



OPTOMETRIST

1479

Educational institution	TALLINN HEALTH CARE COLLEGE
Code of educational institution	70003980
Title of the curriculum	<i>OPTOMETRIST</i>
Title of the curriculum in English	OPTOMETRIST
Higher education level	Professional higher education
Curriculum code in the Estonian Education Info-System (EHIS)	1479
Data about the right for conducting studies in the curriculum	Curriculum belongs to the “Health Care” study programme group in which there is a right to conduct studies. 11.07.2019 Regulation No 62 “Standard of Higher Education” issued by the Government of Estonia.
Primary registration of the curriculum	05.09.2002
Approval date of the version of the curriculum in the educational institution	The curriculum has been approved by the Council of Optometrist Curriculum on 08.05.2020. The curriculum has been approved by the Tallinn Health Care College Council with Decision No 2.5 from 26.05.2020.

Study area	Health and well-being
Field of studies	Health
Curriculum group	Health Care
Main field of study (or studies) of the curriculum and their volume (ECTS)	Optometrist 210 ECTS
Minor field (or fields) of study, other possible specializations in the curriculum and their volume (ECTS)	The curriculum has no minor fields of study or specializations
Forms of study	Daytime learning
Nominal length of studies	3.5 years
Volume of the curriculum in European credit point system (ECTS)	210
Volume of compulsory subjects (ECTS)	205
Volume of elective subjects (ECTS)	5

Study language	Estonian
Other languages needed for achieving the learning outcomes	English
Admission requirements	Certificate of the secondary or vocational secondary education or equivalent qualification
Aim of the curriculum	
The aim of the Curriculum of Optometrist is to train specialists with professional higher education who evaluate and correct visual acuity – optometrists whose knowledge and skills enable them to work in optics shops, in clinics dealing with vision correction and treatment, in occupational health care enterprises, in research institutions dealing with vision ergonomics and visual perception, and in wholesale firms of optics products.	

Learning outcomes of the curriculum
<ol style="list-style-type: none"> 1. Evaluates client’s visual acuity and determines the most suitable devices for correcting client’s vision. 2. Fits and assembles spectacles and other devices for vision correction (except contact lenses) accordingly with prescribed parameters and client’s needs. 3. Identifies the pathologies of the visual system, and if necessary, refers the client to the ophthalmologist’s. 4. Recommends and fits vision rehabilitation aid. 5. Handles on professional level all work instruments and devices listed in optometrist’s professional standard and can maintain them, if needed. 6. Collects and interprets new information using suitable methods and instruments. 7. Behaves ethically and tolerantly with all persons, irrespective of their origin or national identity. 8. Improves oneself professionally and orients in professional innovations.

Conditions of fulfilling the curriculum	
Curriculum contains:	
7 modules (210 ECTS)	
Optics and Spectacles	29 ECTS
Vision Examination and Correction	70 ECTS
Ophthalmology and Contact Lenses	35 ECTS
Human Studies	18 ECTS
Professional Development	33 ECTS
Research Methodology	20 ECTS
Elective Subjects	5 ECTS
Volume of Practical Training	50 ECTS
Volume of Graduation Thesis	5 ECTS
Volume of Elective Subjects	5 ECTS

Options for passing the curriculum	<p>Students will choose elective subjects to the extent of 5 ECTS. Elective subject may be chosen from the module of Elective Subjects of their curriculum, or from the elective module of other curriculum offered by the College. Instead of the module the student may choose the elective subjects out of their curriculum to the extent of same volume.</p> <p>The student may choose from the written graduation thesis or the final examination as their last performance on completing the Curriculum of Optometrist.</p>
Graduation requirements	Completing the curriculum in full and receiving a positive grade in defending the graduation thesis or a positive grade for the final examination.
Type of diploma issued upon graduation	College graduate is awarded the Diploma of Professional Higher Education and <i>Terviseteaduse bakalaureus</i> Bachelor of Science in Health Sciences (BSc)
Documents issued upon graduation	Diploma of Professional Higher Education with academic transcript and Diploma Supplement in English.
Possibilities for continuing studies	Master`s studies
Access to labour market	Has acquired the learning outcomes for working as an optometrist.
Additional information	http://www.ttk.ee/et/kontaktileht

