

Odessa National Medical University
Medical faculty
Department of internal medicine №1 with cardio-vascular pathology

Syllabus course
Endocrinology

Volume	60 hours (2 credits)
Semester, Year of study	VII - VIII 4
Days, time, location	Monday– Friday 4–6 academic hours, from 08.30 till 13.30 Odessa Regional Clinical Hospital, Zabolotnogo str. 26, Odessa, 65025
Teacher(-s)	<p>Head of the department: Karpenko Yurii Ivanovych, DM, professor, Honored doctor of Ukraine, head of the Regional Cardiosurgical Center «Odessa Regional Clinical Hospital»</p> <p>Professors of the department: Hendeleka Hryhorii Fedotovych, DM, professor, Levchenko Olena Mykhailivna, DM, professor.</p> <p>Associate professors: Savelieva Olha Valeriivna, DM; Vlasenko Oleksandr Ivanovych, DM, Kryzhanovskyi Yurii Mykolaiovych, DM; Pavlovska Kateryna Mykolaiivna, DM; Potapchuk Oleksandr Vasylovych, DM, Cherniavskyi Viktor Hennadiiovych, DM.</p> <p>Assistants: Petrosian Olena Vitaliivna; Alavatska Tetiana Vasylivna, Bendeberia Mariia Andriivna, Blikhar Olena Volodymyrivna, Zhaldak Olha Yuriivna, Zorina Yevheniia Oleksandrivna, Kravtsova Kateryna Volodymyrivna, Mariakhina Yelyzaveta Yuriivna, Riabinina Anna Hennadiivna, Stepanov Yevhen Anatoliiovych, Sukhina Yuliia Oleksandrivna, Chukitova Dina Yakivna/</p>
Contact Number	+38050 336 06 12 +380 95 279 28 52 (Head of the educational part)
E-mail	vnutrimed1@onmedu.edu.ua
Workplace	Odessa Regional Clinical Hospital 7 floor: department of internal medicine №1 with cardiovascular pathology course: room №№ 1, 2, 3 (assistant), 4, 5, 6, 7, 8; lecture classes (right side of hospital (administrative building) : rooms, №№ 1,2. 6 floor: room №10.
Consulting	<p><i>Direct consultations:</i> Monday-Friday, from 14.30 till 16.00, Saturday from 09 am till 1 pm.</p> <p><i>Online-consultations:</i> Monday-Friday from 9 am till 4 pm (the teacher of the group after the classes determined the time and</p>

	number of students who can work off his academic debt and get advice).
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COMMUNICATION

Offline in the classrooms of the department, online within *Microsoft Teams*, in some rare cases– through *ZOOM* and in *Viber*-groups.

THE COURSE ANNOTATION

The subject of the discipline «Endocrinology» is the study of prevention, diagnosis and treatment of diseases of the endocrine system.

Prerequisites:

Discipline of Internal medicine is based on the student`s knowledge of propaedeutic of the internal medicine, pediatric propedeutics, general surgery and basic disciplines (i.e. human anatomy and pathomorphology, physiology and pathophysiology, microbiology, virology and immunology and pharmacology).

Course post-requisites: the acquired knowledge, skills, abilities and competence is the basis for continuing the study of endocrinology in the 6th year and is the basis for further postgraduate education.

The purpose of this course: to prepare a specialist who is able to carry out professional activities, applying the knowledge, skills and abilities gained in general and professional training for a specific list of symptoms, syndromes and emergency conditions in Endocrinology that require special tactics for managing patients, laboratory and instrumental examinations, medical manipulations to solve tasks and problems in the field of medicine, health care and further education.

The objectives of the discipline are to acquire the following skills, abilities and competencies, namely:

1. Conduct surveys and clinical examination of patients with major endocrine diseases and analyze their results;
2. Determine the etiological and pathophysiological factors of the most common diseases of the endocrine system;
3. Analyze a typical clinical picture, identify clinical variants and complications of the most common endocrine diseases;
4. Establish an initial diagnosis of the most common endocrine diseases;
5. To prescribe laboratory and instrumental examinations of patients with the most common endocrine diseases and their complications;
6. Based on the assessment of the results of laboratory and instrumental examinations, carry out a differential diagnosis, justify and establish a clinical diagnosis of the most common endocrine diseases;
7. Determine the necessary mode of work and rest in the treatment of the most common endocrine diseases;
8. Determine the diet recommendations in the treatment the most common endocrine diseases;
9. Determine the basics of treatment of the most common endocrine diseases;
10. Prescribe treatment for the most common endocrine diseases;

11. Determine the tactics of providing emergency medical care based on the diagnosis of an emergency condition and provide emergency medical care based on the diagnosis of an emergency condition;
12. Conduct the primary and secondary prevention the most common endocrine diseases;
13. Assess the prognosis and ability to work of patients with the most common endocrine diseases;
14. Carry out medical manipulations.
15. Keep medical documentation.
16. Comply with the requirements of ethics, bioethics and deontology in their professional activities

Expected results:

As a result of mastering the content of the discipline "Endocrinology", the student have:

- to know:

1. Etiology, risk factors for the development and progression of the endocrine system diseases.
2. Basic principles of treatment of the endocrine system diseases, which are based on the principles of evidence-based medicine.
3. Basics of primary and secondary prevention of endocrine system diseases.
4. Basics of clinical pharmacology of drugs used in the treatment of the endocrine system diseases.

