



SUBJECT (MODULE) DESCRIPTION

Subject (Module) title	Code
Eye diseases	AKIU3115

Lecturer (s)	Department (s)
Coordinating: Assoc. Prof. Rimvydas Stanislovas Ašoklis, PhD Other: lecturers at the Clinic of Ear, Nose, Throat and Eye Diseases of the Institute of Clinical Medicine	Vilnius University, Faculty of Medicine, Institute of Clinical Medicine, Ear, Nose, Throat and Eye Diseases Clinic, Santariškių str. 2, Vilnius, Lithuania

The Stage of Studies	The level of the Subject (Module)	The Type of the Subject (Module)
Integrated studies (Stage I-II)	-	Compulsory

Implementation form	Term of performance	Language(-es) of performance
Lectures and seminars in auditorium and/or remotely. Acquisition of skills through performing ophthalmic examinations and working with visual material. Practical trainings in auditorium, examination rooms, wards and operating rooms of the in-patient department of eye diseases and out-patient clinics.	VI semester	Lithuanian, English

Requirements for the students	
Preconditions: Students must have taken the following courses: Human Anatomy, Human Histology, Human Biology, Human Physiology, Propaedeutics of Internal Diseases and basics of Clinical Oncology, Pharmacology, Pathology, Development of Practical Nursing Skills, Applied Anatomy and Fundamentals of Radiology, Latin and Professional Language.	Collateral requirements (if applicable): None

The Scope of the Subject (Module) in Credits	Total Workload of a Student in Hours	Contact Work in Hours	Self-study Hours
4 credits	108	54	54

Purpose of the Subject (Module): competences to be developed during the studies
Purpose: To understand the physiology and anatomy of the eye and to know the basics of the aetiology, pathogenesis, clinical presentation, diagnosis, and treatment of common ophthalmic diseases. To know the principles of first aid in cases of eye burns, penetrating eye injuries, acute glaucoma attacks, and acute retinal vascular occlusion. Upon completion of the course, students must be able to take a medical history from a patient with eye diseases, develop an examination and treatment plan, test visual acuity, and understand the principles of clinical refraction, color vision, binocular vision, intraocular pressure, and visual field testing.

Communication will take place on the MS Teams platform.		
Objectives of the Subject (Module) of the Studies	Methods of the Studies	Assessment Methods
General Competences		
Act with integrity and ethical obligations; be emphatic; develop critical thinking; be creative and initiative in achieving goals; be capable of communicating with others.	Lectures in the auditorium and/or remotely. Practical trainings and seminars in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Group discussion.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral interview.
Assess the scope of personal competence and, if necessary, ask for assistance; address the problems and take decisions; communicate and work jointly in the team with specialists from other fields and experts in other sciences.	Lectures in the auditorium and/or remotely. Practical trainings and seminars in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Group discussion.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral interview.
Subject Competences		
Know the basics of the clinical and surgical anatomy of the eye globe and its adnexa. Be able to relate anatomic features of the eye with the clinical course of eye diseases. Have knowledge about the physiology, healthy status and main pathologies of central, peripheral, colour and binocular vision. Known the impact of the pathogenesis of eye diseases on changes in eye function. Know basics of the history of ophthalmology.	Lectures in the auditorium and/or remotely. Practical training in the auditorium with analysis of moulage and visual material. Training in the department of eye diseases and examination rooms. Learning the methods of examination under the supervision of a lecturer, performance of central, peripheral, colour and binocular vision tests.	Continuous assessment of practical training in the auditorium and examination rooms. Individual and group oral examination. In the end of the subject, a written exam according to in advance planned and presented procedure.
Understand the basics of the optical eye system and physical refraction. Know the physiology of clinical refraction and its types. Know the main methods of refractometry, clinical presentation of refractive errors and principles of their optic correction. Have knowledges about the principles of prescription of glasses and contact lenses. Understand the physiology and disorders of accommodation. Know the basics of the anatomy of the extraocular muscles, be able to diagnose strabismus and know its main types as well as the essentials of treatment.	Practical training in the in-patient department of eye diseases, examination rooms and out-patient clinic or remotely. Presentation and discussion of the topics prepared by students, analysis of practical and visual material, group discussion. Learning examination techniques under the supervision of a lecturer, performing autorefractometry, measuring interpupillary distance. Learning the principles of prescribing glasses and contact lenses.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.
Have knowledge about the aetiology, pathogenesis, clinical presentation, diagnostics, principles of medical and surgical treatment, complications and prevention of congenital and acquired diseases of eyelids, conjunctiva, orbit and lacrimal system. Know the peculiarities of the above-mentioned diseases in adults and children. Know when to refer a patient with ocular adnexal diseases to an ophthalmologist.	Lectures in the auditorium and/or remotely, theoretical material is presented. Practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed

