

ЛД-21 ИИ

**Federal State Budgetary Educational Institution  
higher education  
"NORTH OSSETIAN STATE MEDICAL ACADEMY"  
Ministry of Health of the Russian Federation**

APPROVED

Rector of FGBOU VO SOGMA  
Ministry of Health of Russia

«17» April 2024 year

**THE WORKING PROGRAM OF THE DISCIPLINE  
"ENDOCRINOLOGY"**

main professional educational program of higher education - specialty program in the  
specialty 31.05.01 Medicine,  
approved on 17.04.2024

Form of study \_\_\_\_\_ full-time \_\_\_\_\_

The term for the development of OBOP VO \_\_\_\_\_ 6 \_\_\_\_\_

Department of Internal Medicine № 2

Vladikavkaz, 2024

When developing the work program of the discipline, the basis is based on:

1. Federal State Educational Standard of Higher Education in the specialty 31.05.01 Medicine, approved by the Ministry of Education and Science of the Russian Federation on August 12, 2020. №. 988.
2. The curriculum of OBOP VO in the specialty 31.05.01 Medicine  
ЛД-21-01-21ИИ  
ЛД-21-02-22ИИ  
ЛД-21-03-23ИИ  
ЛД-21-04-24ИИ, approved by the Academic Council of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia on April 17, 2024, protocol №. 6.
3. The work program of the discipline was approved at a meeting of the Department of Internal Medicine on March 25, 2024, protocol No. 8.
4. The work program of the discipline was approved at a meeting of the central coordinating educational and methodological council dated April 02, 2024, protocol №. 4.
5. The work program of the discipline was approved by the Academic Council of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia dated April 17, 2024, protocol №. 6.

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**Content of the work program**

1. name of the discipline;
2. a list of planned learning outcomes in the discipline, correlated with the planned results of mastering the educational program;
3. an indication of the place of discipline in the structure of the educational program;
4. the amount of discipline in credit units, indicating the number of academic or astronomical hours allocated for contact work of students with a teacher (by type of training) and for independent work of students;
5. the content of the discipline, structured by topics (sections) with an indication of the number of academic or astronomical hours allocated for them and types of training;
6. a list of educational and methodological support for independent work of students in the discipline;
7. fund of assessment tools for intermediate certification of students in the discipline;
8. a list of basic and additional educational literature necessary for mastering the discipline;
9. a list of resources of the information and telecommunication network "Internet" (hereinafter - the "Internet" network), necessary for mastering the discipline;
10. methodological instructions for students on the development of the discipline;
11. a list of information technologies used in the implementation of the educational process in the discipline, including a list of software and information reference systems (if necessary);
12. description of the material and technical base necessary for the implementation of the educational process in the discipline.
13. Introduction of educational activities using e-learning and distance learning technologies.

2. The list of planned learning outcomes in the discipline and the results of mastering the educational program

P / p No.	Competence number / index	Content of competence (or part of it)	Topic of the lesson (section)	Competence achievement indicators	Development results		
					Know	Be able to	Own
1	2	3	4	5	6	7	8
1.	OPK-4.	Able to use medical devices provided for by the procedure for the provision of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	Diseases of the pancreas. -Diseases of the thyroid gland. - Diseases of the adrenal glands. -Diseases of the hypothalamic-pituitary system.	ID-1 OPK-4 Is able to draw up a plan for laboratory and instrumental diagnostics.  ID-2 OPK-4 Owns the algorithm for the clinical examination of the patient.  ID-3 OPK-4 Owns the algorithm for the use of medical devices, provided for by the procedure for the provision of medical care.	principles of use and interpretation of the results of measurements and research with the use of medical devices, provided for by the procedures for the provision of medical care to the adult population in the "therapy" profile (stethophonendoscope, tonometer).	use medical devices provided for by the procedure for providing medical care to the adult population in the "therapy" profile (stethophonendoscope, tonometer)	a method for measuring blood pressure using a tonometer, a method for calculating heart rate and pulse; method of auscultation of the heart and lungs using a stethophonendoscope
2.	OPK-5	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Diseases of the pancreas. -Diseases of the thyroid gland. - Diseases of the adrenal glands. -Diseases of the	ID-1 OPK-5 Owns the algorithm of clinical, laboratory and functional diagnostics in solving professional problems. ID-2 OPK-5 Evaluates the	- the main indicators of the morphological and functional state of the population, - methods and rules of measurement and methods of assessment	-use and apply in practice all known methods for assessing the morphological and functional state of the human body	-methods for assessing the main morphological and functional indicators of the adult population and children to establish the existing disorders of the processes of growth and