- to be able to:

1. Communicate with the patient and his/her relatives, carry out a clinical examination of the patient with endocrine system diseases, namely, collect data about the patient's complaints, medical history, life history.
2. Estimate information on the diagnosis based on the results of laboratory and instrumental examinations, in particular, determine the list of necessary laboratory and instrumental studies and evaluate their results.
3. Distinguish the leading clinical symptoms or syndromes. Establish the most probable or syndromic diagnosis. Assign laboratory and instrumental examination of the patient.
4. Carry out differential diagnosis of diseases. Establish an initial and final diagnosis.
5. Determine the principles of treatment of diseases, life style recommendations.
6. Diagnose emergency condition.
7. Determine tactics and provide emergency medical care.
8. Perform medical procedures.
9. Conduct an examination of the ability to work.
10. Maintain medical records.

Description of the course:

Forms of study

The course of study of the discipline "Endocrinology" in the 4th year consists of lectures - 10 hours, practical classes (PC) - 30 hours, the organization of independent students work (ISW) - 20 hours.

Methods of education: the organization of PC from the discipline "Endocrinology" is aimed at making the student a participant in the process of providing medical care to the patient from the moment of their hospitalization, examination, diagnosis, treatment until discharge from the hospital, with the provision of conditions for mastering professional practical skills; the skill of working in a team of the process of medical care; and to form the student's understanding of the level of training

- on the 1st PC of the corresponding section, the student is provided with a detailed work plan, which includes: a list of studies that the student must understand; algorithms for examinations and diagnosis, treatment, prevention in accordance with the standards of evidence-based medicine; a list of thematic patients for supervision during the study of the discipline; determining the time for the report of the patient's medical history in the study group, at clinical rounds, practical conferences - the student must supervise patients with diseases and conditions in accordance with the plan of the PC; supervision of a case patient provides for: 1) detailed observation of the patient, conducting a survey on organs and systems, studying the anamnesis of diseases and life; 2) carrying out a physical examination of the patient to determine the main symptoms and syndromes of diseases; 3) analysis of laboratory and instrumental examination data; 4) the formulation of the diagnosis; 5) the appointment of treatment with the completion of the instruction list of appointments; 6) determination of primary and secondary prevention; 7) report of the results of examination of the patient in the study group, analysis under the guidance of a teacher and with the participation of a team of students of the group of correct diagnosis, differential diagnosis, prescribed examination, treatment, assessment of prognosis, prevention; if it is not possible to provide supervision of thematic patients on the subject of PC, students fill out the educational case history using the bank of thematic patients of the department - on the PC, students are recommended to keep protocols in which it is necessary to enter brief information about the patients examined during the PC, diagnosis, examination plan and prescribed treatment, which are provided to the teacher for control.

Content of educational discipline

Topic 1: Diabetes mellitus: classification, etiology, pathogenesis, symptoms and signs, diagnosis

Topic 2 Treatment of type 1 and type 2 diabetes mellitus.

Topic 3: Chronic complications of diabetes. Features and treatment of diabetes mellitus in surgical patients and during pregnancy

Topic 4: Emergencies in diabetes mellitus.

Topic 5: Iodine deficiency diseases of the thyroid gland. Signs of an endemic area. Symptoms and signs, diagnosis, prevention and treatment. Thyroid cancer. Classification, symptoms, diagnosis, treatment. Diseases of the parathyroid glands.

Topic 6: Thyroiditis. Classification, diagnosis, symptoms, treatment. Violation of the functional state of the thyroid gland (thyrotoxicosis and hypothyroidism: forms, diagnosis, treatment).

Topic 7: Diseases of the adrenal glands. Chronic insufficiency of the adrenal cortex. Etiology, pathogenesis, symptoms, diagnosis, prevention and treatment. Hormone-producing adrenal tumors.

Topic 8: Disease of the hypothalamic-pituitary system. Diseases of the gonads.