LETTER OF EXPLANATION FOR THE CURRICULUM OF OPTOMETRIST

Since the academic year 2020/2021, the following changes have been introduced to the Curriculum of Optometrist:

1. Wording of the aims and learning outcomes of the subjects has been corrected.
2. The modules of the curriculum have been amended as follows:
 - 2.1. **Optics and Spectacles** 34 ECTS, new volume is 29 ECTS; volumes of the subjects of the module were amended as follows:
 - 2.1.1. Theory of Ophthalmic Lenses, current volume 5 ECTS (was 6 ECTS);
 - 2.1.2. Optics, current volume 6 ECTS (was 9 ECTS);
 - 2.1.3. Assembling of Spectacles, current volume 7 ECTS (was 6 ECTS);
 - 2.1.4. Practical Training – Assembling of Spectacles, current volume 6 ECTS (was 8 ECTS).
 - 2.2. **Vision Examination and Correction** 68 ECTS, current volume 70 ECTS; volumes of the subjects of the module were amended as follows:
 - 2.2.1. Examination of Near Vision II, current volume 4 ECTS (was 5 ECTS);
 - 2.2.2. Practical Training – Eye Examination, current volume 24 ECTS (was 21 ECTS).
 - 2.3. **Professional Development**, 30 ECTS, current volume 33 ECTS; volumes of the subjects of the module were amended as follows:
 - 2.3.1. Introduction to Practical Training (Optical Company), current volume 4 ECTS (was 3 ECTS);
 - 2.3.2. A new subject was added – Health Care Technology and e-Health, volume 2 ECTS.

The intention of changing subject titles in modules and bringing forth single subjects in the curriculum is to guarantee a better understanding for students about the subjects taught, and a more comfortable organizing of general studies.

Changes in the curriculum are based on the feedback from the students and the lecturers, and suggestions and remarks in the accreditation report.

In the Curriculum of Optometrist, the title of the curriculum, admission requirements, nominal length and volume of studies, study language and specialization options have not been changed.

THE EXPECTED FIELD OF ACTIVITY OF THE GRADUATES

An optometrist is a first level health care specialist that takes care of people's eyes and their visual system, prescribes and fits corrective optical devices, if necessary refers the client to the ophthalmologist's and/or orthoptist's, and carries out necessary activities for visual system rehabilitation.

Based on the profile of the curriculum, the professional activities of optometrists are related to work in optics shops, in clinics and in health care institutions.

BASES OF THE CURRICULUM AND ORGANIZATION OF PRACTICAL TRAINING

The Professional Standard of Optometrist has been taken as a groundwork for drawing up the current curriculum, which establishes through professional competencies that an optometrist is a specialist with professional higher education, who:

- knows the specific differences resulting from eye structure and incomplete functioning that influence visual acuity and visual perception, and can correct these according to needs;
- knows different optical instruments for correcting visual acuity, and can recommend and fit them if necessary;
- is able to evaluate adequately the person's visual needs by proceeding from their behavioural or working habits and needs;
- is able to assemble spectacles with different purpose and structure, and to repair them if needed;
- knows different optical and non-optical instruments for people with low vision, and can recommend and fit them if necessary;
- knows the most common eye diseases and is competent for recommending ophthalmologic consulting.

In professional activity, the optometrist is expected to have the following qualities: precision, correctness, commitment to one's speciality, following of profession ethics, stress resistance, ability for decision making, sense of responsibility and good communication skills.

According to the orientation of study program, the training of optometrists is oriented primarily for working in optics stores.

The aim of the curriculum is to provide contemporary knowledge about society together with speciality studies, in order to support the growth in the student's professional identity and promote the graduates' managing in labour market.

The curriculum proceeds from the following legal acts and basic documents of the profession:

- Standard of Higher Education, Decree No 62 of the Government of Republic (July 11, 2019);
- Statute of Tallinn Health Care College, Decree No 28 of the Government of Republic (January 29, 2009);
- Professional Standard of Optometrist, level 6 (April 28th, 2016). Health Sector Skills Council's Decision No April 1st, 2016.)
- European Council of Optometry and Optics: requirements for euro-diploma in optometry (ECOO European Diploma in Optometry, ECOO General Assembly, 1998, London)

The philosophy of the curriculum results from the profession's philosophy, the starting point of which is mathematical-physical and also nature-scientific – associated with a health care specialty's ethical and acknowledged profession identity.

