

Odessa National Medical University
Faculty of medicine, international
Department of Ophthalmology

Course syllabus
OPHTHALMOLOGY

Extent	12 credits / 360 hours
Semester, year of study	IV semester, 2 year of study
Days, time, place	According to the schedule in the classrooms of the Department of Ophthalmology: st. Olhivska, 4; 49/51 French Boulevard.
Teacher (-s)	Liudmyla Vilenivna Venger, Doctor of Medicine., professor, head of the department of ophthalmology Nataliya Valeriivna Konovalova, Doctor of Medicine, senior research associate, Associate Professor of Ophthalmology Department
Contact phone number	+380507775529 +380676635779
E-mail	lyudmyla.venger@onmedu.edu.ua kvnkonovalova@gmail.com
Workplace	Office of the head of the Department of Ophthalmology, str. Olhivska, 4. Teacher's room, 49/51 French Blvd.
Consultations	<i>Face-to-face consultations:</i> Thursday - from 13.00 to 15.00; Friday - from 9.00 to 13.00. <i>Online consultations:</i> Thursday - from 13.00 to 15.00; Friday - from 9.00 to 13.00. <i>Microsoft Teams or through Telegram/Viber</i>

COMMUNICATION

Communication with graduate students is carried out through face-to-face meetings. In case of transition to distance learning, communication with graduate students will be carried out using e-mail and programs: Microsoft Teams, Moodle, Telegram and Viber.

COURSE ABSTRACT

Subject of discipline study

The subject of study of the educational discipline «Ophthalmology» is an in-depth study of issues of clinical anatomy, physiology, modern methods of research of the organ of vision and its appendages, etiology, pathogenesis, diagnosis and treatment of the most common ophthalmic diseases, measures for the organization of a sanitary and epidemic regime in an ophthalmic clinic; principles of treatment of traumatic injuries; inflammatory diseases of the organ of vision; basics of ophthalmic oncology.

Course prerequisites and post-requisites (Place of the discipline in the educational program)

Studying the academic discipline «Ophthalmology» is based on previous (providing) disciplines (student course): «Ophthalmology», «Normal and pathological clinical anatomy», «Clinical chemistry», «General and clinical pathological physiology», «Microbiology, virology and immunology», «Pharmacology», «Clinical pharmacology», «Infectious diseases», «Phthisiopulmonology», «Endocrinology», «Internal Medicine», which involves integration with these disciplines and forms the ability to apply knowledge in the process of further education and professional activity. At the same time, the study of this discipline ensures the preparation of graduate students and applicants to master the following disciplines of the first year of study – «Academic integrity», «Professional ethics of scientific activity in the field of health care» and «Pedagogy of high school».

The purpose of the course

The purpose of teaching the academic discipline «Ophthalmology» is the training of highly qualified scientific and scientific-pedagogical specialists who are capable of competently solving complex problems in the field of professional and research innovation activities when planning and performing their own research, forming and developing their competence in accordance with professional standards; in-depth mastery of the discipline «Ophthalmology» for high-quality performance of original scientific research and formation of skills and abilities in teaching the discipline.

Tasks of the discipline:

- acquisition and deepening of a set of knowledge, abilities, skills and other competencies sufficient for the production of new ideas, solving complex tasks in ophthalmology;
- practicing the skills and abilities of analyzing the results of ophthalmological research;
- conducting one's own scientific research that solves an actual scientific task in ophthalmology, the results of which have scientific novelty, theoretical and practical significance;
- mastering the methodology of scientific and pedagogical activity;
- master the ability to organize and conduct training sessions;
- acquisition of skills and abilities of educational-methodological and educational work;
- to acquire skills in using modern information technologies in teaching ophthalmology.

Expected results

According to the results of studying the discipline, graduate students should

know:

- modern approaches and methods for carrying out interdisciplinary scientific research,
- the theory of the cognitive process and the technology of the pedagogical process;
- modern achievements in the field of scientific research,
- anatomy, histology, structure of the organ of vision; features of its topography;

- optical system of the eye, clinical and physical refraction, accommodation;
- rules for determining the functions of peripheral and central vision;
- physiology of binocular vision, research methods, basics of diagnosis, treatment of strabismus (various types);
- diseases of the conjunctiva (clinic, diagnosis, differential diagnosis, treatment);
- clinic, diagnosis, differential diagnosis, examination, treatment of corneal diseases;
- clinic, diagnosis, differential diagnosis, examination, treatment of diseases of the anterior and posterior segments of the vascular tract;
- pathogenesis, diagnosis, research methods, treatment of lens diseases;
- methods of examination of patients with damage to the organ of vision, their diagnosis, treatment and prevention;
- clinic, diagnosis, differential diagnosis, treatment of glaucoma;
- clinic, diagnosis, differential diagnosis, treatment of the main diseases of the retina;
- the main forms of optic nerve disease;
- clinic, methods of diagnosis and treatment of diseases of the orbit;
- professional eye diseases, complex measures for dispensaryisation of patients, prevention and medical expertise.

