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

Course syllabus
CHANGES IN THE ORGAN OF VISION IN GENERAL DISEASES

Extent	4 credits / 120 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. Olhiivska, 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
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Workplace	Office of the head of the Department of Ophthalmology, str. Olhiivska, 4. Teacher's room, 49/51 French Blvd.
Consultations	*Face-to-face consultations:* Thursday - from 13.00 to 15.00; Friday - from 9.00 to 13.00. *Online consultations:* Thursday - from 13.00 to 15.00; Friday - from 9.00 to 13.00. *Microsoft Teams* or through *Telegram/Viber*

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 is an in-depth study of changes in the organ of vision in general diseases, mastering the main issues of theory and practice of all sections of ophthalmology, diagnosis and prevention of the development of ophthalmic complications in general diseases.

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

The study of the educational discipline "Changes of the organ of vision in general diseases" is based on previous (providing) disciplines (student course): is based on in-depth study by graduate students of normal anatomy, histology, cytology

and embryology, pathological anatomy, propaedeutics of internal diseases and therapy, otolaryngology, endocrinology, neurology, cardiology, infectious diseases, family medicine, phthisiopulmonology, internal medicine, which involves integration with these disciplines and the formation of skills to apply knowledge in the process of further education and professional activity.

The purpose of the course

The goal of teaching the educational discipline "Changes of the organ of vision in general diseases" is the training of highly qualified specialists who are able to competently solve complex problems in the field of professional and research innovation activities when planning and performing their own research. Acquisition by each student of theoretical knowledge and practical skills regarding ophthalmological symptoms and changes in the organ of sight in general diseases, features of observation, diagnosis and management of such patients.

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,
- rules for determining peripheral and central vision functions;
- 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;

- 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 dispensarysation of patients, prevention and medical expertise.

be able:

- analyze the results of the patient's ophthalmological examination.
- to analyze structural and functional relationships and the sequence of stages of general pathological processes in ophthalmology.
- analyze and draw conclusions about the etiology and pathogenesis of functional disorders in eye diseases.
- conduct training sessions and consultations;
- analyze ophthalmological information in modern reference books, scientific and professional periodicals;
- conduct research according to the selected methods;
- to interpret the results of modern research methods;
- to receive and interpret new scientific facts that expand the scope of knowledge in the investigated problem
- to analyze the results of examination of patients with general eye pathology.
- determine etiological, pathogenetic factors and clinical manifestations, diagnose 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.
- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination.
- to provide emergency medical care for emergency conditions in ophthalmology.
- carry out differential diagnosis of ophthalmic diseases.

COURSE DESCRIPTION

Forms and methods of education

The course is taught in the form of seminar classes (60 hours), as well as through the organization of independent work of graduate students (60 hours); total - 120 hours (4 credits).

Teaching of the selective educational discipline "Changes of the organ of vision in general diseases" *in practical classes* is provided by methodical developments, visual teaching aids for each class (presentation), information resource of the department, structured algorithms of skill control.

The individual work when studying a selective academic discipline is provided by methodical developments for independent work, visual teaching aids (presentations), information resource of the department, structured algorithms of skill control.

Final control is not conducted, the study of the discipline ends with a credit at

the last practical lesson.

In the process of conducting seminar classes, the following teaching methods are expected to be used:

- according to the dominant means of learning: verbal, visual;
- drawing up graphic schemes;
- solving situational problems;
- discussions on problem situations;
- individual control interview.

Content of the academic discipline

Topic 1. Behcet's disease, Bekhterev- Strümpell–Marie disease.
Topic 2. Still's disease, Besnier-Boeck-Schaumann disease.
Topic 3. Changes in the organ of vision in some syndromes (Takayasu's disease, Grönblad-Strandberg syndrome, Recklinghausen neurofibromatosis, Behr's disease, Vogt - Koyanagi - Harada).
Topic 4. Changes in the retina and optic nerve in hypertension and atherosclerosis.
Topic 5. Changes in the organ of vision in heart defects, chronic heart failure and other vascular diseases.
Topic 6. Changes in the organ of vision in inflammatory and vascular diseases of the brain.
Topic 7. Pathology of the organ of vision in helminthiasis.
Topic 8. Changes in the organ of vision in diseases of the thyroid gland.
Topic 9. Changes in the organ of vision in diabetes (blepharitis, stye, iridocyclitis, cataract, glaucoma, diabetic retinopathy).
Topic 10. Changes in the organ of vision in kidney diseases.
Topic 11. Changes in the organ of vision in toxicoses of pregnancy.
Topic 12. Pathology of the organ of vision in tuberculosis.
Topic 13. Pathology of the organ of vision in TORCH infections.
Topic 14. Pathology of the organ of vision in AIDS.
Topic 15. Pathology of the organ of vision with COVID-19.