The organization of practical training included in the curriculum is arranged in cooperation with employers. The volume of practical training throughout the study period is 50 ECTS (23.8%). Both the students and employers get detailed information about the aims, duration and reporting of the practical training. The College mentors are in regular contact with mentors from the practical training institutions and with the employers. Practical training takes place during the whole study period and it supports the adopting of specialty subjects, and is connected with gradual understanding about the whole profession.

REQUIREMENTS SET FOR THE CURRICULUM QUALITY

The Curriculum of Optometrist conforms to the general course of activities of Tallinn Health Care College. The aims and outcomes of the curriculum correspond to the general requirements set for professional higher education, and also to the requirements guaranteeing optometrist's professional activity.

The contents and development of the curriculum are guided by the Curriculum Council, which consists of lecturers of Chair of Optometry, optometry students, alumni, employers' representatives and a foreign expert. Curriculum Council observes and analyses the contemporary development trends in optometry, and if needed, presents recommendations to the College Council for approving amendments in the curriculum and making enhancements in study environment.

Carrying out of studies in the frames of completing the curriculum is fully covered with teachers having higher education.

The required quality of professional training and the professional competency of the graduates are ensured by:

- curriculum design and compliance with professional standards;
- continuous development of curriculum content in accordance with developments in the area of vision correction;
- enhancing teaching methods according to new possibilities when using IT;
- raising of the professional and teaching competence of the lecturers by way of carrying out various refresher courses, professional practical training, and working as an exchange lecturer;
- development and deepening of cooperation between lecturers and students.

The development tendencies and strategy of optometrist curriculum are connected with factors that influence directly or indirectly optometry as a profession and as a specific health care area. The most important of them are:

- changes and developments in the course of action of optometrist's profession resulting from the development of optical correction instruments;
- changes in the legislation of health care system;
- changes in the legislation of educational system;
- health care reforms;
- technological changes in ophthalmology and health care;
- demographic changes in society.

MODULES AND SUBJECTS OF THE CURRICULUM, AIMS AND LEARNING OUTCOMES

Module title: Optics and Spectacles		Volume: 29 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire basic knowledge about the essence and spreading of light in our surrounding environment, and in optical environments with different character. 2. To get an overview about the refraction errors of human eye, their peculiarities, and about the possibilities and methods for correction 3. To acquire detailed knowledge about the structure, functioning mechanisms and using possibilities of different ophthalmic lenses. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Has an overview about the physical essence, qualities and spreading of light in different environments, is able to describe verbally and mathematically the possible situations connected with light and optics. 2. Identifies eye amethropies, and knows the scientific and practical aspects related with their correction. 3. Knows and is familiar with different optical lenses, lens systems and their construction principles, can analyse and express them graphically and mathematically. 4. Is able to handle simple optical measuring appliances and apparatuses for evaluating the characteristics of ophthalmic lenses. 5. Evaluates professionally and critically the impact of different ophthalmic lens constructions on human vision, and can prevent and/or correct possible problems. 6. Relying on one's knowledge and experience - evaluates different tasks and upcoming problems, and solves them by analysing independently different aspects of possible situation by proceeding from the necessities and well-being of the client. 	
Evaluation of module: subject-based method		
Subjects		
Code	Subject title	Volume
4OP20/SO	Introduction to Optometry	3 ECTS
Aim	To acquire the basic knowledge about eye amethropies and their correction possibilities, and to understand the essence of accommodation and its connection with eye's near and far point.	
Learning outcomes	<ol style="list-style-type: none"> 1. Is able to evaluate the range of human eye amethropy and possible ways of correction. 2. Describes human vision range and accommodation ability by relying on given parameters. 3. Knows the principles of measuring visual acuity. 	
Code	Subject title	Volume
4OP20/OL	Theory of Ophthalmic Lenses	5 ECTS

