


The working program is compiled on the basis of the educational and professional program "Medicine" for the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the field of knowledge 22 "Health care", approved by the Academic Council of ONMedU (Minutes No.10 dated 27/06/2024).

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Head of the Department


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Approved by the guarantor of
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Revised and approved at the meeting of the department of family medicine,
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Protocol No. 1 dated 29/08/2024

Head of the Department

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Revised and approved at the meeting of the department of _____

Protocol No. ___ dated ___/___/20__.

Head of the Department _____

1. Description of the discipline:

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the discipline
Total number: Credits of ECTS: 3,0 Hours: 90 Content modules: 2	Field of knowledge 22 «Health care» Specialty 222 «Medicine» Level of higher education second (master's degree)	<i>Full-time (day) education</i> <i>Elective course</i>
		<i>Course: 6</i>
		<i>Semester: XI - XII</i>
		<i>Lectures (0 hours)</i>
		<i>Seminars (0 hours)</i>
		<i>Practical classes (30 hours)</i>
		<i>Laboratories (0 hours)</i>
		<i>Independent work (60 hours)</i>
		<i>including individual tasks (0 hours)</i>
		<i>Form of final control – Credit Test</i>

2. The purpose and tasks of the educational discipline, competencies, program learning outcomes

Purpose: deepening, expansion and concretization by the student of higher education of knowledge and formation of elements of professional competences in the field of management, diagnosis, treatment, prevention of the development of overweight and obesity in children and adults, improvement of skills and competences acquired during studying the course, as well as verification of effectiveness and quality their assimilation.

The tasks of the discipline are the following:

1. Acquisition of knowledge and skills in timely identification and diagnosis of overweight and obesity in adults and children.
2. Improving the skills of substantiating of the clinical diagnosis of obesity and overweight, differential diagnosis of obesity of various etiologies, drawing up a plan for laboratory and instrumental research.
3. Deepening of knowledge on the prevention of obesity and overweight in children and adults.
4. Consolidation of knowledge and skills regarding the determination of tactics for correction and treatment of overweight and obesity in adults and children, prevention of complications of obesity.
5. Expanding knowledge and skills in assessing the direct and side effects of the main drugs for the treatment and prevention of obesity, as well as the effectiveness and safety of drugs, taking into account the peculiarities of the clinical course and concomitant diseases.
6. Improving knowledge and skills regarding the role of the family doctor in the management of overweight and obese patients.

The process of studying the discipline is aimed at forming elements of following competencies:

General competencies (GC):

- GC 1. Ability to abstract thinking, analysis, and synthesis.
- GC 3. Ability to apply knowledge in practical situations
- GC 4. Knowledge and understanding of the subject area and understanding of professional activity

- GC 5. Ability to adapt and act in a new situation.
- GC 6. Ability to make reasonable decisions
- GC 7. Ability to work in a team
- GC 8. Ability to interpersonal interaction
- GC 11. Ability to search, process and analyze information from various sources
- GC 12. Determination and persistence in relation to assigned tasks and assumed responsibilities
- GC 13. Awareness of equal opportunities and gender issues.
- GC 16. Ability to evaluate and ensure the quality of the work performed

Special competencies (SC):

- SC1 – Ability to collect medical information about the patient and analyze clinical data.
- SC2 – Ability to determine the list of laboratory and instrumental studies and evaluate their results.
- SC3 – Ability to establish a preliminary and clinical diagnosis of the disease.
- SC6 – Ability to determine the principles and nature of treatment and prevention of diseases.
- SC7 – Ability to diagnose emergency conditions.
- SC8 – Ability to determine tactics and provide emergency medical help.
- SC16 – Ability to maintain medical documentation, including electronic forms.
- SC26 – The ability to determine the management tactics of persons subject to dispensary supervision.

Program learning outcomes (PLO):

- PLO 1. Having a thorough knowledge of the structure of professional activity. Being able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.
- PLO 2. Understanding and knowledge of fundamental and clinical biomedical sciences, at a level sufficient for solving professional tasks in health care.
- PLO 3. Specialized conceptual knowledge that includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems, including an early intervention system.
- PLO 4. Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs, and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).
- PLO 5. Collect complaints, life anamnesis, and diseases, assess the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies, and evaluate information about the diagnosis (according to list 4), considering the age of the patient.
- PLO 6. To establish a final clinical diagnosis by making a reasoned decision and analyzing the received subjective and aim data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of the managing physician in the conditions of a health care institution (according to list 2).
- PLO 7. Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, functional, and/or instrumental) (according to list 4) of patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).
- PLO 8. Determine the primary clinical syndrome or symptom that determines the severity of the victim's/victim's condition (according to list 3) by making a reasoned decision about the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.

