

FEDERAL STATE BUDGET EDUCATIONAL INSTITUTION  
OF HIGHER EDUCATION  
"ROSTOV STATE MEDICAL UNIVERSITY"  
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

*Faculty of Education of foreign students, residents and postgraduates*

CONFIRM  
Supervisor  
educational program  
\_\_\_\_\_  
(signature) " 31 " *abycra* 20 *23*  
E.S. Belousova /  
(FULL NAME.)



**DISCIPLINE WORKING PROGRAM**

**OPHTHALMOLOGY**

Speciality 31.05.01 General medicine

Form of education full-time

Rostov-on-Don  
2023

## I. GOALS AND OBJECTIVES OF MASTERING THE DISCIPLINE

**Goals** mastering the discipline: the formation of scientific knowledge and its based on the ability to identify deviations in the state of the organ of vision from the age norm in adolescents from 15 to 18 years old and in persons over the age of 18 years; carrying out prevention and providing first aid to patients, taking into account further training and professional activities.

### Tasks:

- acquisition of knowledge by students in the field of ophthalmology;
- training students to recognize basic clinical signs, symptoms, syndromes when examining a patient, allowing to make a correct preliminary diagnosis, determine the severity of the disease and its possible complications;
- teaching students how to choose optimal modern methods diagnosis and treatment of patients with ophthalmological diseases and drawing up an algorithm for differential diagnosis;
- training students to provide first aid to ophthalmic patients medical assistance in case of emergency conditions;
- teaching students how to prepare medical documentation (outpatient medical card, certificate of incapacity for work, statistical certificate, etc.);
- developing communication skills with patients, taking into account ethics and deontology depending on the identified pathology and characterological characteristics of patients;
- developing student communication skills with the team.

**II. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE** The process of studying the discipline is aimed at developing the following competencies in accordance with the Federal State Educational Standard of Higher Education and the EP of Higher Education in this specialty:

OPK 4 – Able to use medical devices provided for in the procedure for providing medical care, as well as conduct examinations of the patient in order to establish a diagnosis

GPC 7 - Able to prescribe treatment and monitor its effectiveness and safety

### III. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF EP VO

PC 3-Prescribing treatment and monitoring its effectiveness and safety

3.1. The academic discipline “Ophthalmology” is the basic discipline B1.B.35.

3.2. The formation of the above competencies is facilitated by the study of the following previous disciplines:

- History of Medicine
- Bioethics
- Biochemistry

- Anatomy
- Histology, embryology, cytology
- Normal physiology
- Pharmacology
- Pathophysiology, clinical pathophysiology

3.3. The discipline "Ophthalmology" creates the prerequisites for the formation of these competencies by the following disciplines:

- Therapy
- Endocrinology
- Nervous diseases
- Otorhinolaryngology

#### IV. CONTENT AND STRUCTURE OF THE DISCIPLINE Labor intensity of the discipline in 3 hours 108

##### 4.1. Sections of the discipline studied in the 9th semester

No. once <small>affairs</small> A	Section name	Number of hours					SRO*
		Total	Contact Job				
			L	W	HETC	LR	
Semester 9							
1	History and modern achievements of ophthalmology. Anatomy and physiology of the organ of vision. Research methods.	9	1		4		4
2	Functions of the organ of vision.	10	2		4		4
3	Physiological optics: clinical refraction and accommodation, their age-related characteristics.	10	2		4		4
4	Pathology of the eyelids, lacrimal organs, conjunctiva.	10	2		4		4
5	Pathology of the fibrous membrane of the eyeball.	10	2		4		4
6	Pathology of the choroid.	10	2		4		4
7	Pathology of the lens and vitreous body.	9	1		4		4
8	Pathology of intraocular pressure.	9	1		4		4
9	Pathology of the retina and optic nerve.	10	2		4		4
10	Pathology of the eyes in common diseases.	6	-		4		2
<small>e</small> 11	Trauma to the organ of vision. Orbital pathology.	9	1		4		4
12	Test repeating and generalizing lesson	6	-		4		2
Interim certification form (test with assessment)							

Total:	108	16	48	44
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**SRS-** independent work of students L-lectures

**WITH-** seminars (in accordance with the RUP)

**LR** -laboratory work (in accordance with the RUP)

**ETC-** practical exercises (in accordance with the RUP, they include clinical practical exercises)

## 4.2. Contact work

### Lectures

No. section Ia	No. lectures	Lecture topics	Qty hours
Semester 9			
1	1	History and modern achievements of ophthalmology	1
2	2	Functions of the organ of vision.	2
3	3	Physiological optics: clinical refraction and accommodation, their age-related characteristics.	2
4	4	Pathology of the eyelids, lacrimal organs, conjunctiva.	2
5	5	Pathology of the fibrous membrane of the eyeball.	2
6	6	Pathology of the choroid.	2
7	7	Pathology of the lens and vitreous body.	1
8	8	Pathology of intraocular pressure.	1
9	9	Pathology of the retina and optic nerve.	2
10	10	Trauma to the organ of vision. Orbital pathology.	1