Aim	To acquire detailed knowledge about the different types and constructions of spectacle lenses, about their surface coatings and ways of improving their quality.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the vocabulary and terminology used in the profession, and is able to use it. 2. Knows the optic constructions of spectacle lenses and different ways of using the lenses. 3. Knows the methods of post-processing the quality of lenses with the aim of enhancing the optical qualities of spectacle lenses. 4. By proceeding from client's necessities, can recommend the best appliances for correcting their vision. 	
Code	Subject title	Volume
4OP20/OP	Optics	6 ECTS
Aim	To acquire basic knowledge about the essence and spreading of light in our surrounding environment, and in optical environments with different character.	
Learning outcomes	<ol style="list-style-type: none"> 1. Has an overview about the physical essence, qualities and spreading of light in different environments. 2. Is able to describe verbally and mathematically the possible situations connected with light and optics. 3. Knows and is familiar with different optical lenses, lens systems and their construction principles, can analyse and express them graphically and mathematically. 4. Is able to handle simple optical measuring appliances and apparatuses for evaluating the characteristics of ophthalmic lenses. 	
Code	Subject title	Volume
4OP20/PK1	Assembling of Spectacles I	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire knowledge and general safety requirements in order to use the lab for assembling spectacles. 2. To develop manual dexterity to make templates on hand grinding machine and semi-automatic grinding machine. 3. To acquire basic knowledge of processing and grinding of mineral glass. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows safety requirements valid in the assembling lab and user instructions of workbenches and machines. 2. Has basic knowledge on assembling of spectacles. 3. Is able to process mineral lenses. 4. Is able to use a dioptrimeter. 	
Code	Subject title	Volume
4OP20/PK2	Assembling of Spectacles II	3 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire basic knowledge about different hand-held tools and appliances that are used for assembling spectacles. 2. To acquire necessary manual skills for processing spectacle lenses and assembling spectacles. 	

	3. To acquire knowledge and skills for curving spectacles and minor repairing.	
Learning outcomes	<ol style="list-style-type: none"> 1. Handles different appliances and workbenches for assembling spectacles and processing spectacle lenses by proceeding from user manuals and safety measures. 2. Processes spectacle lenses made of different materials by following energy and environment saving principles. 3. Assembles spectacles with different complexity level according to given parameters and allowed tolerances. 4. Is able to fit spectacle lenses into various spectacle frames. 5. Conducts the bending, curving and minor repairing of spectacle frames according to client's needs. 	
Code	Subject title	Volume
4OP17/MÕ	Technology of Optical Materials and Frames	2 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire knowledge about the general and specific features of materials. 2. To acquire detailed knowledge about materials of ophthalmic spectacle lenses and of contact lenses and of spectacle frames, about their qualities and the possibilities for enhancing them. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the metal and plastic materials used in spectacle frame industry, knows their physical and chemical qualities. 2. Knows the physical, chemical and optical qualities of different materials of spectacle lenses and of contact lenses, and can recommend them according to the client's needs. 3. Has up-to-date knowledge about the technologies used for manufacturing spectacle frames and lenses in optics industry. 	
Code	Subject title	Volume
4OP20/PrPK	Practical Training – Assembling of Spectacles	6 ECTS
Aims	<ol style="list-style-type: none"> 1. To fix theoretical knowledge acquired from lectures. 2. To develop work methods and skills acquired during practical training. 3. To understand the importance of sense of commitment and responsibility when working in staff. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Is independently able to assemble spectacles with all varieties of frame structure and material in accordance with given parameters and tolerances. 2. Knows and follows the safety measures that are in use in optics workshop 3. Follows the principles of energy and environment saving in one's work. 4. Understands the importance of accuracy in one's performances and has a clear perception about assembling spectacles in optics workshop. 	