be able:

- conduct training sessions and consultations;
- analyze ophthalmological information in modern reference books, scientific and professional periodicals;
- conduct research according to the selected methods;
- interpret the results of modern research methods;
- receive and interpret new scientific facts that expand the scope of knowledge in the investigated problem
- to analyze and compare clinical and pathological diagnosis, to analyze cause-and-effect relationships of errors in diagnosis and treatment of patients.
- to analyze the results of examination of patients with general eye pathology.
- analyze the results of the patient's ophthalmological examination.
- to analyze the structural and functional interrelationships and sequence of stages of general pathological processes in ophthalmology.
- analyze and draw conclusions about the etiology and pathogenesis of functional disorders in eye diseases.
- determine etiological, pathogenetic factors and clinical manifestations, make a diagnosis of an emergency and provide emergency assistance to the victim in the conditions of natural and man-made disasters.
- perform medical manipulations necessary to provide emergency medical care.
- identify congenital and acquired defects of the eye and its appendages.
- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination.
- apply the basic principles of asepsis, antiseptics and analgesia.
- provide emergency medical care for emergency conditions in ophthalmology.

- substantiate and formulate a preliminary clinical ophthalmological diagnosis.
- carry out differential diagnosis of ophthalmic diseases.
- interpret the etiology, pathogenesis and morphological changes at different stages of the development of the disease, the structural basis of recovery, complications and consequences of diseases of the eye and its appendages.
- present and discuss the results of your work in Ukrainian and a foreign language (English) orally and in writing.

COURSE DESCRIPTION

Forms and methods of education

The course is taught in the form of lectures (10 hours) and seminar classes (170 hours), as well as through the organization of independent work of graduate students (180 hours); in total - 360 hours (12 credits).

In the process of conducting lectures and seminars, the use of such teaching methods is expected:

- according to the dominant means of education: verbal, visual;
- drawing up graphic schemes;
- solving situational problems;
- discussions on problem situations;
- performance of written tasks;
- individual control interview;
- knowledge control tests.

Content of the academic discipline

Topic 1. History of the Odesa School of Ophthalmology. Organization of ophthalmology service.

Topic 2. Development, normal anatomy and histology of the organ of vision.

Topic 3. Physiology of the organ of vision. Methods of visual analyzer examination.

Topic 4. Physiological optics. Refraction and accommodation. Clinical examination methods.

Topic 5. Eye protection for children and adolescents.

Topic 6. Strabismus

Topic 7. Contact vision correction.

Topic 8. Diseases of the oculomotor system and orbit.

Topic 9. Diseases of the protective apparatus of the eye and orbit.

Topic 10. Diseases of the conjunctiva

Topic 11. Diseases of the cornea and sclera

Topic 12. Diseases of the vascular membrane.

Topic 13. Glaucoma

Topic 14. Lens disease.

Topic 15. Diseases of the retina and vitreous body.

Topic 16. Neuroophthalmology

Topic 17. Damage to the organ of vision

Topic 18. Emergency care in ophthalmology.

Topic 19. Modern examination methods in ophthalmology

Topic 20. Methods of treatment in ophthalmology

Topic 21. Ophthalmological symptoms in general diseases, syndromes.

Topic 22. Hereditary diseases of the organ of vision.

Topic 23. MSEC in diseases and damage to the organ of vision.

List of recommended literature:

a) basic:

1. Ophthalmology: textbook / O. P. Vitovska, P. A. Bezditko, I. M. Bezkorovayna et al.; edited by O. P. Vitovska. - Kyiv: AUS Medicine Publishing, 2017. - 648 p. ISBN 978-617-505-598-4

2. Eye Diseases. Course of lectures: textbook / G. E. Venger, A. M. Soldatova, L. V. Venger; edited by V. M. Zaporozhan. - Odessa: Odessa Medical University, 2005. – 157p.

3. Ophthalmology: textbook. / Gerhard K. Lang, edited by J. Amann, O. Gareis, Gabriele E. Lang, Doris Recker, C.W. Spraul, P. Wagner. - Thieme Stuttgart. New York, 2000. - 604 p. ISBN 0-86577-936-8.

4. ABC of Eyes, Fourth Edition: textbook / P. T. Khaw, P. Shah, A. R. Elkington. - by BMJ Publishing Group Ltd, BMA House, Tavistock Square, London, 2005. - 97 p. ISBN 0 7279 1659 9.

5. Common Eye Diseases and their Management: textbook / N. R. Galloway, W.M.K. Amoaku, P. H. Galloway and A. C. Browning; -Springer - Verlag London Limited, 2006. – 208 p. ISBN 1-85233-050-32.