	of practical and visual material, analysis of case reports, group discussion. Learning examination techniques under the supervision of a lecturer, eyelid eversion, examination of conjunctiva, applying local eye medications (drops and ointment), observation of tear duct irrigation.	procedure.
Know the aetiology, pathogenesis, clinical presentation, diagnostics, medical and surgical treatment, complications and prevention of congenital and acquired corneal diseases. Know the criteria of corneal donor selection and indications for corneal transplantation. Understand the principles of treatment in case of corneal graft failure. Have knowledge about the systemic conditions that can affect cornea. Know when to refer a patient with corneal diseases to an ophthalmologist. Know the basic principles of refractive surgery.	Lectures in the auditorium and/or remotely, theoretical material is presented. Practical training in the auditorium, in-patients department of eye diseases, examination rooms of corneal diseases and contact lenses, out-patient clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis of practical and visual material. Discussion of case reports, examination and treatment plan, group discussion. Remote observation of eye surgery in the auditorium using the archived video material. Learning the examination techniques under the supervision of a lecturer, corneal sensitivity testing, corneal fluorescein staining.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.
Know the aetiology, pathogenesis, clinical presentation, diagnostics, medical and surgical treatment, complications and prevention of congenital and acquired uveal tract diseases. Know systemic conditions that can affect uveal tract. Have knowledge about the epidemiology, clinical presentation and principals of treatment of intraocular tumours in adults and children. Know the significance and indications of the fluorescent angiography for diagnosis and treatment of uveal tract disease.	Lectures in the auditorium and/or remotely, theoretical material is presented. Practical training in the auditorium, the in-patient department of eye diseases, examination rooms, out-patients clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis of visual material. Analysis of case reports, evaluation of ophthalmological tests, drawing up of examination and treatment plan. Group discussion.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.

Have knowledge about the aetiology, pathogenesis, clinical presentation and diagnostics of congenital and acquired lens diseases. Understand the principles of surgical treatment of lens diseases. Know, the different types of cataract surgery and intraocular lenses, indications for surgery, intraoperative and postoperative complications. Know the principles of preoperative management of the patients undergoing cataract surgery and the basics in post-surgery care. Know aphakia and its treatment.	Lectures in the auditorium and/or remotely, theoretical material is presented. Practical training in the auditorium, the in-patient department of eye diseases, examination rooms, out-patient clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis of practical and visual material. Remote observation of eye surgery in the auditorium using the archived video material. Analysis of case reports, evaluation of the slit-lamp images of the anterior segment of the eye, discussion of examination and treatment plan. Group discussion.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.
Know the aetiology, pathogenesis, clinical presentation, diagnostics, medical and surgical treatment, complications and prevention of congenital and acquired retina diseases. Know systemic conditions that can affect retina. Have knowledge about diagnosis and treatment of age related macular degeneration, diabetic retinopathy, hypertensive retinopathy, retinopathy of prematurity, central retinal artery and vein occlusion and retinitis pigmentosa. Know when to refer a patient with retinal diseases to an ophthalmologist. Understand the principles of diagnosis of optic neuropathies, neuritis and papilledema.	Lectures in the auditorium and/or remotely, theoretical material is presented. Practical training in the auditorium, the in-patient department of eye diseases, examination rooms, out-patient clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis of practical and visual material. Analysis of case reports, discussion of examination and treatment plan, evaluation of ophthalmological tests, group discussion. Remote observation of eye surgery in the auditorium using the archived video material.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.
Understand the physiology of aqueous humor circulation in eye and the concept of intraocular pressure, hypertension and hypotony. Know the principles and methods of tonometry. Have knowledge about the aetiology, pathogenesis, classification, clinical presentation, diagnostics, medical and surgical treatment, complications and prevention of congenital and acquired glaucoma. Know the clinical presentation, diagnostics, first aid and treatment methods of acute angle-closure glaucoma. Know the principles of long-term care of glaucoma patients.	Lectures in the auditorium and/or remotely, theoretical material is presented. Practical training in the auditorium, the in-patient department of eye diseases, examination rooms, out-patient clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis of practical and visual material. Analysis of case reports, discussion of examination and treatment plan, discussion of scientific articles. Performance of non-contact tonometry, evaluation of ophthalmoscopic findings of the optic nerve and visual field. Remote observation of eye surgery in the auditorium using the archived video material. Group discussion.	Continuous assessment of practical training in the auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.
Know the aetiology, pathogenesis, classification, clinical presentation, diagnostics, medical and	Practical training in the auditorium, in-patient	Continuous assessment of practical training in the

