



**APPROVED  
EMD decision**

" 12 " 10 2021

Protocol No. \_\_\_\_\_

**Chairman of the EMC, Vice Rector,  
candidate of pedagogical sciences,  
associate professor Apezyova D. U.**

## **SYLLABUS by discipline**

### **B.3.2.2. ENDOCRINOLOGY**

For students of the educational program, higher professional education in the specialty 560001 "General Medicine" (5-year education) in the specialty "Doctor"

Type of study work	Total hours
course	3
Semester	5
Number of weeks	18
Credits	2
<i>The total complexity of the discipline</i>	60
Classroom/practical studies (PS)	36/24
Student Independent Work (SIW)	24
Forms of control	
current control	Testing, oral questioning, written test
Frontier control	Testing
Midterm	Testing
Final control	exam
Semester rating by discipline:	Point-rating system

### **Information about the teacher of the academic discipline**

Full Name	Knyazeva Valeria Georgievna
Post	teacher
Academic degree	Candidate of medical sciences
Academic title	-
Email address	-
Location of the department (address)	KR, Bishkek, st. Shabdan Baatyr 128, floor 2
Telephone	0777141xxx
Consultation hours	13.00-14.00

### **Characteristics of the academic discipline**

**The purpose of studying the discipline:** The purpose of the discipline is to form students' fundamental knowledge, skills and abilities in the specialty of endocrinology. The study of the discipline is aimed at the formation of the competencies of a doctor, ensuring the implementation of the main activities of a doctor, participation in the formation of relevant competencies, training of an endocrinologist who has a system of general cultural and professional competencies, capable and ready for independent professional activity, mainly in the conditions of: primary health care; urgent; ambulance, including specialized, medical care; as well as specialized, including high-tech, medical care. Endocrinology is a branch of medicine that studies the structure and function of the endocrine glands, which are also called endocrine glands. It is they who

produce special substances - hormones that have a significant impact on all body systems. The endocrinology course study specializes in the diagnosis, prevention and treatment of diseases of the endocrine system. Students study the activities of an endocrinologist, who controls the operation of this entire complex system, reveals violations in its functioning, and is engaged in the treatment and prevention of pathologies associated with the production of hormones. The doctor treats not only the diseases themselves, but also their consequences, for example, corrects the hormonal balance, takes measures to restore normal metabolism, and eliminates sexual dysfunction. Endocrinology is a field of medicine that studies the processes of biosynthesis and the mechanisms of action of hormones, the etiology, pathogenesis and clinical manifestations of both endocrine diseases proper and endocrine system disorders in other pathologies.

#### Discipline Prerequisites:

- Latin
- Biology with elements of ecology
- Chemistry
- General clinical biochemistry
- Histology, embryology, cytology
- Proped therapy

#### Postrequisites of the discipline:

- Faculty therapy
- Hospital therapy
- Fundamentals of Clinical Examinations in Internal Medicine
- Outpatient therapy
- Childhood diseases
- Fundamentals of Clinical Examinations in Pediatrics

#### Learning outcomes of the discipline according to the RO GPP

Studying the subject of endocrinology will contribute to the achievement of the RO of the PLO:

**RE-8:** interpret, analyze and evaluate data from clinical, laboratory and instrumental diagnostic methods, draw up a treatment plan, including emergency care, taking into account urgent and priority signs of the disease.

Achievement of RO-8 is realized through the acquisition of competencies by the graduate, i.e. his ability to apply knowledge, skills and personal qualities in accordance with the tasks of professional activity - PC-16, PC-17.

**PC-16** - is able and ready to use the algorithm for making a diagnosis (basic, concomitant, complications), taking into account the ICD, to perform basic diagnostic measures to identify urgent and life-threatening conditions.

**PC-17** is able and ready to perform basic therapeutic measures for the most common diseases and conditions in the adult population and children on an outpatient basis and in a hospital setting.

#### Content of the discipline

№№	Name of topics
1.	Diabetology (Diabetes mellitus)
2.	Introduction to endocrinology. Diabetes mellitus: classification, etiology, pathogenesis, clinic, diagnostics
3.	Treatment of diabetes.
4.	- Micro- and macrovascular complications of diabetes mellitus.
5.	- Coma in diabetes mellitus
6.	Diabetes. Classification, etiology, pathogenesis, clinic, diagnostics. Curation of a patient with diabetes mellitus
7.	Treatment of diabetes mellitus type 1 and 2. Lifestyle change. Principles of insulin therapy. Tableted antidiabetic drugs
8.	Diabetes. Self-control and learning in type 1 and type 2 diabetes. Calculation of insulin therapy. Calculation of nutrition by bread units
9.	Micro- and macrovascular complications of diabetes mellitus. Diabetic retinopathy, nephropathy, neuropathy. Features of coronary artery disease in diabetes mellitus. Arterial hypertension and diabetes mellitus.