Recommended literature list

Main

1. Essential Endocrinology and Diabetes (Essentials) 7th Edition, Wiley-Blackwell; 7th edition (June 1, 2021), 336 pages
2. MCQs in Endocrinology and Diabetes SCE: A Complete Explanation For Competitive Examination, Independently published (August 1, 2021), Independently published (August 1, 2021)
3. Diabetes and Endocrinology: Essentials of Clinical Practice, Momentum Press (March 24, 2021), 337 pages

Additional:

1. Paediatric Endocrinology and Diabetes (Oxford Specialist Handbooks in Paediatrics) 2nd Edition, Oxford University Press; 2nd edition (May 10, 2020), 480 pages
2. Clinical Endocrinology and Diabetes at a Glance 1st Edition, Wiley-Blackwell; 1st edition (April 17, 2017), 160 pages
3. Oxford Textbook of Endocrinology and Diabetes 3e 3rd Edition, Oxford University Press; 3rd edition (November 13, 2021), 2656 pages
4. Clinical Atlas in Endocrinology and Diabetes: A Case-Based Compendium 1st Edition, Jaypee Brothers Medical Publishers (P) Ltd.; 1st edition (April 30, 2016), 450 pages

Information resources

1. <https://www.thyroid.org>
2. <https://www.aace.com/>
3. <https://www.diabetes.org/>
4. <https://www.esa-hormones.org/publications/guidelines/>

Information Support:

Electronic library ONMedU: link to embedded methodological developments of lectures and Practical lessons, methodological recommendations.

ONMedU repository: scientific journals, thesis abstracts.

Assessments:

Monitoring methods:

For mastering each topic of the section, the student receives an assessment on a 4-point (traditional) scale, all types of work provided by the methodological development for studying the topic. At the end of the study of the discipline "Endocrinology", the current progress is calculated as an average of all student assessments obtained by the traditional scale, rounded to two (2) decimal places.

Forms and methods of final control:

Final standings in the form of control is carried out after studying all subjects sections of discipline "Endocrinology".

Students who have attended all the classroom classes provided for by the program of the discipline "Endocrinology", have to complete the entire volume of ISW (workbooks for each topic are available) and have an average score for current educational activities of at least 3.00 to be admitted to the test.

The credit form is standardized and includes control of theoretical and practical training.

How will be carried out the knowledge assessment (distribution of points) of applicants for higher education?

The mark in the discipline "Endocrinology" is calculated as follows: a 4-point scale traditional first calculated the average score as the average of two components: the average current point as the average of all current ratings.

The average score in the discipline is transferred to the traditional assessment in the discipline on a 4-point scale and is regarded as the ratio of this arithmetic mean to the percentage of mastering the required amount of knowledge in this subject.

Conversion of the traditional assessment in a discipline on a multi-point scale: performed by the information and computing center of the university.

Average score by discipline	The ratio of the student's average score in the discipline to the maximum possible value of this index	Assessment from discipline on a 4-point scale (Traditional assessment)
4,45 – 5,0	90-100%	5
3,75 – 4,44	75-89%	4
3,0 – 3,74	60-74%	3

Independent students work (ISW)

Includes pre-class and extra-class training of students; work in the departments of the hospitals, including in laboratories and the department of functional diagnostics, interpretation of laboratory and instrumental examinations in case of internal pathology in extracurricular time; learning practical skills and working with patients; individual ISW (presentation at a scientific and practical conference of the patient, writing articles, reporting an essay at a practical lesson, participating in the work of a student circle, taking part in the Olympiad on discipline, etc.).

The teachers of the department provide the opportunity to carry out the ISW and during the PC and the exam they monitor and evaluate its implementation. Additionally, control over the implementation of the ISW is carried out when checking the report on the implementation of the ISW in the form of a workbook.

Expectations of course

Deadline and recompilation policy: The curriculum of ONMedU provides for the full implementation of the curriculum in the discipline "Endocrinology". If all conditions are met - the student receives a "credit"

Academic Integrity Policy:

When working on writing a medical history, essays, preparing reports, etc., it is not permissible to violate academic integrity. When using Internet resources and other sources of information, the student must indicate the source used during the tasks.

All written works are checked for plagiarism and accepted for evaluation with correct textual borrowings not more than 20%.

If plagiarism is detected, the student receives an unsatisfactory grade for the task and must re-complete the task.

Write-offs during testing and exam are prohibited (including using mobile devices).

Attendance and lateness policy

Attendance of classes (PC, lectures) is a mandatory component for assessing the completeness of the discipline. For objective reasons (for example, illness, epidemic circumstances, international internship) training can take place remotely in consultation with the head of the department and the dean. The completed tasks according to the thematic plan should be presented during the consultation with the teacher.

All tasks provided by the program must be completed on time in accordance with the timetable.

A student who is late is considered to have missed classes for a disrespectful reason, on the topic of the class is assessed in the additional hours of academic debt, and has the right to be present at class.

Mobile devices

The use of mobile phones and computers without the permission of the teacher is a violation of discipline, the student does not receive a grade for the lesson and is obliged to complete such a lesson. Mobile devices may only be used during online testing.

Audience behavior

The course involves teamwork (student group, staff of the department, staff of the clinical base of the department). All communication environments are friendly, creative, open to constructive criticism.