6. Ophthalmology at a Glance: textbook / JANE OLVER, LORRAINE CASSIDY; - by Blackwell Science Ltd a Blackwell Publishing company, USA, 2005. -113 p. ISBN-10: 0-632-06473-0.

7. Atlas of Glaucoma. Second edition: textbook / Neil T. Choplin, Diane C. Lundy. - Informa healthcare, United Kingdom, 2007. -364 p. ISBN-10: 1841845183.

8. EYE Atlas. Online Atlas of Ophthalmology. / All rights Reserved, Oculisti Online. Copyright 2001. -408 p.

9. Офтальмологія: підручник / Г. Д. Жабоедов, Р. Л. Скрипник, Т. В. Баран та ін.; за ред. чл.-кор. НАМН України, проф. Г. Д. Жабоедова, д-ра мед. наук, проф. Р. Л. Скрипник. – К. : ВСВ „Медицина”, 2011. – 424 с.

10. Офтальмологія : практикум / Г. Д. Жабоедов, В. В. Кіреєв; за ред. чл.-кор. НАМН України, проф. Г. Д. Жабоедова, – К. : ВСВ „Медицина”, 2011. – 280 с.

11. “Неонатологія” у 3 томах: монографія / Пасечнікова Н.В., Кацан С.В., Знаменська Т.К., Антипкін Ю.Г., Аряєв М.Л. - Львів, Марченко Т.В., 2020,- 455 с.

12. Терапевтична офтальмологія. Посібник з офтальмології / За редакцією Г. Д. Жабоедова, А. О. Ватченко, К.: „Здоров’я”, 2003. – 133 с.

б) additional:

1. Будова зорової системи людини: навчальний посібник / В. В. Віт. 3-є видання. - Одеса: Астропринт, 2018. - 664 с.: іл.

2. “Патологія ока, його придатків та орбіти” Том 1, 2.: монографія / В.В. Віт. – Одеса: Астропринт, 2019. -1866 с.

3. "Ретинобластома": монографія / під ред. Н.Ф. Бобрової. – Одеса: Видавничий центр, 2020. -324 с.
4. Кератопротезування: монографія / С.А. Якименко; ДУ «Інститут очних хвороб і тканинної терпи ім. В. П. Філатова НАМН України». - Одеса: «СІМЕКСПРІНТ», 2018. - 164 с.: іл.
5. Фундаментальні аспекти розвитку та лікування діабетичної ретинопатії: монографія / Е.В. Мальцев, О.В. Зборовська, А.Е. Дорохова – Одеса: Астропринт, 2018. -220 с.: мал.
6. “Офтальмологічна загадка - Птерігіум”: монографія / Мальцев Е.В., Усов В.Я., Крицун Н.Ю. – Одеса: Астропринт, 2020. -154с.
7. Акомодаційна езотропія: клініка, діагностика, лікування: (монографія) / В.І. Сердюченко, Н.М. Дегтярьова. - Одеса: Астропринт, 2018.- 60 с.
8. Фосфенелектродіагностика в офтальмології: монографія / В. С. Пономарчук; ДУ «Інститут очних хвороб і тканинної терапії ім. В. П. Філатова НАМН України». - Одеса: Астропринт, 2018-104 с.: мал.
9. "Опіки очей та їх лікування": монографія / Якименко С.А. - Одеса: Чорномор'я, 2020. -284 с.
10. Г. Е. Венгер, С. А. Рыков, Л.В. Венгер. Реконструктивная хирургия радужной оболочки. – Киев: Логос, 2006. – 255 с.

Information resources

1. Online platform of evidence-based clinical protocols of the Ministry of Health of Ukraine <https://guidelines.moz.gov.ua/documents>
2. SE "Ukrainian Scientific Pharmacopoeia Center for the Quality of Medicinal Products" <http://sphu.org/>
2. National Scientific Medical Library of Ukraine <http://library.gov.ua/>
3. National Library of Ukraine named after V.I. Vernadskyi <http://www.nbu.gov.ua/>
4. http://institut-filatova.com.ua/ua/nauchnaya_rabota/monographs/
5. http://institut-filatova.com.ua/ua/nauchnaya_rabota/theses/dissertacii.html
6. Drug Interaction Prediction Resource (based on FDA guidance, in English) URL: <http://www.drugs.com>
7. Institutional Repository of Odessa National Medical University <https://repo.odmu.edu.ua/xmlui/>
8. Electronic database of scientific publications of the National Library of Medicine of the US National Institutes of Health; https://library.gov.ua/svitovi-e-resursy/dir_category/general/
9. Educational portal of O.O. Bogomolets NMU <http://nmuofficial.com/zagalni-vidomosti/biblioteky/>
10. Order of the Ministry of Health of Ukraine dated January 28, 2016 No. 49 "On the approval and implementation of medical and technological documents on the standardization of medical care for cataract"

