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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY

Director of the Institute of Therapy (Internal Medicine) and Instrumental Diagnostics

_____ / Nevzorova V.A
"14th" of April 2025

SUBJECT GUIDE FOR TEACHERS AND STUDENTS FOR

Б1.О.46 Endocrinology

(Name of discipline)

Specialty	**31.05.01 General Medicine for international students (in English)** (code, name)
Degree	Specialist's degree
Profile	02 "Healthcare" (in the field of providing primary health care to the population in medical organizations: polyclinics, outpatient clinics, inpatient/outpatient facilities of the municipal health care system)
Mode of study	**Full-time**
Period of mastering the BEP	**6 years** (nominal length of study)
Institute	of Therapy (Internal Medicine) and Instrumental Diagnostics

Vladivostok, 2025

Subject guide for teachers and students for **Б1.О.46 Endocrinology** is based on:

1) Federal State Educational Standard of Higher Education for the specialty approved by the Order No. 988 of Ministry of Science and Higher Education of the Russian Federation dated August 12, 2020.

2) Curriculum for the 31.05.01 General Medicine for international students (in English), profile 02 "Healthcare" (in the field of providing primary health care to the population in medical organizations: polyclinics, outpatient clinics, inpatient/outpatient facilities of the municipal health care system), approved by the Academic Council of FSBEI HE PSMU of the Ministry of Health of Russia, Report No. 8/24-25 dated March 31, 2025.

Subject guide for teachers and students for **Б1.О.46 Endocrinology** were developed by the writing team of the Institute of Therapy (Internal Medicine) and Instrumental Diagnostics of the FSBEI HE PSMU of the Ministry of Health of Russia, under the guidance of the director of the Institute, Doctor of Medical Sciences, Professor Nevzorova V.A.

Developed by:

Director of the Institute	Doctor of Medical Sciences, Professor	Nevzorova V.A
(position held)	(academic degree, academic title)	(full name)
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1. GENERAL PROVISIONS

Subject guide for **Б1.О.46 Endocrinology** is a set of recommendations and explanations that facilitate to optimal organization of mastering this discipline.

Regular analysis of lecture materials and work with end-of-the-text questions are necessary for better understanding of the material and systematization of knowledge of **Б1.О.46 Endocrinology**. Particular attention should be paid to emerging questions, confusing terms, and conflicts of points of view during the independent review of the lecture material. If necessary, a student should contact the teacher for advice. Lecture material streamlines students' thinking, while practical classes provide deeper insight into the material of the discipline.

Special attention should be paid to the content of the main provisions and conclusions, explanation of phenomena and facts, and clarification of the practical application of theoretic aspects of topic when preparing for a practical class. During this process students should aim to understand and remember the main provisions of the material under consideration, examples provided, as well as understand the illustrative material.

Collections of assessment tools are used to organize independent study of topics of **Б1.О.46 Endocrinology**.

Independent work of students is facilitated by the following:

1. availability and accessibility of the necessary educational and reference material;
2. a system of regular quality control of completed independent work;
3. availability of teacher's advice.

Subject guides for self-study are presented as literary sources. Subject guides for independent work of students include a list of library resources of the educational institution and other materials accessible to students.

Independent work is a type of in-person extracurricular work of teachers and students of **Б1.О.46 Endocrinology**. Control of independent work is conducted by the leading teacher. Evaluation of independent work results is taken into account when conducting interim examination of students throughout the **Б1.О.46 Endocrinology** course.

Continuous assessment during **Б1.О.46 Endocrinology** course is implemented in order to check indicators of achieving competencies, to stimulate students' academic work, and improve methods of mastering new knowledge. Continuous assessment during **Б1.О.46 Endocrinology** course is conducted during the semester to assess all types and sections of the academic discipline that encompass the competencies developed by the discipline: classroom questioning, conducting discussions, working with tests, preparing reports. Continuous assessment of students' knowledge and results of their preparation for practical classes is conducted during every class session.

Interim assessment aims to determine the level of mastery of competency indicators. It is conducted in the test format after the student has mastered all sections of **Б1.О.46 Endocrinology** and takes into account learning outcomes for all types of student work over the entire period of mastering **Б1.О.46 Endocrinology** course.

Time allotted for interim assessment is indicated in the schedule.

Assignments given during practical classes, as well as assignments aimed to prepare students for continuous and interim assessment, are included in the collection of assessment tools for **Б1.О.46 Endocrinology**. If necessary, students should contact the teacher for advice. It is necessary to thoroughly think over questions that need clarification before seeking teacher's advice.