PLO 10. Determine the necessary mode of work, rest, and nutrition based on the final clinical diagnosis, observing the relevant ethical and legal norms by making a reasoned decision according to existing algorithms and standard schemes.

PLO 14. Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time conditions according to existing clinical protocols and treatment standards.

PLO 16. Form rational medical routes for patients to organize the interaction with colleagues in their own and other institutions, organizations, and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment.

PLO 17. Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home, or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, and observing the relevant ethical and legal norms.

PLO 21. Searching for the necessary information in the professional literature and databases of other sources, analyzing, evaluating and application of this information.

PLO 30. Determine the management tactics of persons subject to dispensary supervision.

As a result of studying the discipline, the student has to

Know:

- basics of etiology and pathogenesis of overweight and obesity
- classification of obesity by types, species and degree of obesity
- methods of diagnosing overweight and obesity in adults and children
- principles of prevention and treatment of obesity. modern methods of correction and treatment of obesity, psychological and behavioral interventions in the curation of obesity
- basics of family doctor management of overweight and obesity in adults and children

Be able:

- carry out measurements necessary to determine the degree of obesity
- assess risk factors, symptoms, causes, eating habits underlying the development of overweight and obesity, identify comorbidities
- interpret the data of basic laboratory and instrumental studies in obese patients
- carry out differential diagnosis and substantiate the clinical diagnosis of obesity
- determine treatment tactics and obesity prevention methods
- keep medical records

3. The content of the educational discipline

Content module 1.

Identification of the syndrome of overweight and obesity. Methods of correction and treatment of overweight and obesity.

Theme 1. Overweight and obesity. Definition. Epidemiology. Etiology. Classification. Diagnostics.

Definition of overweight, and obesity. Causes and risk factors for the development of overweight and obesity. Epidemiology. Classification of obesity. Measurements needed to determine the degree of obesity. Differential diagnosis of obesity. Complications of obesity.

Theme 2. Physical activity of patients living with obesity.

Approaches to changing physical activity and lifestyle modification in overweight and obese patients. Types of physical activity, its impact on health

Theme 3. Diet of patients living with obesity.

Basic principles of diet therapy, characteristics of diet for people living with obesity. Healthy eating behavior. The effect of controlled weight loss on various obesity risk factors.

Theme 4. The latest pharmacological methods of obesity treatment.

Classification and mechanism of action of pharmacological drugs used to treat obesity. Indications and contraindications for prescribing the newest pharmacological drugs against obesity. Evaluation of the effectiveness, safety and side effects of the main drugs for the treatment and prevention of obesity.

Content module 2.

Obesity and comorbid pathology. Prevention of obesity in adults and children.

Theme 5. Comorbid pathology in obese patients.

Diabetes and obesity. Diseases of the respiratory system and obesity. The course of cardiovascular diseases against the background of obesity. The course of gastrointestinal diseases and liver diseases against the background of obesity. Diseases of the musculoskeletal system and obesity. Disorders of the genitourinary system in women and obesity.

Theme 6. Prevention of obesity in adults.

Primary, secondary and tertiary prevention of obesity. The influence of bad habits on the development of obesity. Pregnancy and gestational weight gain, weight maintenance after childbirth. Psychological and behavioral interventions in the treatment of obesity.

Theme 7. Prevention of obesity in children.

Screening for obesity in children. Etiology of obesity in children. Risk factors. Differential diagnosis. Methods of preventing obesity in children.

Theme 8. Treatment of obesity in children.

General principles and methods of treatment of obesity in children. Medicinal and non-medicinal approaches to the management of obese childhood patients.

4. The structure of the educational discipline

Themes	Number of hours					
	Total	including				
		lectures	seminars	practical classes	laboratories	Independent work
Content module 1.						
Identification of the syndrome of overweight and obesity. Methods of correction and treatment of overweight and obesity.						
Theme 1. Overweight and obesity. Definition. Epidemiology. Etiology. Classification.	12	0	0	4	0	8

Diagnostics.						
Theme 2. Physical activity of patients living with obesity.	8	0	0	4	0	4
Theme 3. Diet of patients living with obesity.	12	0	0	4	0	8
Theme 4. The latest pharmacological methods of obesity treatment.	12	0	0	4	0	8
<i>Total by content module 1</i>	44	0	0	16	0	28
Content module 2.						
Obesity and comorbid pathology. Prevention of obesity in adults and children.						
Theme 5. Comorbid pathology in obese patients.	16	0	0	4	0	12
Theme 6. Prevention of obesity in adults.	12	0	0	4	0	8
Theme 7. Prevention of obesity in children.	8	0	0	4	0	4
Theme 8. Treatment of obesity in children.	10	0	0	2	0	8
<i>Total by content module 2</i>	46	0	0	14	0	32
Total hours	90	0	0	30	0	60

5. Themes of lectures / seminars / practical classes / laboratories

5.1. Themes of lectures

Lectures are not provided.