### Seminars, practical work

No. section	No. ETC	Seminar topics, practical work	Qty hours	Forms of current control
Semester9				
1	1	Anatomy and physiology of the organ of vision. Research methods.	4	Test control, situational tasks, test interview
2	2	Functions of the organ of vision.	4	Test control, situational tasks, test interview
3	3	Physiological optics: clinical refraction and accommodation, their age-related characteristics.	4	Test control, situational tasks, test interview
4	4	Pathology of eyelids, lacrimal organs, conjunctiva.	4	Test control, situational tasks, test interview

5	5	Fibrous pathology membranes of the eyeball.	4	Test control, situational tasks, test interview
6	6	Vascular pathology shells.	4	Test control, situational tasks, test interview
7	7	Pathology of the lens and vitreous body.	4	Test control, situational tasks, test interview
8	8	Pathology of intraocular pressure.	4	Test control, situational tasks, test interview
9	9	Pathology of the retina and optic nerve.	4	Test control, situational tasks, test interview
10	10	Pathology of the eyes in common diseases.	4	Test control, situational tasks, test interview
eleven	eleven	Trauma to the organ of vision. Orbital pathology.	4	Test control, situational tasks, test interview
12	12	Test repeating-general lesson	4	Test interview

### 4.3. Independent work of students

No. section	Type of independent work students	Qty hours	Forms of current control
Semester9			
1	History and modern achievements of ophthalmology.	4	Test control, test interview
2	Anatomy and physiology of the organ of vision. Research methods.	4	Test control, test interview
3	Functions of the organ of vision.	4	Test control, test interview
4	Physiological optics: clinical refraction and accommodation, their age-related characteristics.	4	Test control, test interview
5	Pathology of the eyelids, lacrimal organs, conjunctiva.	4	Test control, test interview
6	Pathology of the fibrous membrane of the eyeball.	4	Test control, test interview
7	Pathology of the choroid.	4	Test control, test interview
8	Pathology of the lens and vitreous body.	4	Test control, test interview
9	Pathology of intraocular pressure.	4	Test control, test interview
10	Pathology of the retina and optic nerve.	4	Test control, test interview
eleven	Pathology of the eyes in common diseases.	2	Test control, test interview
12	Trauma to the organ of vision. Orbital pathology.	4	Test control, test interview

No. section	Type of independent work students	Qty hours	Forms of current control
13	Test repeating and generalizing lesson	2	

**V. ASSESSMENT MATERIALS FOR CURRENT CONTROL, INTERMEDIATE CERTIFICATION** (are an appendix to the work program).

**VI. ASSESSMENT FUND FOR CURRENT CONTROL, INTERMEDIATE CERTIFICATION**

**6.1. Main literature.**

1. Nesterov A.P. Eye diseases: textbook for medical universities / Nesterov A.P., Malov V.M. - ed. 4th, revised and additional – M.: Leader-M, 2008. - 316 p.

**6.2. Additional literature.**

1. Egorov E.A. Emergency ophthalmology: textbook. allowance / Egorov E.A.. - M.: GEOTAR-MEDIA, 2006 (EBS Cons. stud.).

2. Sidorenko E.I. Ophthalmology: a textbook for medical students. universities / Sidorenko E.I.. - M.: GEOTAR-MED, 2006. - 408 p.

**6.3. Internet resources**

	<b>ELECTRONIC EDUCATIONAL RESOURCES</b>	<b>Access to the resource</b>
	<b>Electronic library RostSMU.</b> - URL: <a href="http://109.195.230.156:9080/opac/">http://109.195.230.156:9080/opac/</a>	Access is not limited
	<b>Student Advisor</b> [Kits: "Medicine. Healthcare. IN"; "Medicine. Healthcare. SPO"; "Psychological Sciences"]: Electronic library system. – Moscow: Politekhresurs LLC. - URL: <a href="https://www.studentlibrary.ru">https://www.studentlibrary.ru</a> + opportunities for inclusive education	Access is not limited
	<b>Scientific electronic library eLIBRARY.</b> - URL: <a href="http://elibrary.ru">http://elibrary.ru</a>	Open access
	<b>National Electronic Library.</b> - URL: <a href="http://neb.rf/">http://neb.rf/</a>	Access from computers libraries
	<b>Russian education. Single window of access /Federal portal.</b> -URL: <a href="http://www.edu.ru/">http://www.edu.ru/</a> . – New educational environment.	Open access
	<b>Electronic Library of the Russian Foundation for Basic Research (RFBR).</b> -URL: <a href="http://www.rfbr.ru/rffi/ru/library">http://www.rfbr.ru/rffi/ru/library</a>	Open access
	<b>Federal Electronic Medical Library of the Russian Ministry of Health.</b> - URL: <a href="http://femb.ru/ml.ru/femb/">http://femb.ru/ml.ru/femb/</a>	Open access
	<b>CyberLeninka:</b> scientific electron. beep. -URL: <a href="http://cyberleninka.ru/">http://cyberleninka.ru/</a>	Open access
	<b>Dictionaries And encyclopedias on Academician.</b> - URL: <a href="http://dic.academic.ru/">http://dic.academic.ru/</a>	Open access