10.	Other Endocrine Disorders in Adults
11.	Diseases of the thyroid gland. thyrotoxicosis syndrome. Etiopathogenesis, classification, clinic, diagnostics, methods of treatment. Syndrome of hypothyroidism. Iodine deficiency diseases. Epidemiology, etiopathogenesis, classification, clinic, diagnostics. Treatment. Prevention
12.	Diffuse toxic goiter. Clinic, diagnostics, differential diagnostics. Treatment.
13.	Hypothyroidism. Classification. Etiology. Pathogenesis. clinical manifestation. diagnosis and treatment
14.	Diseases of the thyroid gland. Thyroiditis.
15.	Iodine deficiency diseases. Epidemiology, clinical manifestations, prevention. Endemic goiter, etiopathogenesis, clinic, diagnosis, treatment. sporadic goiter.
16.	Diseases of the parathyroid glands. Hyperparathyroidism. Hypoparathyroidism. Etiopathogenesis, clinic, diagnostics, treatment.
17.	Hyperparathyroidism as part of endocrine syndromes
18.	Hypocorticism syndrome, etiopathogenesis, clinic, diagnosis and treatment.
19.	Chronic insufficiency of the adrenal cortex. Classification. Addison's disease, etiology, pathogenesis, clinic, diagnosis, treatment. Secondary insufficiency of the adrenal cortex. Acute insufficiency of the adrenal cortex. Diagnosis, treatment.
20.	Syndrome of hypercortisolism. Etiopathogenesis, clinic, diagnostics, differential diagnosis, principles of treatment.
21.	Disease and Itsenko-Cushing's syndrome. Etiopathogenesis, clinic, diagnostics, differential, treatment.
22.	Diseases of the hypothalamic-pituitary region. Etiopathogenesis, clinic, diagnostics, treatment.
23.	Acromegaly. Diabetes insipidus. Hypopituitarism. Clinic, diagnostics, differential diagnostics, treatment
24.	Obesity. Classification. Etiopathogenesis. Pathological changes in the internal organs, the main methods of treating obesity.
25.	Diseases of the hypothalamic-pituitary region. Growth disorders in children and adults. somatotropic insufficiency.
26.	Obesity. Epidemiology. Prevention. metabolic syndrome. Healthy lifestyle.

### List of main and additional literature:

#### Main literature:

Williams Textbook of Endocrinology. Shlomo Melmed., 2020

#### Additional literature:

1. Endocrinology: a guide for doctors / ed. V.V. Potemkin. - Moscow: MIA, 2013. - 776 p. Code 616.4 E 645 2 copies
2. Dreval A.V. Endocrinology: a guide for doctors / A.V. Dreval. - Moscow: GEOTARMEDIA, 2016. - 544 p. Code 616.4 D 73 1 copy.

#### Internet resources:

1. [https://drive.google.com/drive/u/2/folders/1iUdsijeLnQupD7\\_BJaGhA--D1mZA2yU](https://drive.google.com/drive/u/2/folders/1iUdsijeLnQupD7_BJaGhA--D1mZA2yU)
2. <http://e.lanbook.com/book/60072>
3. <http://www.studmedlib.ru/book/ISBN9785970436776.html>

### Monitoring and evaluation of learning outcomes

#### The content of the rating system for assessing student performance

The rating assessment of students' knowledge in each academic discipline, regardless of its total labor intensity, is determined on a 100 (one hundred) - point scale and includes current, boundary, intermediate and final control.

The distribution of rating scores between types of control is established in the following ratio (according to the table of the score-rating system of assessments):

Form of control				
current (CC)*	boundary control (BC)**	mid-term exams (MC)***	Final /exam (FE)	Discipline Rating (RD)
0-100 points	0-100 points	0-100 points	0-100 points	0-100 points, with the translation of points into a letter designation

Note:

\*  $TK(middle) = \frac{\sum_1^n \times point}{\sum_1^n}$ , where n is the number of types of classroom and extracurricular work of students in the discipline;

\*\* $PK(middle) = \frac{\sum_1^n credit \times point}{\sum_1^n credits}$ , where n is the number of modules (credits) in the discipline;

\*\*\* $ПК(middle) = \frac{\sum_1^n \times point}{\sum_1^n}$ , where n is the number of intermediate controls (2 controls per semester: in the middle and at the end of the semester) by discipline;

\*\*\*\*ИК – examination conducted at the end of the study of the discipline

;

\*\*\*\*\* $РД = \frac{TK_{ср} + PK_{ср} + ПК_{ср} + ИК}{4}$ , the final rating of the results of all types of control at the end of the discipline;

$GPA = \frac{\sum_1^n \times балл}{\sum_1^n}$  where, n is the number of disciplines in the semester (for the past period of study).

A student who has not passed the current, boundary and intermediate controls to the final control (exam) is not allowed.

**The current control** is carried out during the period of classroom and independent work of the student on time according to the schedule, at the end of the study of the discipline, the average score of the current control (CC) is calculated. *Forms of current control can be:*

- testing (written or computerized);
- performance of individual homework assignments, abstracts and essays;
- student's work in practical (seminar) classes;
- various types of colloquia (oral, written, combined, express, etc.);
- control of performance and verification of reporting on laboratory work;
- visiting lectures and practical (seminar, laboratory) classes;
- Incentive rating (up to 10 points).