5.2. Themes of seminars

Seminars are not provided.

5.3. Themes of practical classes:

No.	Theme	Hours
1.	Overweight and obesity. Definition. Epidemiology. Etiology. Classification. Diagnostics.	4
2.	Physical activity of patients living with obesity.	4
3.	Diet of patients living with obesity.	4
4.	The latest pharmacological methods of obesity treatment.	4
5.	Comorbid pathology in obese patients.	4
6.	Prevention of obesity in adults.	4
7.	Prevention of obesity in children.	4

8.	Treatment of obesity in children.	2
	Total	30

5.4. Themes of laboratories

Laboratories are not provided.

6. Independent work of the student

No.	Theme	Hours
1.	Preparation for practical classes 1	4
2.	Preparation for practical classes 2	4
3.	Preparation for practical classes 3	4
4.	Preparation for practical classes 4	4
5.	Preparation for practical classes 5	4
6.	Preparation for practical classes 6	4
7.	Preparation for practical classes 7	4
8.	Preparation for practical classes 8	4
9.	Preparation for practical classes 9	4
10.	Preparation for practical classes 10	4
11.	Preparation for practical classes 11	4
12.	Preparation for practical classes 12	4
13.	Preparation for practical classes 13	4
14.	Preparation for practical classes 14	4
15.	Preparation for practical classes 15	4
	Total	60

7. Teaching methods

Practical classes:

- verbal methods: conversation, explanation, discussion, discussion of the acute issues;
- visual methods: illustration (including multimedia presentations);
- practical methods: testing, solving situational tasks (including calculation ones), checking the skills of working with a glucometer.

Independent work:

- independent work with recommended basic and additional literature, with electronic information resources, preparation for seminar classes;
- independent performance of an individual task, preparation of a presentation to defend an individual task.

8. Forms of control and evaluation methods (including criteria for evaluating learning outcomes)

Ongoing control:

- oral control: individual survey on the theme;
- written control: assessment of the situational task solutions (including calculation), assessment of the performance of an individual task;
- test control: assessment of performance of tests on the theme.

Final control: Credit Test.

Assessment of the ongoing learning activity at the practical classes:

1. Assessment of the theoretical knowledge on the theme:
 - methods: individual survey on the theme, participation of the students in the discussion of problem situations; assessment of performance of tests on the theme;
 - the maximum score – 5, the minimum score – 3, the unsatisfactory score – 2.
2. Assessment of practical skills on the theme:
 - methods: assessment of the solution of situational tasks (including calculation) on the theme;
 - the maximum score – 5, the minimum score – 3, the unsatisfactory score – 2.

Assessment of the individual work:

1. Assessment of the quality of the performance of the individual work:
 - the maximum score – 5, the minimum score – 3, the unsatisfactory score – 2.
2. Assessment of the presentation and defense of an individual work, participation in the assessment of the business plan of the competitors and its critical analysis:
 - the maximum score – 5, the minimum score – 3, the unsatisfactory score – 2.

The score for one practical class is the arithmetic average of all components and can only have an integer value (5, 4, 3, 2), which is rounded statistically.

Criteria of ongoing assessment at the seminar class

Score	Assessment criterion
Excellent «5»	<p>The student participates actively in the seminar class. He/she demonstrates profound knowledge and provides full and detailed answers. He/she participates actively in discussing problem situations. He/she uses additional educational and methodological and scientific literature. The student knows how to form his attitude to a certain issue and conveys his/her attitude to the issue, gives appropriate examples. He/she knows how to find the most adequate forms of conflict resolution.</p> <p>The tests are completed in full, all 100% of the answers are correct, the answers to the open questions are complete and justified.</p> <p>The student freely solves situational tasks (including calculations), confidently demonstrates practical skills on the theme of seminar class and correctly interprets the data obtained. He/she expresses his own creative opinion on the theme, demonstrates creative thinking.</p>
Good «4»	<p>The student participates in the seminar class. He/she have mastered the material of the seminar class and shows the necessary knowledge, but answers the questions with some mistakes. He/she participates in discussing problem situations. He/she uses the basic educational and methodological and scientific literature. The student expresses his own opinion on the theme of seminar class.</p> <p>The tests are completed in full, not less than 70% of the answers are correct, the answers to the open questions are generally correct, but there are some mistakes in definitions.</p> <p>The student correctly solves situational tasks (including calculations), but admits minor inaccuracies and demonstrates more standardized practical skills on the theme of seminar class with correct interpretation of the received data. He/she expresses his own opinion on the theme, demonstrates creative thinking.</p>
Satisfactory «3»	<p>The student sometimes participates in the seminar class. He/she partially intervenes and asks questions, answers the questions with mistakes. He/she passively works in practical exercises. He/she demonstrates fragmentary knowledge of the conceptual apparatus and literary sources.</p>