			hypothalamic-pituitary system.	results of clinical, laboratory and functional diagnostics in solving professional problems. ID-3 OPK-5 Determines morphofunctional, physiological states and pathological processes of the human body			development
3.	OPK-7.	Able to prescribe treatment and monitor its effectiveness and safety	Diseases of the pancreas. -Diseases of the thyroid gland. - Diseases of the adrenal glands. -Diseases of the hypothalamic-pituitary system.	ID-1 OPK-7 provides effective, safe therapy based on the clinical guidelines of the Ministry of Health of Russia	clinical and pharmacological characteristics of the main groups of drugs and the rational choice of specific drugs in the treatment of major pathological syndromes	develop a treatment plan for the patient, taking into account the course of the disease, select and prescribe drug therapy	The main therapeutic measures for the provision of medical care for pathological conditions in therapy requiring inpatient care
4.	PC-2	Examination of the patient in order to establish a diagnosis	Diseases of the pancreas. -Diseases of the thyroid gland. - Diseases of	ID-1 PC-2 Collects complaints, anamnesis of life and illness of the patient and analyzes the information received	clinical picture; methods of direct examination of the patient, laboratory and instrumental diagnostics,	determine the patient's status: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination	skills: direct examination of the patient, the skills of interpreting the results of laboratory and instrumental studies,

			<p>the adrenal glands. -Diseases of the hypathalamic-pituitary system.</p> <p>ID-2 PC-2 Conducts a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interprets its results ID-3 PC-2 Substantiates the need and scope of laboratory examination of the patient ID-4 PC-2 Substantiates the need and scope of instrumental examination of the patient Diseases of the pancreas. -Diseases of the thyroid gland. - Diseases of the adrenal glands. -Diseases of the hypathalamic-pituitary system.ID-5 PC-2 Substantiates the need to refer the patient for consultations to specialist doctors</p>	<p>morphological analysis of biopsy, surgical and sectional material, schemes of the academic history of the disease.</p>	<p>of the patient, assess the state of Readiness to collect and analyze patient complaints, data from his anamnesis, examination results, laboratory, instrumental, pathological and anatomical and other studies in order to recognizing the condition or establishing the fact of the presence or PC-5 7 of the patient and decide on the need to provide him with medical care; make a preliminary diagnosis, outline the scope of additional studies, interpret the results of laboratory and instrumental research methods, morphological analysis of biopsy, surgical and sectional material, write a medical record of an outpatient and inpatient</p>	<p>morphological analysis of biopsy, surgical and sectional material, writing a medical history and an outpatient card</p>
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				<p>ID-6 PC-2 Analyzes the results of the patient's examination, justifies and plans the volume of additional studies if necessary</p> <p>ID-7 PC-2 Interprets the results of collecting information about the patient's disease</p> <p>ID-8 PC-2 Interprets the data obtained during laboratory examination of the patient</p> <p>ID-9 PK-2 Interprets the data obtained during instrumental examination of the patient</p>			
5.	6.	PC-3	<p>Diseases of the pancreas.</p> <p>-Diseases of the thyroid gland.</p> <p>- Diseases of the adrenal glands.</p> <p>-Diseases of the hypothalamic-pituitary system.</p>	<ul style="list-style-type: none"> <li>- Occupational diseases of dust etiology.</li> <li>- Occupational diseases caused by the influence of physical factors of the working environment.</li> <li>- Occupational diseases caused by</li> </ul>	<p>ID-1 PC-3 Draws up a plan for the treatment of the disease and the patient's condition, taking into account the diagnosis, the patient's age, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on</p>	<ul style="list-style-type: none"> <li>- the main types of drugs used in the treatment of occupational diseases of dust etiology</li> <li>- the main drugs, their international non-proprietary name, the rules for combining drugs with each other;</li> <li>- the rules for writing prescriptions and taking medications;</li> </ul>	<ul style="list-style-type: none"> <li>- prescribe appropriate drug therapy according to the diagnosis;</li> <li>- choose the best treatment option, prescribe drug therapy, taking into account the pharmacokinetics and pharmacodynamics of drugs, preventing their unwanted side</li> </ul>