<https://ips.ligazakon.net/document/MOZ25523>; <https://medprosvita.com.ua/nakaz-moz-ukrayini-vid-ipro-zatverdzhennya-vprovadzhennya-mediko/>

11. Order of the Ministry of Health of Ukraine dated December 8, 2015 No. 827 "On the approval and implementation of medical and technological documents on the standardization of medical care in cases of refraction and accommodation disorders"
<https://ips.ligazakon.net/document/MOZ25456>

12. UNIFIED CLINICAL PROTOCOL OF MEDICAL CARE FOR GLAUCOMA PRIMARY OPEN-ANGLE PRIMARY AND SECONDARY MEDICAL CARE
<https://medprosvita.com.ua/unifikovanijj-klinichniijj-protokol-med/>

ASSESSMENT

Current control is carried out in seminar classes in accordance with formulated tasks on each topic. When evaluating educational activities, preference is given to standardized control methods: oral interview, structured written works, discussions, reports.

At the end of the study of the discipline, the current success rate is calculated as the average current score, that is, the arithmetic average of all the grades received by the graduate student on a traditional scale, rounded to two decimal places.

Assessment of current discipline control:

The value of the rating «**excellent**»: a graduate student shows special creative abilities, knows how to independently acquire knowledge, finds and processes the necessary information without the help of a teacher, knows how to use the acquired knowledge and skills to solve problems, is able to produce innovative ways of solving problems, convincingly argues answers, independently reveals his own gifts and inclinations.

The value of the rating «**good**»: the graduate student has a fluent command of the studied volume of material, applies it in practice, freely solves exercises and problems in standard situations, independently corrects the mistakes made, the number of which is insignificant.

The value of the rating «**satisfactory**»: a graduate student is able to master a significant part of the theoretical material, but mainly in a reproductive form, demonstrates knowledge and understanding of the main provisions, can analyze the educational material with the help of the teacher, correct errors, among which there are a significant number of essential ones.

The value of the rating «**unsatisfactory**»: the graduate student has the material at the level of individual fragments, which constitute a small part of the educational material.

Only those graduate students who have no academic debt and have an average score for current academic activities of at least 3,00 are admitted to the final certification.

Forms and methods of final control

Final control of discipline «Ophthalmology» is an exam.

The grade for the discipline is the arithmetic mean of the two components

(calculated as a number rounded to two decimal places, e.g., 4,76):

- 1) average current score as the arithmetic average of all current grades;
- 2) traditional assessment for the exam.

The obtained average score for the discipline is converted into a score on a 200-point scale by multiplying the arithmetic average by 40.

GPA for discipline	Discipline assessment on a 200-point scale	Discipline assessment on a 4-point scale (traditional assessment)
4,62–5,0	185–200	5
3,77–4,61	151–184	4
3,0–3,76	120–150	3

Individual work

Assessment of the independent work of graduate students and applicants, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom session, as well as at the final control (exam).

COURSE POLICY

Deadlines and Rescheduling Policy

Tasks must be completed on time according to the deadline. For untimely completion of the assignment, the graduate student receives an unsatisfactory grade. If the student of higher education was absent from classes for any reason, then the practice is carried out within the deadlines set by the teacher in accordance with the «Regulations on the Organization of the Educational Process at ONMedU» (link to the regulations on the university's website <https://onmedu.edu.ua/wp-content/uploads/2020/01/osvitnij-proces.pdf>). Rearranging is carried out in accordance with the approved schedule.

Academic Integrity Policy

The policy of the educational component is based on the principles of academic integrity (link to the regulations on the university's website <https://onmedu.edu.ua/wp-content/uploads/2020/07/polozhennja-pro-dobrochesnist.pdf>) and is determined by the system of requirements that the teacher presents to the student when studying the educational component:

- ♦ independent performance of educational tasks, tasks of current and final monitoring of learning results (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
- ♦ references to sources of information in the case of using ideas, developments, statements, information.

Attendance and Tardiness Policy

Attendance at lectures and seminars is mandatory to obtain a satisfactory grade. If you are late for more than 15 minutes, the lesson is considered missed and you need to make up for it.

Mobile devices

During classes, the use of a smartphone, tablet or other device for storing and processing information is allowed only with the teacher's permission.

During any form of control, the use of mobile devices and their accessories is strictly prohibited.

Behavior in the audience

During classes, it is allowed to: leave the audience for a short time if necessary and with the teacher's permission; take photos of presentation slides; take an active part in the lesson.

The following values should be cultivated while in the audience: respect for colleagues; tolerance for others; receptivity and impartiality; argumentation of agreement or disagreement with the opinion of other participants in the discussion, as well as one's own opinion; respecting the dignity of the opponent's personality during communication; compliance with the ethics of academic relationships.