Other forms of current monitoring of results are also possible, which are determined by the teachers of the department and recorded in the work program of the discipline.

**The frontier control** is carried out in order to determine the results of the student's development of one credit (module) as a whole. *Frontier control* should be carried out only in writing, at the end of the study of the discipline, the average score of boundary control (BC) is calculated. As forms of *frontier control* of the training module, you can use:

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

**Intermediate control (mid-term exams)** is carried out in order to check the completeness of knowledge and skills in the material in the middle and end of the semester (2 times per semester) of studying the discipline, by the end of the study of the discipline, the average score of intermediate control (PCsr) is calculated, *forms of intermediate control (mid-term exams) can be:*

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

**The final control** is carried out during the session, by conducting an exam, it can be carried out in the following forms:

- testing (including computer testing);
- written exam (ticketing system).

**Correspondence of the point-rating system of assessments used by the institute and the assessments of the European system for the transfer of credit units, labor intensity (ECTS)**

Grade						Criterion
System of letters	digital system	Traditional system	Points (%)	Scored points (max - 100)	Evaluation by discipline without an exam	
A	4	5	95-100	95-100	Credited/ passed	"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic and additional literature on the discipline
A-	3,67		90-94	90-94		"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic literature on the discipline, but is not familiar with additional literature
B+	3,33	4	85-89	70-89		"Good" - exhibited to a student who has shown a systematic and comprehensive knowledge of the educational material, able to independently replenish and update this knowledge in the course of training, performing practical tasks, familiar with the main literature on the discipline
B	3,0		80-84			"Good" is given to a student who has shown a systematic and comprehensive knowledge of the educational material, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
B-	2,67		75-79			"Good" - is given to a student who has shown the systematic nature of knowledge in the discipline, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
C+	2,33		70-74			"Satisfactory" - is given to a student who does not have a systematic nature of knowledge in the discipline, who is not capable of independently replenishing and updating knowledge in the course of further education, performing practical tasks with errors
C	2,0	3	65-69	50-69		"Satisfactory" - is given to a student who made mistakes in completing assignments, but who has the necessary knowledge to eliminate them under the guidance of a teacher
C-	1,67		60-64			"Satisfactory" - is set to a student who made errors in the performance of tasks, but who has the possible knowledge to eliminate them under the guidance of a teacher
D+	1,33		55-59			"Satisfactory" - is set to a student who made errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
D-	1,0		50-54			Satisfactory" - is given to a student who has made significant errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
FX	0,5	2	25-49	Less of 50	not credited/not passed	"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them
F	0		0-24			"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them, even under the guidance of a teacher

**Academic achievement requirements:**

Attendance by students of all classroom classes without delay is mandatory.

In case of absence, classes are worked out in the order established by the dean's office.

If there are three passes, the teacher has the right not to allow the student to attend classes until the issue is administratively resolved.

If the absence of classes is more than 20.0% of the total number of classes, the student automatically enters the summer semester.

**Note to the student:**

- ✓ regularly review lecture material;
- ✓ Do not be late and do not miss classes;
- ✓ work off missed classes if you have permission from the dean's office;
- ✓ Actively participate in the classroom (individually and in groups;)
- ✓ timely and fully complete homework assignments;
- ✓ submit all assignments within the time specified by the teacher;

- ✓ independently study the material in the library and at home;
- ✓ timely and accurately fulfill the tasks of the teacher, individual tasks for the IWS to achieve learning outcomes;
- ✓ to master the basic and additional literature necessary for the study of the discipline;
- ✓ performing tasks, the student should not copy or reproduce the work of other students, scientists, practitioners, plagiarism;
- ✓ develop their intellectual and oratory skills;

In case of non-compliance with the requirements of the Memo, the student will be penalized in the form of deducting points (one point for each violated item).

If the requirements of the Memo are fully met, the student is encouraged in the form of an additional 10 points to the final control in the discipline.

### **Academic Integrity, Conduct and Ethics Policy:**

- turn off your cell phone during class;
- Be polite;
- respect other people's opinions;
- formulate objections in the correct form;
- do not shout or raise your voice in the audience;
- independently complete all semester assignments;
- Eliminate plagiarism from your practice;

### **Methodical instructions.**

It is recommended to organize the time required to study the discipline as follows:

***When preparing for a practical lesson***, you must first read the abstract with the teacher's explanations.

***When performing exercises***, you must first understand what you want to do in the exercise, then proceed to its implementation.

***Literature work***. The theoretical material of the course becomes more understandable when books are studied in addition to the abstract. After studying the main topic, it is recommended to perform several exercises.

***Preparation for boundary and intermediate controls***. In preparation for the boundary and intermediate control, it is necessary to study the theory: the definitions of all concepts before understanding the material and independently do several exercises.

***Independent work of students*** is organized on all studied topics of each section. Independent work is carried out in the form of:

- work in Internet sites;
- work with basic and additional literature;
- fulfillment of written assignments;
- preparation of reports, abstracts, tables and posters on