				<p>exposure to chemical factors of the working environment.</p> <p>the provision of medical care, taking into account the standards of medical care</p> <p>ID-2 PC-3 Prescribes drugs, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>ID-3 PC-3 Prescribes non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>		<p>effects, write prescriptions (taking into account social rights to subsidized drugs);</p>
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### 3. Place of discipline in the structure of the educational program

The academic discipline Occupational diseases belongs to the compulsory part of Block 1 of the Federal State Educational Standard of Higher Education in the specialty 31.05.01 General Medicine

### 4. Discipline scope

No. No. p / p	Type of work	Total credit units	Total hours	Semester
				nine
				hours
1	2	3	4	5
1	<b>Contact work of students with teacher (total), including:</b>	-	48	48
2	Lectures (L)	-	14	14
3	Clinical Practices (CL)	-	34	34
4	<b>Student independent work (IWS)</b>	-	24	24
5	<b>Intermediate type appraisals</b>	credit (C)	-	zach
		exam (E)	-	-
6	<b>TOTAL: General labor intensity</b>	hours	72	72
		ZET	2	2

### 5. Content of the discipline

No./n	Semester number	The name of the topic (section) of the discipline	Types of educational activities (in hours)				Forms of monitoring progress
			L	PZ	CPC	Total	
1	2	3	4	5	6	7	8
1	IX	Etiology, pathogenesis, classification, clinic of diabetes mellitus.	2	5	3.5	10.5	C, T3, C3, Y3
2	IX	Diagnostics, treatment of diabetes mellitus	2	5	3.5	10.5	C, T3, C3, Y3
3	IX	Emergencies in Diabetology	2	5	3.5	9.5	C, T3, C3, Y3
4	IX	Diseases of the thyroid gland. Diffuse toxic shock. Subacute thyroiditis. Autoimmune thyroiditis.	4	5	3.5	12.5	C, T3, C3, Y3
5	IX	Diseases of the adrenal glands. Diseases of the adrenal cortex and medulla.	2	5	3.5	10.5	C, T3, C3, Y3
6	IX	Diseases of the hypothalamic-pituitary system. Obesity.	2	5	3	10	C, T3, C3, Y3
7	IX	Modular lesson.		5	3.5	8.5	C, T3, C3, Y3
<b>TOTAL:</b>			14	34	24	72	

**Note:** C - interview, TK - test tasks, SZ - situational tasks, UZ - educational tasks

### 6. The list of educational and methodological support for independent work of students in the discipline

No./n	Semester number	Name of educational and methodological development
1	IX	Tsabolova Z.T. A.B. Kusova Medical history writing scheme (endocrinology)

2	IX	About Z.T. Tsabolova, A.B. Kusova Thyroid disease
3	IX	Z.T. Tsabolova, A.B. Kusova Disease of the adrenal and pituitary glands
4	IX	Z. T. Tsabolova, A.B. Kusova Acromegaly
5	IX	Z. T. Tsabolova, A.B. Kusova EMERGENCY CONDITIONS IN ENDOCRINOLOGY
6	IX	Z. T. Tsabolova, A.B. Kusova HYPOTHYROIDISM SYNDROME
7	IX	Z. T. Tsabolova, A.B. Kusova COLLECTION OF PROBLEMS AND TESTS ON ENDOCRINOLOGY
8	IX	Z. T. Tsabolova, A.B. Kusova Diffuse toxic goiter
9	IX	Z. T. Tsabolova, A.B. Kusova Diabetes
10	IX	Z. T. Tsabolova, A.B. Kusova Hyperprolactinemia
11	IX	Z. T. Tsabolova, A.B. Kusova Adrenal insufficiency
12	IX	Z. T. Tsabolova, A.B. Kusova Methodical recommendations for the implementation of independent extracurricular work of students in the discipline "Endocrinology"

#### 7. Fund of assessment tools for intermediate certification of students in the discipline

No./n	List of competencies	No. semester	Indicator (s) evaluating	Evaluation criterion (s)	Grading scale	Name FOS
1	2	3	4	5	6	7
1	OPK-4 OPK-5 OPK-7 PC-2 PC-3	IX	cm. standard for assessing the quality of education, approved. By order of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia dated 10.07.2018. No. 264 / o	cm. standard for assessing the quality of education, approved. By order of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia dated 10.07.2018. No. 264 / o	see the standard for assessing the quality of education, approved. By order of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia dated 10.07.2018. No. 264 / o	Exam tickets for credit; Test tasks; Control tasks