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.

б) additional:

1. Офтальмологія: підручник / Г. Д. Жабоєдов, Р. Л. Скрипник, Т. В. Баран та ін.; за ред. чл.-кор. НАМН України, проф. Г. Д. Жабоєдова, д-ра мед. наук, проф. Р. Л. Скрипник. – К. :ВСВ „Медицина”, 2011. – 424 с.
2. Офтальмологія: практикум / Г. Д. Жабоєдов, В. В. Кірєєв; за ред. чл.-кор. НАМН України, проф. Г. Д. Жабоєдова, – К. :ВСВ „Медицина”, 2011. – 280 с.
3. Г. Ю. Венгер, А. М. Солдатова, Л. В. Венгер. Офтальмологія. Курс лекцій. – Одеса: Одеський медуніверситет, 2010.- 180 с.
4.“Неонатологія” у 3 томах: монографія / Пасєчнікова Н.В., Кацан С.В., Знаменська Т.К., Антипкін Ю.Г., Аряєв М.Л. - Львів, Марченко Т.В., 2020,- 455 с.
5. “Патологія ока, його придатків та орбіти” Том 1, 2. : монографія / В.В. Віт. – Одеса: Астропринт, 2019. -1866 с.
6. Фундаментальні аспекти розвитку та лікування діабетичної ретинопатії : монографія / Е.В. Мальцев, О.В. Зборовська, А.Е. Дорохова – Одеса: Астропринт, 2018. -220 с.: мал.
7. Терапевтична офтальмологія. Посібник з офтальмології / За редакцією Г. Д. Жабоєдова, А. О. Ватченко, К.: „Здоров’я”, 2003. – 133 с.
Будова зорової системи людини: навчальний посібник / В. В. Віт. 3-е видання. - Одеса: Астропринт, 2018. - 664 с .: іл.
8. С. О. Риков Надання офтальмологічної допомоги населенню України з використанням інтегративно-диференційованої організаційної моделі / Метод. рекомендації/ Укр. центр научн. мед. інформ. та пат.-ліценз. роботи, Київ, мед. акад. післядипломної освіти ім. П. Л. Шупика: - К., 2003. – 25 с.
9. 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.
10. И. Л. Ферфильфайн Лекарственные средства в офтальмологии. Побочные действия на глаза лекарств общемедицинской практики.: справочник / И. Л. Ферфильфайн, С. А. Рыков. . – К.: ООО „Макрос”, 2008. – 280 с.
11. “Офтальмологічна загадка - Птерігіум”: монографія / Мальцев Е.В., Усов

В.Я., Крицун Н.Ю. – Одеса: Астропринт, 2020. -154с.
12. "Ретинобластома": монографія /під ред. Н.Ф. Боброової. – Одеса : Видавничий центр, 2020. -324 с.

Information resources

1. National Scientific Medical Library of Ukraine http://library.gov.ua/
2. National Library of Ukraine named after V.I. Vernadskyi http://www.nbuv.gov.ua/
3. Drug Interaction Prediction Resource (based on FDA guidance, in English) URL: http://www.drugs.com
4. Institutional Repository of Odessa National Medical University https://repo.odmu.edu.ua/xmlui/
5. 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/
6. Educational portal of O.O. Bogomolets NMU http://nmuofficial.com/zagalni-vidomosti/biblioteky/
7. Online platform of evidence-based clinical protocols of the Ministry of Health of Ukraine https://guidelines.moz.gov.ua/documents

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, solving typical and atypical clinical situational problems; control of practical skills; discussions, reports.

Assessment of current discipline control:

The value of the rating «**excellent**»: the graduate student shows special creative abilities, knows how to acquire knowledge independently, 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.

At the end of the study of the discipline, the current success rate is calculated

as the average current score, i.e. the arithmetic average of all grades received by the graduate student on a traditional scale, rounded to two decimal places.

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.

Forms and methods of final control

The study of the academic discipline ends with a test. Graduate students (seekers) who have not missed classes or completed missed classroom classes and have an average score of at least 3,00.

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

To obtain a satisfactory grade, attendance at lectures and seminars is mandatory. 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.