

Kharkiv National Medical University
Faculty: VI Faculty for Training of Foreign Students of the Educational and
Scientific Institute for the Training of Foreign Citizens
Department of Internal Medicine № 3 and Endocrinology
Area of knowledge "22" Health care
Specialty "222" Medicine
Educational and professional program of the second level of higher education

SYLLABUS OF THE COURSE

"Internal medicine, including endocrinology"

The syllabus was approved at the meeting of
the Department of Internal Medicine №3
and endocrinology

Protocol № 13 from “28” August 2020

Head of Department
_____ prof. Zhuravlyova LV

The syllabus is approved by
methodical commission of KhNMU
on problems of professional training of
therapeutic profile

Protocol №_1 from «_31»__08__2020

Head
_____prof. Kravchun P.G.

NAME OF THE COURSE:

Internal medicine, including endocrinology

Syllabus compilers:

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Website of the department: <http://vnmed3.kharkiv.ua/>.

Class schedule: Monday, Tuesday, Wednesday, Thursday, Friday (8.45-12.20 - first shift, 12.25-15.50 – second shift according to the schedule).

Location: classrooms of the Department of Internal Medicine №3 and endocrinology on the basis of Communal Non-profit Enterprise of Kharkiv Regional Council "Regional Clinical Hospital" (Kharkiv, Independence Ave. 13).

Information about discipline

1. Description of the discipline.

Fourth year.

Fourth year of study, 7th and 8th semesters.

Discipline scope:

Number of credits – 6

The total number of hours – 180.

Hours for study: classroom – 160, independent student work– 20.

Lectures – 40

Practical classes - 120

Independent work 20

Control type: credit

General characteristics of the discipline: the course of internal medicine (section "Internal medicine including endocrinology") is designed for 4th year students.

Page in Moodle: <http://31.128.79.157:8083/course/index.php?categoryid=14>.

- 2. The purpose and objectives of the discipline.** The purpose of teaching the discipline "Internal Medicine, including endocrinology " is acquiring and deepening of knowledge, skills, abilities and other necessary professional activities and competencies in internal medicine, which are established on the basis of educational and professional program.

The main objectives of the discipline "Internal Medicine, including endocrinology " is the acquisition of student`s competencies in accordance to the general and professional competencies of the educational-professional program "Medicine" of the second (master's) level of higher education in 222 Medicine qualification Master of Medicine.

- 3. Status and format of the discipline.** The discipline is normative, the format is mixed

4. Teaching methods. Presentations, videos, guidelines.

5. Recommended literature:

1. Внутрішня медицина: Порадник лікарю загальної практики: навчальний посібник. / А.С. Свінціцький, О.О. Абрагамович, П.М. Боднар та ін.; За ред. проф. А.С. Свінціцького. – ВСВ «Медицина», 2014. – 1272 с. + 16с. кольоров. вкл.
 2. Гастроентерологія. Підручник: У 2 Т. -Т.1 / за ред. проф Н.В Харченко., О.Я. Бабака. - Кіровоград: Поліум, 2016. - 488 с.
 3. Гастроентерологія. Підручник: У 2 Т. -Т.2 / за ред. проф Н.В Харченко., О.Я. Бабака. -Кіровоград: Поліум, 2017. – 432 с.
 4. Ендокринологія: підручник (П.М. Боднар, Г.П. Михальчишин, Ю.І. Комісаренко та ін.) За ред. професора П.М. Боднара, - Вид. 4, перероб. та доп. – Вінниця: Нова Книга, 2017. – 456 с.
 5. Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. – 1440p.
 6. Endocrinology: textbook /Ed. by prof. Petro M. Bodnar.- 4th ed. updated – Vinnitsa: Nova Knyha, 2017. – 328 p.
 7. Principles and Practice of Infectious Diseases. 2-Volume set / J.E. Bennet, R. Dolin, M.J. Blaser – 8-th edition : Saunders Publisher, 2014.
 8. USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 pages.
- сайт кафедри внутрішньої медицини № 3 та ендокринології ХНМУ
<http://www.vnmed3.kharkiv.ua/>, встановлене інформаційно-освітнє середовище Moodle на піддомен сайті <http://distance-training.vnmed3.kharkiv.ua>.

6. Prerequisites and co-requisites of the discipline. Anatomy, physiology, histology, pathological anatomy, pathological physiology, propaedeutics of internal diseases ; clinical pharmacology, surgery, pediatrics.

7. Learning outcomes.

List of acquired knowledges:

- clinical syndromes "alarming" symptoms with diseases of internal organs;
- etiopathogenetic mechanisms of development, classification, features of course and complications;
- standards and protocols of diagnosis, treatment algorithms for diseases of internal organs.