8. The list of basic and additional educational literature necessary for mastering the discipline

	Name	Authors)	Year, place of publication	Number of copies		EBS name / Link in EBS
				in library	at the department	
1	2	3	4	5	6	7
<b>Main literature</b>						
1	Endocrinology: textbook	I. I. Dedov, G. A. Melnichenko, V. V. Fadeev.	M.: GEOTAR-Media, 2013	211	-	"Student advisor" <a href="http://www.studmedlib.ru/book/ISBN9785970425351.html">http://www.studmedlib.ru/book/ISBN9785970425351.html</a>
2.	Diabetes mellitus: a study guide	O. M. Smirnova and others	M.: GEOTAR-Media, 2011			
<b>additional literature</b>						
1.	Endocrinology: national guidelines	ed. I. I. Dedov	M.: GEOTAR-Media, 2008. -- 1072 p.	10	-	
2.	Diseases of the thyroid gland: textbook. manual for independent work of 4th year students of medical and preventive medicine and 6th year of pediatric faculties / comp.	OO Zangieva [and others].	Vladikavkaz: [b. and.], 2007. - 49 p.	78	25	
3.	Diabetes mellitus: study guide. allowance for independent work of a 4th year student of medical and preventive medicine and 6th year of	OO Zangieva [and others].	Vladikavkaz: [b. and.], 2008. - 84 p.	39	15	

	pediatric faculties					
4.	Visual endocrinology: trans. from English /	ed. G.A. Melnichenko. - 2nd ed.	M.: GEOTAR-Media, 2008 .-- 120 p.	8	-	
5.	Endocrine syndromes. Diagnostics and treatment [Text]	A. V. Dreval	M.: GEOTAR-Media, 2014 .-- 416 p. - 1 copy.	1	-	
6.	Emergency endocrinology: a textbook.	Mkrtumyan A.M., Nelaeva A.A.	Series "Library of a specialist doctor" -2010. - 128 s	-	-	"Student advisor" <a href="http://www.studmedlib.ru/book/ISBN9785970418369.html">http://www.studmedlib.ru/book/ISBN9785970418369.html</a>
7.	Acromegaly and gigantism.	Ametov A.S., Doskina E.V.	Ametov A.S., Doskina E.V. 2010 .-- 152 p.	-	-	

## 9. The list of resources of the information and telecommunication network "Internet" necessary for mastering the discipline

1 "Student advisor"

<http://www.studmedlib.ru/ru/book/ISBN9785970425351.html>

<http://www.studmedlib.ru/ru/book/970406779V0009.html>

<http://www.studmedlib.ru/ru/book/ISBN9785970429594.html>

<http://www.studmedlib.ru/ru/book/ISBN9785970418369.html>

<http://www.studmedlib.ru/ru/book/ISBN9785970412992.html>

2. Standards of medical care: <http://www.rspor.ru/index.php?mod1=standarts3&mod2=dbone>

3. State Register of Medicines: <http://www.drugreg.ru/Bases/WebReestrQuery.asp>

4. Russian Encyclopedia of Medicines (RLS): <http://www.rlsnet.ru>

5. Directory Vidal. Medicines in Russia: <http://www.vidal.ru>

6. Interregional Society of Evidence-Based Medicine Specialists.

<http://www.osdm.org/index.php>

[7.All-Russian educational Internet program for internist doctors- https://webinar-endo.ru/](http://www.all-russian-endo.ru/)

### Electronic versions of magazines:

Consilium medicum - <http://con-med.ru>

"Attending doctor" - <http://www.lvrach.ru>

"Diabetes mellitus" - and <http://endojournals.ru/index.php/dia> "Problems of endocrinology" - <http://www.medlit.ru/medrus/probe.htm>

"Clinical and experimental thyroidology" - <http://vidar.ru/Library.asp?fid=KET>

"Russian Medical Journal" - <http://www.rmj.ru>

"Directory of an outpatient doctor" - <http://con-med.ru/magazines/physician/>

"Difficult patient" - <http://www.t-pacient.ru>

"Pharmateca" - <http://www.pharmateca.ru>

## 10. Methodical instructions for students on mastering the discipline

Training consists of contact work (48 hours), including a lecture course (14 hours) and practical exercises (34 hours), and independent work (24 hours). The main study time is allocated for practical work on methods of diagnosis and treatment of diseases of the organs of the endocrine system.