2. SUBJECT GUIDES FOR LECTURE CLASSES

Table 1. Subject Guides for **Б1.О.46 Endocrinology** Lectures

Topic No.1 Introductory lecture. Obesity. Epidemiology, etiology, pathway, clinical picture, classification, principles of treatment. Metabolic syndrome	
Duration of the lecture (in academic hours):	2
Purpose of the lecture: 1. tell students about epidemiology, ethiology, pathway, clinical picture, classification, principles of treatment; 2. define diagnosis of obesity, different type of obesity according to contemporary classification, the most common complications and obesity-related consequences; 3. examine methods of screening and differential diagnosis of obesity, the new management strategy of obesity.	
Lecture plan, order of presentation of its sections: - The definition of the obesity - The obesity epidemic - Epidemiology - Classification of the obesity - The diagnosis of obesity - The complications of the obesity - The definition of the metabolic syndrome (or Reaven's Syndrome or Syndrome X). The principles of pathogenetic therapy of obesity.	
Recommended literature 1. Edward C. Hsiao; David G. Gardner. Greenspan's Basic & Clinical Endocrinology10th edition, https://accessmedicine.mhmedical.com/book.aspx?bookid=2178.	
Topic No.2 Diabetes Mellitus. Epidemiology, etiology, pathogenesis, clinical manifestation, classification. Diagnostic criteria	
Duration of the lecture (in academic hours):	2
Purpose of the lecture: 1. tell students about epidemiology, etiology, pathogenesis, clinical manifestation, classification, and diagnostic criteria of diabetes mellitus; 2. define most common types of diabetes such as DM type 1 and type 2 and define other types like MODY diabetes, LADA diabetes, monogenic diabetes, gestational diabetes mellitus; 3. examine the methods of screening and differential diagnosis of different types DM.	
Lecture plan, order of presentation of its sections: - The principals of carbohydrate metabolism - Definition of diabetes mellitus - Diagnosis of diabetes - Type 1 diabetes characteristics - LADA diabetes - Type 2 diabetes characteristic - Differential diagnosis of diabetes types 1 and 2 - Monogenic diabetes - Gestational diabetes mellitus	
Recommended literature 1. Edward C. Hsiao; David G. Gardner. Greenspan's Basic & Clinical Endocrinology10th edition, https://accessmedicine.mhmedical.com/book.aspx?bookid=2178., chapter 17.	

2. Maxine A. Papadakis, Stephen J. McPhee. Quick Medical Diagnosis & Treatment 2024 https://accessmedicine.mhmedical.com/searchresults.aspx?q=Quick+Medical+Diagnosis+%26+Treatment+2024 ; Diabetes Mellitus T1, T2, gestational DM.

3. SUBJECT GUIDES FOR PRACTICAL CLASSES

Table 2. Subject Guides for Practical **Б1.О.46 Endocrinology** Classes

Topic No.1 Obesity. Epidemiology, etiology, pathway, clinical picture, classification, principles of treatment. Metabolic syndrome	
Duration of the practical class (in academic hours):	4
Purpose of the practical class: 1. consolidate acquired knowledge on endocrine system and obesity; 2. during the discussion, outline main types of obesity, most common complications and obesity-related consequences; 3. thoroughly go over diagnosis, management, and prevention of obesity; 4. develop skills necessary to identify obesity, interpret results of laboratory and other diagnostic tests; algorithms of clinical diagnosis and treatment; skills of using correct medications in the treatment, rehabilitation, prevention and of obesity.	
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, medical equipment and tools for patient examination, and subject guides for the discipline.	
Independent work of the student: writing a research paper, working with study materials, and preparation of a report on the lecture.	
Methods of evaluation of acquired knowledge and skills: reviewing the reports, conducting discussions, classroom questioning, tests.	
Recommended reading: 1. Edward C. Hsiao; David G. Gardner. Greenspan's Basic & Clinical Endocrinology10th edition, https://accessmedicine.mhmedical.com/book.aspx?bookid=2178. 2. Peter Igaz. Hormonal Diseases. A Guide for the Layperson. https://link.springer.com/book/10.1007/978-3-031-44494-4 3. Maxine A. Papadakis, Stephen J. McPhee. Quick Medical Diagnosis & Treatment 2024 https://accessmedicine.mhmedical.com/searchresults.aspx?q=Quick+Medical+Diagnosis+%26+Treatment+2024 Supplementary reading: 1. Terry F. Davies. A case-based guide to clinical endocrinology, third edition. https://link.springer.com/book/10.1007/978-3-030-84367-0 2. National institutes of health national heart, lung, and blood institute north american association for the study of obesity. The practical guide identification, evaluation, and treatment of overweight and obesity in adults. https://www.nhlbi.nih.gov/files/docs/guidelines/prctgd_c.pdf	
Topic No.2 Diabetes Mellitus. Epidemiology, etiology, pathogenesis, clinical manifestation, classification. Diagnostic criteria. Differential diagnosis	
Duration of the practical class (in academic hours):	4
Purpose of the practical class: 1. consolidate acquired knowledge on diabetes; 2. during the discussion, outline the main types of diabetes; 3. thoroughly go over diagnosing different types of DM; 4. study screening and differential diagnosis of DM;	