List of acquired skills and abilities:

- Interview and physical examination of patients.
- Define etiological and pathogenetic factors of diseases.
- Analysis of typical clinical pictures of the most common diseases.
- Identification of clinical variants and complications of main internal diseases.
- Formulation of a preliminary diagnosis of main diseases of internal organs, drawing up a plan for examination of the patient.
- Make a differential diagnosis, formulate a clinical diagnosis.

- Determine the tactics of the patient management, assess the prognosis and performance in main diseases of the digestive, respiratory, blood and hematopoietic organs, endocrine system.
- Diagnose and treat patients in emergency conditions.
- Conduct prevention of major diseases of the digestive, respiratory, blood and blood-forming organs, the endocrine system.
- Perform medical manipulations.
- Possess the principles of a medical specialist and professional subordination.

The content of the discipline

Training and thematic plan

№	Topic	Hours
1	Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis	6
2	Type 1 and type 2 diabetes mellitus, modern methods of therapy	6
3	Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus in surgical patients and during pregnancy	4
4	Iodine deficiency diseases of the thyroid gland. Signs of endemic terrain according to the WHO. Clinic, diagnosis, prevention and treatment. Hypothyroidism and thyroiditis . Classification, diagnosis, clinic, treatment	6
5	Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis, treatment. Diseases of the parathyroid gland	4
6	Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Hormonally active tumors of the adrenal glands	6
7	Diseases of the hypothalamic-pituitary system. Obesity and its consequences Diseases of the gonads	6
8	Final credit on diseases of endocrine system.	4
9	Consideration of the medical history. Gastroesophageal reflux disease .	6
10	Dyspepsia. Chronic gastritis	6
11	Peptic ulcer of the stomach and duodenum	6
12	Celiac disease and other enteropathies	4
13	Inflammatory bowel disease. Irritable bowel syndrome	6
14	Gallstone disease, chronic cholecystitis and functional disorders of the biliary tract	6
15	Chronic hepatitis	6
16	Cirrhosis of the liver	6
17	Chronic pancreatitis	6

18	Final credit on diseases of digestive system	4
19	Chronic obstructive pulmonary disease	6
20	Bronchial asthma	6
21	Pneumonia	6
22	Pleurisy	4
23	Infectious and destructive lung diseases	4
24	Respiratory failure	4
25	Final credit on diseases of respiratory system	4
26	Anemias	6
27	Acute leukemias and chronic leukemias	6
28	Hemophilia and thrombocytopenic purpura	4
29	Final credit on diseases of blood and hematopoietic system	4
30	Principles of evidence-based medicine	2
31	Diagnosis and treatment of diseases of the internal organs in the elderly	2
32	Differential credit	4
	Total	160

Topics of lectures

№	Topic	Hours
1	Diabetes. Modern classification, etiology, pathogenesis, clinic, diagnosis. Chronic complications of diabetes	2
2	The modern methods of treatment of patients with diabetes. Oral hypoglycemic agents, modern insulin preparations and its analogues	2
3	Thyroid disease. Diagnosis, differential diagnosis, prevention and treatment of goiter	2
4	Diseases of the adrenal glands. Chronic adrenal insufficiency. Hormonally active tumors.	2
5	Diseases of the hypothalamic-pituitary system. Clinic, diagnosis, treatment.	2
6	Gastroesophageal reflux disease	2
7	Dyspepsia and chronic gastritis	2
8	Peptic ulcer of the stomach and duodenum	2
9	Inflammatory bowel disease. Irritable syndrome intestines	2
10	Gallstone disease, chronic cholecystitis and functional biliary disorders	2
11	Chronic hepatitis	2
12	Cirrhosis of the liver	2
13	Chronic pancreatitis	2
14	Chronic obstructive pulmonary disease	2
15	Bronchial asthma	2
16	Pneumonia	2

17	Anemia	2
18	Acute and chronic leukemias	2
19	Principles of evidence-based medicine	2
20	Diagnosis and treatment of internal diseases organs in the elderly	2
Total		40

Topics of practical classes

№	Topic	Hours
1	Diabetes mellitus, classification, etiology, pathogenesis, clinic, diagnosis.	4
2	Acute and chronic complications of diabetes. Features of the course and treatment of diabetes mellitus surgical patients during pregnancy.	4
3	Type 1 and type 2 diabetes mellitus, modern methods of therapy.	4
4	Iodine deficiency diseases of the thyroid gland. Signs of endemic terrain according to the WHO. Clinic, diagnosis, prevention and treatment. Hypothyroidism and thyroiditis . Classification, diagnosis, clinic, treatment.	4
5	Thyrotoxicosis. Clinical forms. Diagnosis, treatment. Thyroid cancer. Classification, clinic, diagnosis, treatment. Diseases of the parathyroid glands.	4
6	Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, clinic, diagnosis, prevention and treatment. Hormonally active tumors of the adrenal glands.	4
7	Diseases of the hypothalamic-pituitary system. Diseases of the gonads. Obesity and its consequences.	4
8	Final credit on diseases of the endocrine system.	4
9	Gastroesophageal reflux disease.	4
10	Dyspepsia. Chronic gastritis.	4
11	Peptic ulcer of the stomach and duodenum.	4
12	Celiac disease and other enteropathies.	4
13	Inflammatory bowel disease. Irritable bowel syndrome.	4
14	Gallstone disease, chronic cholecystitis and functional biliary disorders.	4
15	Chronic hepatitis.	4
16	Cirrhosis of the liver.	4
17	Chronic pancreatitis.	4
18	Final lesson on diseases of the digestive system.	4
19	Chronic obstructive pulmonary disease.	4
20	Bronchial asthma.	4
21	Pneumonia.	4