Module title: Vision Examination and Correction		Volume: 70 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire basic knowledge about the ametropies of human eye, and about the cognitive-psychological aspects of vision, and about binocular vision. 2. To acquire solid knowledge about the different methods of vision examination, and about the possibilities of correcting vision and using them during practical training; 3. To prepare the student for practical vision correction in study and work environment. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Interprets the client's visual needs and can find suitable methods for checking and correcting it. 2. Differentiates abnormal vision from normal, identifies different details and possible special cases. 3. Solves independently the theoretical and practical problems connected with vision. 4. Understands the differences of defining objective and subjective visual acuity and their importance in spectacle correction. 5. Knows the different forms of accommodation, convergence and refractive errors, and understands their impact on vision and on generating an image on the retina. 6. Is able to evaluate the influence of accommodation in the examination of vision, and can correct near vision. 7. Understands the mechanisms and possible anomalies of binocular and stereoscopic vision. 8. Is able to evaluate human binocular vision and possesses the theoretical and practical aspects of measuring the disposition of the eyes. 	
Evaluation of module: subject-based method		
Subjects		
Code	Subject title	Volume
4NUK17/NUA	Basics of Eye Examination	3 ECTS
Aim	To acquire basic knowledge about vision examination, anamnesis and objective findings.	
Learning outcomes	<ol style="list-style-type: none"> 1. On the basis of primary objective findings, recognizes most common refractive errors. 2. Acquires the basic knowledge about the primary necessary instruments for eye and vision examination and knows about their maintenance. 3. Acquires knowledge about the different stages of vision examination. 	
Code	Subject title	Volume
4NUK17/ONR	Objective Vision Examination and Retinoscopy	4 ECTS
Aim	To acquire detailed knowledge and skills for examining vision with objective methods.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the differences between subjective and objective vision examination. 2. Uses skilfully any equipment in eye specialist's office. 	

	3. Is able to evaluate the results of objective eye parameter measurement methods.	
Code	Subject title	Volume
4NUK20/SU1	Subjective Vision Examination I	5 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire detailed knowledge and skills about the essence of monocular vision, and about the methods of correcting it. 2. To acquire detailed knowledge about possible special cases related with visual acuity and the possibilities for solving these cases. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows various monocular methods of correction of ametropia. 2. Knows the differences between subjective and objective vision examination. 3. Uses skilfully any equipment in eye specialist's office. 4. Is able to evaluate the essence of visual acuity. 	
Code	Subject title	Volume
4NUK20/SU2	Subjective Vision Examination II	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire detailed knowledge and skills about the essence of binocular vision and about the methods of correcting it. 2. To acquire detailed knowledge and skills about the methods of binocular vision balancing. 3. To acquire detailed knowledge about possible special cases regarding visual acuity and how to solve them. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Is able to correct and balance refractive errors in binocular conditions. 2. Understands the influence of binocular disorders on vision. 3. Is able to recognize special cases related to vision and visual acuity in order to find best possible solutions. 	
Code	Subject title	Volume
4NUK20/LN1	Examination of Near Vision I	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire detailed knowledge about the essence of near vision. 2. To navigate in various near vision tests. 3. To acquire detailed knowledge and skills about the techniques to measure accommodation amplitude. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Measures the accommodation amplitude with different methods. 2. Knows and understands the influence of accommodation disorders on near vision. 3. Is able to use various tests depending on needs to evaluate and correct near vision. 	
Code	Subject title	Volume
4NUK20/LN2	Examination of Near Vision II	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire detailed knowledge about near vision correction techniques. 2. To acquire detailed knowledge about special cases regarding near vision and their possible solutions. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows various ways to determine ADD and knows if they are reasonably practicable. 2. Knows the influence of lighting and age on near vision. 	

	3. Analyses special cases regarding near vision and visual acuity to find best possible vision solutions.	
Code	Subject title	Volume
4NUK17/NT	Visual Perception	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire detailed knowledge about the physiological process of vision. 2. To develop an understanding about the essence of binocular vision and the peculiarities of visual field. 3. To acquire basic knowledge about the disorders related with visual perception and their possible causes. 4. To acquire knowledge about what is happening in visual cortex of the brain, and to understand the importance of visual perception from the point of view of stereopsis. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows and understands the advancing of visual signal in vision pathway and the electro-chemical processes connected with it. 2. With the help of different models - can visualize the advancing of signals on the different levels of visual cortex of the brain. 3. Understands the specifics of stereopsis and their connection with stereoscopic vision. 4. Is capable of solving different tasks related with the modulation of visual perception. 	
Code	Subject title	Volume
4NUK17/NB	Development of Vision and Binocular Vision	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire knowledge about the structure, physiology and functions of binocular vision. 2. To get an overview about the development of human vision. 3. To be able to explain the sensory and motoric aspects of the development of normal monocular and binocular vision and abnormal vision. 4. To understand and analyse the essence of stereoscopic vision. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Understands the development of normal monocular and binocular vision. 2. Can explain the evolving of anomalous vision. 3. Can evaluate the existence of monocular, binocular and stereoscopic vision. 	
Code	Subject title	Volume
4NUK17/BNH	Binocular Vision Disorders	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire knowledge about different binocular vision disorders on sensory as well as motoric levels. 2. To get a detailed overview about the different research methods aimed to find binocular vision disorders. 3. To understand and recommend different possibilities for curing binocular vision. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the formation mechanisms of binocular vision disorders. 2. Is able to use the different research methods of vision examination for recognizing disorders in eye cooperation and the causes of asthenoptical complaints. 3. Is able to orientate in specific aspects of binocular vision. 	