surgical treatment, complications and prevention of ocular traumas (chemical and thermal injuries, closed and open injuries of the eye globe). Know the first aid principles in the cases of ocular trauma and be able to provide first aid thereof.	department of eye diseases, examination rooms, out - patients clinic and/or remotely. Presentation and discussion of the topics prepared by students, analysis of practical and visual material. Analysis of case reports, learning of the first aid of ocular traumas. Remote observation of eye surgery in the auditorium using the archived video material. Group discussion.	auditorium, in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral examination. In the end of the subject, a written exam according to a predetermined and discussed procedure.
Be able to communicate with ophthalmological patients and their relatives, collect anamnesis of the disease, create an examination and treatment plan. Be able to use modern information technologies, properly fill in and store medical records. Learn to keep medical confidentiality. Know how to search for the necessary medical literature, evaluate it critically and apply scientific based evidence in practice.	Practical training in the auditorium and/or remotely. Practical training in the in-patient department of eye diseases, examination rooms and out-patient clinic. analysis of case reports. Group discussion. Presentation and discussion of the topics prepared by students, analysis of practical and visual material.	Continuous assessment of practical training in the auditorium, the in-patient department of eye diseases, examination rooms and out-patient clinics. Individual and group oral interview.

Themes / Topics	Contact Workload in Hours							Time and Tasks of Self-study	
	Lectures	Consultations	Seminars	Practical training	Laboratory works	Practice	Total Contact work	Self-study	Tasks
1. Anatomy and physiology of the eye globe and ocular adnexa. Physiology, examination methods and disorders of central, peripheral, colour, contrast and binocular vision.	2	-		5	-	-	7	7	To be prepared for a seminar on the anatomy and physiology of the eye. To know the methods of investigation of visual functions and the principals of their evaluations.
2. Clinical refraction of the eye, methods of investigation. Refractive errors. Presbyopia. Accommodation. Paediatric ophthalmology: features of paediatric ophthalmological examination, most common paediatric ocular diseases and their treatment methods. Causes, types, examination methods and treatment principles of strabismus.	-	-	-	6	-	-	6	6	To be prepared for the seminar on clinical refraction and paediatric eye diseases. To have knowledge about the refractive errors, and principals of their treatment. To know the anatomy of the extraocular muscles and types, diagnostic methods and principals of treatment of strabismus.
3. Diseases of the eyelids and conjunctiva: aetiology, clinical presentation, methods of investigation and treatment. Malposition of the eyelids, chalazion, blepharitis, conjunctivitis,	2	-	-	5	-	-	7	7	To be prepared for the seminar on eyelid, conjunctival and orbital diseases, to