22	Pleurisy.	4
23	Infectious and destructive lung diseases.	4
24	Respiratory failure	4
25	Final lesson on respiratory diseases.	4
26	Hemophilia and thrombocytopenic purpura.	4
27	Anemia.	4
28	Acute and chronic leukemias.	4
29	Final lesson on diseases of the blood and hemopoetic organs	4
30	Final credit	4
Total hours of practical classes		120

Independent work

№	Topic	Hours
1	- Mastering the skills to analyze the data of laboratory research methods (glucose tolerance test, glycemic profile, C-peptide, HbA1c, protein, lipid metabolism. Mastering the skills of prescribing antidiabetic drugs, calculating doses and prescribing insulin, prescribing recipes	2
2	- Mastering the skills of providing medical care to patients with ketoacidosis, diabetic ketoacidotic and hypoglycemic insects.	2
3	- Mastering the skills of interpretation of data from hormonal examination of the thyroid gland (TSH, T3, T4, APO. Calcitonin, antibodies to TSH receptors, thyroglobulin	1
4	- Mastering the skills of interpreting the data of hormonal examination of the adrenal glands (ACTH, cortisol, aldosterone, renin, blood electrolytes and metanephrine in urine).	1
5	- Mastering the skills of determining the degree of obesity by BMI. - Mastering the skills of interpretation of hormonal examination data (STG, IGF-1, prolactin, gonadotropins, vasopressin) and urine analysis according to Zymnysky.	1
6	- - Mastering the skills of interpreting the results of respiratory tests with a stable isotope (¹³ C-urea). - - Mastering the skills of interpretation of the study of acid formation; results of esophagogastroduodenoscopy with biopsy.	1
7	- - Mastering the skills of interpreting the results of the coprocytogram; enzyme-linked immunosorbent assay for antibodies to tissue transglutaminase and gliadin peptides in celiac disease (ELISA method), hydrogen tests, fecal calprotectin	1
8	- - Mastering the skills of interpreting data of general and biochemical analysis of blood (total protein, protein fractions, bilirubin and its fractions, the activity of ALT,	2

	AST, alkaline phosphatase); evaluation of the results of serological blood tests (serum markers of viral and autoimmune hepatitis; polymerase chain reaction, qualitative and quantitative analysis; genotyping of the virus); interpretation of ultrasound data of the liver, spleen and vessels of the portal system (Doppler); elastography data, fiber scanning.	
9	- - Mastering the skills of interpreting the data of general analysis of blood, urine (α -amylase), biochemical analysis of blood (elastase 1, α -amylase), analysis of feces for fecal elastase 1. Mastering the skills of evaluating the results of carbohydrate metabolism (glucose, insulin, C-peptide, pancreatic polypeptide, blood glucagon; test with sugar load, galactose, D-xylose).	1
10	- - Mastering the skills of interpretation of sputum analysis (microscopic, bacteriological, bacterioscopic examination), determination of sensitivity to antibiotics. - - Mastering the skills of interpreting the indicators of the function of external respiration; interpretation of sonography and chest radiography data on the topic. - - Mastering the skills of interpretation of the analysis of pleural fluid (microscopic, bacteriological and bacterioscopic examination).	1
11	- - Mastering the skills of interpreting a general blood test; interpretation of the results of iron metabolism studies (serum iron, total serum iron binding capacity, iron transferrin saturation, ferritin level); evaluation of bone marrow punctate data.	1
12	- - Mastering the skills of interpreting the general analysis of blood and myelogram; mastering the method of transfusion of blood components and blood substitutes. - Evaluation of cytochemical data; mastering the skills of interpreting the data of X-ray examination of bones.	2
13	- - Preparation and writing of medical history	4
	Total	20

Individual tasks

Preparation and report of the abstract in a practical lesson; report at clinical conferences of departments; report on the patient's medical history in practice; writing abstracts, articles.

Discipline policy and values

To achieve the goals of training and successfully complete the course, it is necessary to join the work from the first day; attend lectures regularly; read the

material before its consideration in a practical lesson; do not be late and do not miss classes.

