auscultation. The determination of bronchophony.
26. Auscultation of lungs. Characteristics of breath sounds.
27 . Modern representations about properties of pulse of the healthy person,
28. Physiological (negative) venous pulse.
29. Sequence palpation vessels, localization.
30. Modern representations about normal arterial pressure
31. Rules and a technique of measurement of arterial pressure, Korotkov's tones.
32. Venous pressure, a measurement techniquec, value in norm
33. Inspection, palpation of heart area.
34. Apex beat, its characteristic in norm
35. Percussion of heart, rules and techniques. Heart contours.
36. Relative dullness of heart, the techniquec of definition, its border in norm.
37. Absolute dullness of heart, the techniquec of its definition, its border in norm.

Key questions covered in lesson 14.
Diabetes mellitus,classification,typesof diabetes.acute and chronic complication
Recommended readings
C Barbara Bates *p 470-479*

Key question covered in lesson 15
Physical and instrumental examination of the liver and spleen
Recommended readings:
A Harrisons principles of internal medicine 2005

Key questions covered in lesson 16
Interpretation of blood tests for various conditions (inflammation, allergies, injuries)
Conducting a lesson using active-learning methods (PBL, TBL).
Recommended readings:
A Harrison p 18-22

Key questions covered in lesson 17.
Clinical and laboratory studies in GIS (biochemical investigation hepar, spleen).
Recommended readings:
A. (1) p 28-36

Key questions covered in lesson 18. *Module*
1. The main diseases of the digestive system.

2. Typical complaints of patients, their semiotics.
3. Peculiarities of anamnesis (morbi et vitae), risk factors.
4. Clinical topography of the abdomen.
5. Examination of the abdomen (rules, methods), results and their interpretation.
6. Abdominal percussion (physical rationale, rules, technique), results and their interpretation.
7. Palpation of the abdomen (physical rationale, rules, technique), results and their interpretation.
8. Auscultation of the abdomen (physical rationale, rules and technique), results and their interpretation.
9. The value of additional research methods, their gradation.
9.1. Laboratory methods: list, interpretation.
9.2. Functional methods: list, meaning of results.
9.3. X-ray methods: types, interpretation of the data obtained. 9.4. Endoscopic methods: types, interpretation of results.
9.5. Ultrasonic methods.
9.6. Aggressive (invasive) methods.
9.7. Other methods (puncture of the abdominal cavity).
10. Plan of rational examination of a patient with the most common diseases of the digestive system.
11. The main clinical syndromes in gastroenterology:
11.1. Sharp abdomen.
11.2. Gastrointestinal bleeding (hemorrhagic).
11.3. Violations of the evacuation of contents from the stomach.
11.4. Hypersecretory.
11.5. Hyposecretory.
11.6. Irritable bowel.
11.7. Malabsorption (impaired digestion and absorption).
12. The value of auscultation in nephrology.
13. The value of additional research methods, their gradation.
14. Laboratory methods: list, interpretation.
15. Functional methods: list, meaning of results. 8.3. X-ray methods: types, interpretation of the data obtained.
16. Endoscopic methods: types, interpretation of results.
17. Ultrasonic and radioisotope methods.
18. Other methods (kidney puncture).
19. Plan of rational examination of a patient with the most common diseases of the urinary system.
20. Basic clinical syndromes in nephrology (algorithm presentation).

Methodological instructions for the implementation of independent work on the discipline.

UNIT 1

PRACTICAL SKILLS IN RESPIRATORY AND CARDIOVASCULAR SYSTEM.

To make the abstract on a subject a thorax palpation.

	Values in norm	**Picture**
Exspantion		
Rate		
Epigastrical angle		
elasticity		
Vocal fremitus		

To make the table with the characteristic the percussion sounds

To make tables with normal values of the lower and upper bounds of lungs, width of Krenig s fields, mobility of bottom edge of a lung.