tumours of the eyelids and conjunctiva. Anatomy of the orbit. Principals of diagnosis and treatment of the orbital cellulitis. Disorders of the lacrimal system. Methods of examination, principles of diagnosis and treatment of the dry eye disease, dacryocystitis, dacryoadenitis.									have knowledge about their diagnosis and treatment. To know the anatomy of lacrimal system and methods of its investigation, to have knowledge about the diagnosis and treatment of main lacrimal diseases.
4. Corneal diseases: aetiology, clinical picture, methods of investigation and treatment. Keratitis, keratoconus, keratoglobus. Corneal transplantation. Refractive surgery.	1	-	-	5	-	-	6	6	To be prepared for a seminar on main corneal disease, to have knowledge about their diagnosis and treatment. To know the indications and principal methods of corneal transplantation as well as basics of refractive surgery.
5. Diseases of the lens. Cataract, its pathophysiology, types, clinical presentation and treatment methods. Cataract surgery, intraocular lenses, postoperative complications pre and postoperative care. Abnormalities of lens shape and position.	1	-	3	-	-	-	4	4	To be prepared for a seminar on lens diseases, to have knowledge about their diagnosis and treatment. To know the anatomy of the lens, types of cataract surgery and intraocular lenses as well as postoperative complications and care.
6. Glaucoma. Anatomy and physiology of ocular drainage system. Epidemiology and classification of glaucoma. Methods of investigation, diagnostic features and principals of medical and surgical treatment of glaucoma. Diagnosis, first aid and treatment of acute angle closure glaucoma.	2	-	5	-	-	-	7	7	To be prepared for a seminar on glaucoma, to have knowledge about aqueous humor drainage system, classification, pathogenesis, diagnosis and principals of medical and surgical treatment of glaucoma. To know the clinical presentation, first aid and treatment of acute angle closure attack.
7. Diseases of the retina and optic nerve: pathogenesis, aetiology, clinical presentation, methods of investigation and treatment. Age related macular degeneration, central retinal artery and vein occlusion, diabetic retinopathy, hypertensive retinopathy, retinal detachment, retinopathy of prematurity, retinitis pigmentosa, optic neuritis, papilledema.	2	-	5	-	-	-	7	7	To be prepared for a seminar on retinal diseases, to have knowledge about their pathogenesis, clinical presentation, methods of investigation and treatment. To know the principals of diagnosis and treatment of optic neuritis and papilledema.
8. Uveal diseases: classification, aetiology, clinical	2	-	5	-	-	-	7	7	To be prepared for a

presentation, methods of investigation and treatment of uveitis. Principals of diagnosis and treatment of choroidal melanoma.									seminar on uveal diseases. To have knowledge about classification, aetiology, clinical presentation, methods of investigation and treatment of uveitis. To know the principals of diagnosis and treatment of choroidal melanoma.
9. Ocular trauma: classification, diagnosis, first aid and principals of treatment. Closed and open injuries of the eye globe. Chemical ocular injuries. Eyelid trauma. Ocular damage induced by ultraviolet radiation.	-	-	3	-	-	-	3	3	To be prepared for a seminar on ocular traumas, to have knowledge about their classification, diagnosis, first aid and principals of treatment.
Iš viso	12	-	21	21	-	-	54	54	

Assessment Strategy	Weight	Reporting	Assessment Criteria
Exam (Test)	100%	At the end of semester	The exam consists of 30 questions, each worth a maximum of 1 point, for a total of 30 points (100% of the exam's weight). Some questions have one correct answer (scored as 1 or 0 points), while others have multiple possible correct answers (scored proportionally based on the number of correct answers given). The test score is calculated by summing the points earned for each question: a fully correct answer is awarded the full point, while a partially correct answer is awarded a proportional portion of the point (the portion of correct answers is added, and the portion of incorrect answers is subtracted). The total score is converted to a grade according to the levels listed below. The final grade is rounded to the nearest whole number according to mathematical rules. 10 (ten): excellent knowledge. Points range: 28.5–30 points. 9 (nine): very good knowledge. Points range: 25.5–28.5 points. 8 (eight): good knowledge. Points scale: 22.5–25.5 points. 7 (seven): average knowledge. Points scale: 19.5–22.5 points. 6 (six): satisfactory knowledge. Points range: 16.5–19.5 points. 5 (five): minimally satisfactory knowledge. Points range: 13.5–16.5 points. 4 and below: unsatisfactory knowledge. Points range: < 13.5 points.

Author	Year of Publication	Title	No of the Periodical or Volume of the Publication	Publisher or Web link
Obligatory literature				
John F. Salmon	2024	Kanski's Clinical Ophthalmology. A Systematic Approach.	10th edition	Elsevier
R. Žemaitienė, D. Žaliūnienė, I. Janulevičienė ir kt.	2021	Oftalmologijos pagrindai		LSMU Akademinė leidyba
Additional sources				
American Academy of	2025-	American Academy of	(Section 1-13)	Elsevier

Ophthalmology	2026	Ophthalmology. Basic and Clinical Science Course (BCSC).		
University of Iowa Department of Ophthalmology and Visual Sciences in Iowa City		https://eyerounds.org/		University of Iowa