Students with special needs should meet with the teacher or warn him before the start of classes, at the request of the student it can be done by the head of the group. If you have any questions, please contact the teacher.

Assessment policy

Control methods

It is recommended to conduct practical classes with the inclusion of:

- 1) control of the initial level of knowledge;
- 2) survey of students on the topic of the lesson;
- 3) management of 1-2 patients with diseases and conditions that correspond to the subject of the lesson;
- 4) consideration of the results of additional research methods;
- 5) control of the final level of knowledge on test tasks.
- 6) Current control is carried out by the teacher of the academic group at the last lesson. Acceptance of software is carried out by the teacher of the academic group. Assessment is carried out according to the system: "excellent", "good", "satisfactory" and "unsatisfactory". The minimum number of points that a student must score for the current activity during the study of the section is 70 points, the maximum number of points - 120 points.
- 7) The independent work of students is assessed during the current control of the topic in the corresponding lesson.
- 8) Evaluation of student's individual tasks is carried out in the conditions of their implementation. Points (no more than 10) are added as incentive. The total amount of points for the current educational activity cannot exceed 120 points.
- 9) The test for the discipline in the fall semester is carried out by the teacher of the academic group in the last lesson.
- 10) Organization of final control - offset. The test itself is estimated from - 50 to - 80 points.

Credit:

1. Solving a package of test tasks, which includes basic test tasks "Krok -2". Evaluation criterion - 95-100% of correctly solved tasks, "passed - failed".
2. Assessment of the acquisition of practical skills (assessment criteria - "performed" or "failed").
3. Assessment of theoretical knowledge on the tickets drawn up at the department from the sections of the discipline, which were studied during the academic year, the criteria for assessing theoretical knowledge according to the table.

Discipline grade

The grade for the discipline is defined as the sum of points: the arithmetic mean of the points for 2 semesters during which the discipline was studied, which are translated into the 120-point ECTS scale. Then the number of points that the student received during the test is added to them.

The maximum number of points that a student can score for studying a

discipline is 200 points, including the maximum number of points for current educational activities - 120 points. The minimum score is 120.

Assessment of theoretical knowledge

Number of questions	«5»	«4»	«3»	Oral answer for question card that contain the theoretical part of the discipline	For each answer, the student receives from 10 to 16 points, which corresponds to: «5» - 16 points; «4» - 13 points; «3» - 10 points.
1	16	13	10		
2	16	13	10		
3	16	13	10		
4	16	13	10		
5	16	13	10		
	80	65	50		

Correspondence of estimates on a 200-point scale, four-point (national) scale and ECTS scale

Score on a 200 point scale	Score scale ECTS	Score for four-point (national) scale
180–200	A	Perfectly
160–179	B	Fine
150–159	C	Fine
130–149	D	Satisfactorily
120–129	E	Satisfactorily
Less 120	F, Fx	Unsatisfactorily

List of questions for differential credit

- Diabetes. Basic concepts.
- Type 1 and type 2 diabetes, modern methods of therapy.
- Acute and chronic complications of diabetes.
- Iodine deficiency diseases of the thyroid gland. Hypothyroidism and thyroiditis.
- Thyrotoxicosis. Thyroid cancer. Diseases of the thyroid gland.
- Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Hormonally active tumors of the adrenal glands.
- Diseases of the hypothalamic-pituitary system. Obesity. Diseases of the gonads.
- Hemophilia and thrombocytopenic purpura.
- Anemia.
- Acute leukemia.
- Chronic leukemias.
- Chronic obstructive pulmonary disease.
- Bronchial asthma.
- Pneumonia.
- Pleurisy.
- Infectious and destructive lung diseases.

- Respiratory failure.
- Gastroesophageal reflux disease.
- Dyspepsia.
- Chronic gastritis.
- Peptic ulcer of the stomach and duodenum.
- Celiac disease and other enteropathies.
- Inflammatory bowel disease. Nonspecific ulcerative colitis and Crohn's disease.
- Irritable bowel syndrome.
- Gallstone disease, chronic cholecystitis and functional biliary disorders.
- Chronic hepatitis.
- Cirrhosis of the liver.
- Chronic pancreatitis.
- Principles of evidence-based medicine.
- Diagnosis and treatment of diseases of the internal organs in the elderly ..
- Obesity and its consequences.

Grade from the discipline

The grade for the discipline is defined as the arithmetic mean of the points for the autumn and spring semesters, which are translated into a 120-point scale. Added to them is the number of points that the student received during the test.

The maximum number of points that a student can score is 200 points, the minimum is 120.

Grades "unsatisfactory" are given to students who were admitted to the test, but did not pass it and who are not admitted to the test.

Head of the Department
of Internal Medicine №3
and endocrinology,
d. med. n., professor

L.V. Zhuravlova