5. develop skills necessary to identify diabetes, interpret the results of laboratory and other diagnostic tests; algorithms for clinical diagnosis different types diabetes.
Practical classes requirements: classrooms equipped with multimedia equipment, blackboards, medical equipment and tools for patient examination, and subject guides for the discipline.
Independent work of the student: writing a research paper, working with study materials, and preparation of a report on the lecture.
Methods of evaluation of acquired knowledge and skills: reviewing the reports, conducting discussions, classroom questioning, tests.
Recommended reading: 1. Edward C. Hsiao; David G. Gardner. Greenspan's Basic & Clinical Endocrinology10th edition, https://accessmedicine.mhmedical.com/book.aspx?bookid=2178., chapter 17. 2. Maxine A. Papadakis, Stephen J. McPhee. Quick Medical Diagnosis & Treatment 2024 https://accessmedicine.mhmedical.com/searchresults.aspx?q=Quick+Medical+Diagnosis+%26+Treatment+2024 ; Diabetes Mellitus T1, T2, gestational DM. Supplementary reading: 1. Terry F. Davies. A case-based guide to clinical endocrinology, third edition. https://link.springer.com/book/10.1007/978-3-030-84367-0 2. Sanjay Bhadada • Liza Das • Rimesh Pal Editors. Diagnostic Protocols in Endocrinology. 3. Peter Igaz. Hormonal Diseases. A Guide for the Layperson. https://link.springer.com/book/10.1007/978-3-031-44494-4 4. Guideline by ADA. Standards of care DM (2023) 5. Guideline by WHO Diagnosis and Management of Type 2 Diabetes /https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

4. GUIDELINES FOR CONTINUOUS AND INTERIM ASSESSMENT

Table 3. Guidelines for Conducting Continuous and Interim Assessment during **Б1.О.46 Endocrinology** Course

Type of assessment	Assessment format
Continuous assessment	- conducting and evaluating oral quizzes during practical classes; - assessment and evaluation of completion and results of assignments given during practical classes; - assess and evaluate completion and results of individual assignments and exam tasks given during practical classes; - assessment and evaluation of lecture notes quality.
Interim certification	is conducted in test format (answering interview questions and working with case studies); it allows to assess the development of students' competencies correlating with types of professional activity.

5 ASPECTS OF THE IMPLEMENTATION OF THE COURSE FOR STUDENTS WITH DISABILITIES AND SPECIAL NEEDS

5.1. Availability of accessible environment

For students with disabilities and special needs, if a written application is submitted, lectures and practical classes are carried out taking into account health limitations, individual capabilities and medical status (hereinafter referred to as individual characteristics) of the student. Compliance with the following general requirements is ensured: teaching aids for collective and individual use

are provided, required technical assistance is provided by an assistant, buildings and premises where lectures and practical classes are taking place meet accessibility requirements, other arrangements lack of which makes it impossible or difficult to master the discipline are made.

5.2. Compliance with general requirements

When lectures and practical classes are carried out at the written application of the student, the following general requirements are met: lectures and practical classes for students with disabilities and special needs take place at the same location as for students who do not have disabilities, if this does not cause difficulties for students; an assistant (assistants), who provide(s) students with the necessary technical assistance taking into account individual characteristics of the student, is (are) provided; necessary teaching aids are provided, taking into account individual characteristics of the student.

5.3. Availability of the internal policies and procedures of FSBEI HE PSMU of the Ministry of Health of Russia to students with disabilities in a form accessible to them.

All internal policies and procedures of FSBEI HE PSMU of the Ministry of Health of Russia concerning the discipline are made available to students with disabilities in a form accessible to them.

5.4. Increase in the duration of interim assessment of students with disabilities and special needs in relation to the established duration

Format of the interim assessment of academic performance within the scope of the discipline for students with disabilities and special needs is selected taking into account individual characteristics (orally, by writing on paper, by typing on a computer, as a test, etc.). The duration of the interim assessment in relation to the established duration is increased at the written application of the student with disabilities. Time limit for the student's preparation for the test is increased by at least 0.5 hours

6. STAFFING REQUIREMENTS OF THE DISCIPLINE

Academic teaching personnel that ensure the implementation of the discipline education process meet the requirements of the Federal State Educational Standard of Higher Education for the 31.05.01 General Medicine for international students (in English) specialty; list of the aforementioned personnel is available on the website of the educational organization.