	<p>The tests are completed in full, not less than 50% of the answers are correct, the answers to the open questions are illogical, with obvious significant errors in definitions.</p> <p>The student does not have sufficient knowledge of the material to solve situational problems (including calculations). He/she uncertainly demonstrates practical skills on the theme of seminar class and interprets the data with significant errors, does not express his/her opinion on the topic of the situational problem.</p>
Unsatisfactory «2»	<p>The student does not participate in the seminar class, just observes the learning process. He/she never speaks out or asks a question. He/she is disinterested in the study of the material. The student gives incorrect answers to questions, demonstrates poor knowledge of the conceptual apparatus and literary sources.</p> <p>The test has not been completed.</p> <p>The situation task has not been completed.</p>

Credit Test is considered, if the student has completed all the tasks of the working program of the educational discipline. He/she took actively participated in the practical exercises, and completed an individual work. The student has an average current rating of at least 3.0 and has no academic debt.

9. Distribution of points, obtained by the student

The average grade in the discipline is converted to the national grade and converted to points on a multi-point scale (200-point scale).

Conversion of traditional assessment into 200-point is carried out by the information and technical department of ONMedU by the special program by the formula:

$$\text{Average score (current academic performance)} \times 40.$$

Conversion table of traditional to multi-point

National score for the discipline	The sum of scores for the discipline
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Less than 120

10. Methodological support

- Working program in the discipline
- Syllabus
- Methodological recommendations for the seminar classes in the discipline
- Methodological recommendations for the individual work of students
- Multimedia presentations
- Situational tasks (including calculation)
- Tests on the theme

11. Questions for the ongoing control

1. Definition of overweight and obesity, criteria.
2. Classification of obesity by degree, etiology. Types of obesity. Differential diagnosis.

3. Complication of obesity.
4. Methods and approaches to changing physical activity and lifestyle modification of overweight and obese patients.
5. Types of physical activity, its impact on health.
6. Basic principles of diet therapy, characteristics of diet for people living with obesity.
7. What is healthy eating behavior?
8. The effect of controlled weight loss on various obesity risk factors.
9. Classification and mechanism of action of pharmacological drugs used to treat obesity. Indications and contraindications for prescribing the newest pharmacological drugs against obesity.
10. Evaluation of the effectiveness, safety and side effects of the main drugs for the treatment and prevention of obesity.
11. Diabetes and obesity.
12. Diseases of the respiratory system and obesity.
13. The influence of obesity on the course of cardiovascular diseases.
14. The course of gastrointestinal diseases and liver diseases against the background of obesity.
15. Diseases of the musculoskeletal system and obesity.
16. Dysfunction of the genitourinary system in women and obesity.
17. Primary, secondary and tertiary prevention of obesity. The influence of bad habits on obesity.
18. Pregnancy and gestational weight gain, weight maintenance after childbirth.
19. Psychological and behavioral interventions in the treatment of obese patients.
20. Screening of obesity in children. Etiology of obesity in children. Risk factors. Differential diagnosis.
21. Methods of preventing obesity in children.
22. General principles and methods of treatment of obesity in children.
23. Medicinal and non-medicinal approaches to the management of obese childhood patients.