When studying the discipline of endocrinology, it is necessary to use knowledge in the field of anatomy, normal and pathological physiology, propaedeutics of internal diseases, pharmacology, and to master the practical skills necessary in the activities of a medical doctor.

Practical exercises are carried out in the form of an oral interview, solving test tasks, demonstrating patients, and using visual aids, solving situational problems, answering test tasks, analyzing clinical patients.

In accordance with the requirements of the Federal State Educational Standard of Higher Education, active and interactive forms of conducting classes (classes-conferences, case-methods) are widely used in the educational process. The proportion of classes conducted in interactive forms is 20% of classroom studies.

Independent work of students implies preparation for practical exercises and includes preparation for current and intermediate control, writing a medical history of independent extracurricular work.

Work with educational literature is considered as a type of educational work in the discipline of endocrygology and is performed within the hours allotted for its study (in the CDS section).  
 Each student is provided with access to the library funds of the SOGMA and the department.  
 For each section of the discipline, guidelines for students and guidelines for teachers have been developed.  
 During the study of the discipline, students independently examine the patient, draw up a medical history and submit it for protection.  
 Writing an essay, educational medical history contribute to the formation of professional skills.  
 The student's work in a group forms a sense of teamwork and sociability.  
 Teaching students helps them develop the skills of communicating with the patient, taking into account the ethical and deontological characteristics of pathology and patients. Independent work with patients contributes to the formation of deontological behavior, accuracy, discipline.  
 At the end of the study of the discipline Endocrinology, knowledge control is carried out using test control and an oral interview on tickets.

**11. The list of information technologies used in the implementation of the educational process in the discipline:**

Microsoft Office  
 PowerPoint;  
 Internet exploer

**12. Description of the material and technical base necessary for the implementation of the educational process in the discipline**

The material and technical base of the department is represented by: KB SOGMA, GBUZ RED of the Ministry of Health of the Republic of North Ossetia-Alania.

The total area of the educational and laboratory base of KB SOGMA is 71m<sup>2</sup>, including 33m<sup>2</sup> - study rooms, 6m<sup>2</sup> - educational and auxiliary, assistant - 8m<sup>2</sup>, office of the head of the department - 12 m<sup>2</sup>. This fund includes 2 study rooms. The total area of the educational and laboratory base of GBUZ RED RNO-Alania is 12 m<sup>2</sup>. Equipment of training rooms (laboratories): 3 classrooms (satisfactory condition), 25 desks 80 chairs, (satisfactory condition). Wardrobes-10 pieces, tables- 7 pieces, a curbstone-6 pieces, an office chair - 4 pieces, a metal hanger-1 piece.

No. / P	equipment identification	number	Technical condition
1	2	3	4
<b>Special equipment</b>			
1	Computers	2	1 satisfactory condition, 1 needs replacing
2	Monoblock	2	2 satisfactory condition,
3	Notebook	3	2 satisfactory condition 1 needs replacing
4	Projector	four	The condition is satisfactory
5	Copier technology	four	3 satisfactory condition 1 needs renovation
6	ECG machine	one	The condition is satisfactory
7	Pipette 1-channel variable	one	The condition is satisfactory
8	Tripod screen	one	The condition is satisfactory
9	Infrared thermometer	one	The condition is satisfactory

<b>Phantoms</b>			
10	-		
<b>Dummies</b>			
11	-		
<b>Tables</b>			
12	Thematic tables	12	The condition is satisfactory

### **13. Conducting educational activities using e-learning and distance learning technologies.**

In the context of the introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection and other force majeure events that do not allow full-time training, it is possible to study this discipline or part of it using e-learning and distance educational technologies.

Teaching the discipline in the above situations will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various tasks. When conducting training sessions, monitoring progress, as well as intermediate certification of students, platforms of the electronic information and educational environment of the academy and / or other e-learning systems recommended for use in the academy, such as Moodle, Zoom, Webinar, etc. the form of audio and video files, "live lectures", etc. Conducting seminars and practical classes is possible online, both in synchronous and asynchronous modes. Seminars can be held in the form of web conferences.

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\_\_\_\_\_ O.V. Remizov  
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**THE WORKING PROGRAM OF THE DISCIPLINE**

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main professional educational program of higher education - specialty program in the  
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Form of study \_\_\_\_\_ full-time \_\_\_\_\_

The term for the development of OBOP VO \_\_\_\_\_ 6 \_\_\_\_\_

Department of Internal Medicine № 2

Vladikavkaz, 2024