Normal values of the lower borders of lungs

Topographical lines	*Right lung*	*Left lung*
Parasternaly		
midclaviculary		
Ant. Axillary		
Mid. Axillary		
Post. Axillary		
Scapulary		
Paravertebrally		

Normal values of height of "apex" of lungs

	Right Lung (Border in norm)	Patient's border	Left lung (Border in norm)	Patient's border
In front				
Behind				

Normal values of width of fields (places) of Krening

	Border in normal	Patient's Border
Right Lung		
Left Lung		

Topographycal Lines	mobility of lower edge of lungs (sm)					
	Right lung			*Left lung*		
	on a breath	on a exhalation	Total mobility	on a breath	on a exhalation	Total mobility
Midclaviculary						
Mid. Axillary						
Scapulary						

To make the table with the characteristic of respiratory noise.

Basic respiratory sound	Duration phase of inspiration and expiration	Intensity and sound height.	Place auscultation.
Vesicular			
Broncho-vesicular			
Bronchial			
Tracheal			

To draw the scheme of an auscultation of a lungs
To draw the scheme LFTs and to specify normal values of volumes and capacities of lungs

To write the abstract about rules and technic of measurement of arterial pressure

Position of the patient	

1. wave	process	Amplitude (mm)	Duration (sec)
P			
Q			
R			
S			
T			
P-Q (R) interval			
Condition			

Category	Systolic	Diastolic
High normal		
Normal		
Optimal		
Hypertension		
Stage 3 (severe)		
Stage 2 (moderate)		
Stage 1 (mild)		
Equipment		
Frequency		
rules		

To make the table of classification of arterial pressure

To write the abstract on a research of pulse and its characteristic

	Values in norm
Rate	
Rhythm	
symmetry	
Volume	
intensuty	

To draw an anatomic locating of arteries

To draw the graphic representation of pulse waves of arteries and veins according to an ECG

To draw the table about the indicating value of the ECG components (waves, segments, complexes and intervals), to specify their amplitude and duration.

To draw the schedule of ECG in norm.

Unit №2

PRACTICAL SKILLS IN EXAMINATION OF ABDOMINAL ORGANS

To draw the scheme of a forward abdominal wall in two options with separation into 4 and 9 parts

To draw the scheme of a locating of abdominal organs on a forward abdominal wall

Epigastric region	
Right hypochonrical region	
Left hypochondrical region	
Right lumbar region	
Left lumbar region	
Umbilical region	
Right illiac region	
Left illiac region	
Hypogastric region	

To write the abstract: the characteristic of organs at the deep sliding palpation of a abdomen in norm

Part	**Characteristic**
Sigmoid	
Ceacum	
Ascendinng and descending colon	
Transvers colon	
Stomach	

To draw the scheme of a percussion of a liver according to Obraztsov s and Kurlov s
To make the table with indicators of a research of a gastric juice, biochemical parameters of a liver and pancreas.

To make the table with indicators of the general blood test

Indicator	**Normal indicators in SI system**
Haemoglobin (Нв) -men -woman	
RBS -men -woman	
Colour index	
The haemoglobin maintenance in eritrocyte	
Reticulocytes	
Thrombocytes	
Leukocytes	
Neutrophyls: -stick -segmented	
Eosynophyls	
Basophyls	

Lynphocytes	
Monocytes	
Erythrocyte sedimentation rate: (ESR) -Men -woman	

To make the abstract with the indicating of parameters and values of urine stick test, Nechiporenko s test, Zimnitsky s test, Adiss -Kakovsky s test

Urine stick test

Physical properties	
color	
transparency	
density	
Chemical properties	
pH	
Protein	
glucose	
ketons	
Reaction to blood	
bilirubin	
Bile acids	
Microscopy	
Epithelium: Flat Transitional Kidney	
Leukocytes: At men At women	
Erythrocytes: Not changed Changed	
Cylinders	
slime	
Amorphous salts	
bacteries	

Nechiporenko s test

RBC	
WBC	
cylindrs	

Adiss-Kakovsky s test

RBC	
WBC	
cylindrs	

Zimnitsky s test

Voleme per day	
Diuresis	
Chenges of dencity	

To make the table of indicators of renal blood tests

	Values

Filtrate nitrogen	
BUN	
Creatinin	