	<b>Official Internet portal of legal information.</b> - URL: <a href="http://pravo.gov.ru/">http://pravo.gov.ru/</a>	Open access
	<b>World Health Organization.</b> - URL: <a href="http://who.int/ru/">http://who.int/ru/</a>	Open access
	<b>Ministry of Science and Higher Education</b> Russian Federation. - URL: <a href="http://minobrnauki.gov.ru/">http://minobrnauki.gov.ru/</a>	Open access

## 6.4. Guidelines for students on mastering disciplines

### 1. Anatomy of the organ of vision: textbook / A.N. Epikhin, N.A.

Epikhin, Yu.N. Epikhin; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 82 p.

### 2. Modern research methods in ophthalmology: educational

allowance / A.N. Epikhin, Yu.N. Epikhina, N.A. Epikhin; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 62 p.

### 3. Astigmatism in cataract surgery: Educational manual /

A.N. Epikhin, N.A. Epikhin, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 54 p.

### 4. Pathology of the eyelids and conjunctiva (“red eye syndrome without pain”):

textbook / A.N. Epikhin, R.V. Gaibaryan, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 66 p.

### 5. Pathology of the lacrimal drainage system: textbook / A.N. Epikhin,

Yu.N. Epikhina, N.A. Epikhin; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/a: Publishing house of Rostov State Medical University, 2016. – 60 p.

### 6. Pathology of the fibrous membrane: keratoplasty and

keratoprosthetics: textbook / A.N. Epikhin, N.A. Epikhin, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 72 p.

### 7. Pathology of the fibrous membrane: “red eye with pain” syndrome:

textbook for fourth-year students of all faculties (added and republished) / A.N. Epikhin, I.V. Shlyk, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education RSLTGMU of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 40 p.

### 8. Pathology of the fibrous membrane: textbook / A.N. Epikhin,

Yu.N. Epikhina, N.A. Epikhin; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/a: Publishing house of Rostov State Medical University, 2016. – 42 p.

### 9. Pathology of the choroid (red eye syndrome with

pain”): textbook / A.N. Epikhin, I.V. Shlyk, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house RostGMU, 2016. – 34 p.

### 10. Pathology of the lens and vitreous body: clinical

manifestations of vitreous pathology: textbook / A.N. Epikhin, Ya.V. Krasnov, Yu.N. Epikhina, N.A. Epikhin; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/a 6 Publishing house Rostov State Medical University, 2016. – 36

**11. Anatomy and physiology of the organ of vision. Research methods:** gonioscopy and ultrasound biomicroscopy in the clinical examination of the anterior segment of the human eye: educational manual / A.N. Epikhin, Yu.N. Epikhina, L.A. Boldyreva, N.A. Epikhin; Federal State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – 2nd ed. Revised and expanded. – Rostov n/d: Publishing house of Rostov State Medical University, 2018. – 64 p.

**12. Pathology of the retina and optic nerve: anatomical and** clinical features of ischemic conditions of the retina and optic nerve: textbook / A.N. Epikhin, I.V. Shlyk, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. - Rostov n/a: Publishing house of Rostov State Medical University, 2016. – 74 p.

**13. Pathology of the retina and optic nerve: complex hardware** Diagnosis of retinal pathology: textbook / A.N. Epikhin, Yu.N. Epikhina, R.V. Gaibaryan, Yu.F. Bondarenko; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 72 p.

**14. Pathology of the retina and optic nerve: edematous maculopathies:** textbook / A.N. Epikhin, R.V. Gaibaryan, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 50 p.

**15. Pathology of the retina and optic nerve: retinopathy** premature babies: educational and methodological manual / A.N. Epikhin, Yu.N. Epikhina, L.A. Boldyreva, R.V. Gaibaryan; Federal State Budgetary Educational Institution of Higher Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – 2nd ed. Revised and expanded. – Rostov n/d: Publishing house of Rostov State Medical University, 2018. – 67 p.

**16. Pathology of the eyes in common diseases: ophthalmopathology in** diabetes mellitus: textbook / A.N. Epikhin, R.V. Gaibaryan, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 82 p.

**17. Eye pathology in common diseases: endocrinology: educational** manual – 2nd revised and expanded / A.N. Epikhin, R.V. Gaibaryan, Yu.N. Epikhina; State Budgetary Educational Institution of Higher Professional Education Rost State Medical University of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/a: Publishing house of Rostov State Medical University, 2016. – 56 p.

**18. Eye pathology in general diseases: ophthalmological** manifestations of the human immunodeficiency virus: textbook / A.N. Epikhin, L.A. Boldyreva, I.V. Shlyk, N.A. Epikhin; State Budgetary Educational Institution of Higher Professional Education RosiGMU of the Ministry of Health of Russia; Department of Ophthalmology. – Rostov n/d: Publishing house of Rostov State Medical University, 2016. – 68 p.