12. Recommended literature

Basic:

1. Yu.V. Voronenko, O.G. Shekera, L.V. Himion. etc. Current issues of internal diseases in the practice of a family doctor. - Zaslavsky publishing house. -K., 2018. – 600 p.
2. Internal diseases: in 2 parts. Textbook / L.V. Hlushko, S.V. Fedorov, I.M. Skrypnyk and others. "Medycyna" Publishing House, Kyiv, 2019, 584 p.
3. Internal diseases. A textbook based on the principles of evidence-based medicine. Publishing house "Medycynapraktyczna", 2019, p. 1632
4. Yu.V. Voronenko, O.G. Shekera, M.M. Dolzhenko. etc. Current issues of cardiovascular diseases in the practice of a family doctor. – Zaslavsky publishing house. - K., 2017. - 414 p.
5. Yu.V. Voronenko, O.G. Shekera, Yu.I. Gubskiy. etc. Current issues of palliative and hospice care in the practice of a family doctor. - Zaslavsky publishing house. - K., 2017. – 208 p.
6. Diagnostic methods in the clinic of internal medicine: training manual / A.S. Svintsitskiy "Medycyna" Publishing House, Kyiv, 2019. P. 1008
7. Diseases of the respiratory, immune and cardiovascular systems / Vitaliy Kryvenko - Kyiv: Practicing Physician's Library, 2019. - 360p.
8. Emergency medicine: Emergency (quick) medical care: Textbook for med. University of the IV R.A. Approved by MES / I.S. Zozulya, V.I. Bobrova, H.G. Roschin and others; under the editorship I.S. Cuckoos — 3rd ed., revision. and additional — K., 2017. — 960 p.
9. Propaedeutics of internal medicine: Textbook for med. University of the III-IV year — 5th type. Approved by the Ministry of Health / Ed. O.H. Yavorsky — K., 2018.

10. Family Medicine in 3 books - B1: General Issues Of Family Medicine: Textbook for students of higher medical education establishments of the 4th level of accreditation. Approved by the Ministry of Education and Science of Ukraine. Recommended by the Academic Board of O.O.Bohomolets NMU/ Authors O.M. Hyrina, O.M. Pasiyeshvili - Kiiv, 2016.

Additional:

1. BMJ Best Practice. Amar Puttanna, Partha Kar. Type 2 diabetes in adults. [Electronic resource]. Available at: <https://bestpractice.bmj.com/topics/en-gb/24/guidelines>
2. Harrison's Principles of Internal Medicine, Twenty-First Edition (Vol.1 & Vol.2). Joseph Loscalzo, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, J. Larry Jameson. – McGraw Hill / Medical. 2022. – 2 / 15164 p.

13. Electronic information resources

1. [American Diabetes Association \(ADA\): Standards of medical care in diabetes \(2022\)](#)
2. [Obesity and weight management for the prevention and treatment of type 2 diabetes\(2022\)](#)
3. [Department of Veteran Affairs \(VA\)/Department of Defense \(DoD\): Clinical practice guideline for management of adult overweight and obesity \(OBE\) \(2020\)](#)
4. [US Preventive Services Task Force \(USPSTF\): Final recommendation statement on healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors – Behavioral counseling interventions \(2020\)](#)
5. [ACOG: Committee opinion on ethical considerations for the care of patients with obesity \(2019\)](#)
6. [The Obesity Society \(TOS\): Position statement on obesity as a disease \(2019\)](#)
7. [Endocrine Society \(ES\): Clinical practice guideline for the primary prevention of ASCVD and T2DM in patients at metabolic risk \(2019\)](#)
8. [International Federation of Gynecology and Obstetrics \(FIGO\): Guideline for management of prepregnancy, pregnancy, and postpartum obesity \(2020\)](#)
9. [ES: Clinical practice guideline for pharmacological management of obesity \(2016\)](#)
10. [World Health Organization \(WHO\): Guideline – Sugars intake for adults and children \(2015\)](#)
11. [Obesity Canada: Canadian adult obesity clinical practice guidelines \(2020\)](#)
12. [Society of Obstetricians and Gynaecologists of Canada \(SOGC\): Clinical practice guideline on pregnancy and maternal obesity part 1 – Pre-conception and prenatal care \(2019\)](#)
13. [American Heart Association \(AHA\): Science advisory on dietary diversity – Implications for obesity prevention in adult populations \(2018\)](#)
14. [AHA/American College of Cardiology \(ACC\)/TOS: Guideline for the management of overweight and obesity in adults \(2013\)](#)
15. [Офіційний веб-сайт Міністерства охорони здоров'я - України https://moz.gov.ua/](https://moz.gov.ua/)
16. [Офіційний веб-сайт Всесвітньої Асоціації сімейних лікарів https://www.woncaeurope.org/](https://www.woncaeurope.org/)
17. [Офіційний веб-сайт Української Асоціації сімейних лікарів - http://www.ufm.org.ua/](http://www.ufm.org.ua/)
18. [Офіційний веб-сайт Міністерства охорони здоров'я України. Настанови для первинної медичної допомоги Duodecim Medical Publications Ltd. - https://guidelines.moz.gov.ua/](https://guidelines.moz.gov.ua/)