Code	Subject title	Volume
4NUK17/BU	Research of Binocular Vision Disorders	4 ECTS
Aim	To acquire detailed knowledge and skills for identifying binocular vision disorders and for their correction.	
Learning outcomes	<ol style="list-style-type: none"> 1. Is able to identify possible anomalies of binocular vision and is able to measure/evaluate them. 2. Is able to correct binocular vision disorders on their own, and/or recommend suitable eye exercises to the client for improving their situation. 	
Code	Subject title	Volume
4NUK17/TN	Occupational Vision	3 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire knowledge about the visual needs related with the performance of different work-related duties. 2. To acquire detailed knowledge about the specifics and characteristics of ophthalmic lenses designed for middle- and close distances. 3. To prepare the student for understanding about the possible vision related problems that arise during the performance of different work-related duties. 	
Learning outcomes	<ol style="list-style-type: none"> 1. By proceeding from wishes of client in need of vision correction, is able to analyse the possibilities for performing different work-related duties with the help of optical correction. 2. Knows the features of different ophthalmic lenses meant for middle and close distances. 3. Is able to create a visual and comprehensive picture about client's needs and about real situations at different workplaces. 	
Code	Subject title	Volume
4NUK17/GO	Geriatric Optometry	3 ECTS
Aim	To acquire a full picture about connections between correcting visual acuity of the elderly and geriatric chronic diseases, and be able to find solutions to these complex problems within their competences.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the influence of different diseases on visual health. 2. Has an idea about the influence of geriatric medicines on vision. 3. Is able to offer best options to the elderly clients on correcting their visual acuity. 	
Code	Subject title	Volume
4NUK20/PrNU1	Practical Training – Eye Examination I	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire practical experience for working in the room of eye examination in the traineeship institution. 2. To practise performance methods of objective vision acquired in lectures and practical courses. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Uses objective eye examination equipment skillfully. 2. Practises all the methods of objective vision examination. 3. Draws adequate conclusions based on measurement results. 4. Performs skilfully pre-vision examination duties before objective eye examination. 	

Code	Subject title	Volume
4NUK20/PrNU2	Practical Training – Eye Examination II	6 ECTS
Aims	<ol style="list-style-type: none"> 1. To practise methods of subjective monocular eye examination acquired in lectures and practical courses. 2. To gain practical experience on carrying out eye examination on clients by using various objective and subjective methods. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Carries skilfully out subjective monocular eye examination both with a test frame and a phoropter. 2. Practises various ametropia correction methods. 3. Chooses suitable methods depending on individual needs. 4. Draws adequate conclusions based on objective and subjective results. 	
Code	Subject title	Volume
4NUK20/PrNU3	Practical Training – Eye Examination III	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To practise subjective monocular and binocular eye exam methods acquired in lectures and practical courses. 2. To acquire practical experience in carrying out an eye exam on clients by using various objective and subjective methods and ways for binocular balancing. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Performs skilfully both subjective monocular and binocular eye exam with a test frame and a phoropter. 2. Practises various binocular balancing methods for vision. 3. Chooses appropriate methods depending on individual needs. 4. Draws adequate conclusions based on objective and subjective results. 	
Code	Subject title	Volume
4NUK20/PrNU4	Practical Training – Eye Examination IV	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To practise binocular eye exam and near vision methods acquired in lectures and practical courses. 2. To acquire practical experience in carrying out an eye exam on clients by using various objective and subjective methods, binocular balancing and near vision examination methods. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Performs skilfully binocular and near vision examinations both with a test frame and a phoropter. 2. Practises various binocular balancing and near vision examination methods. 3. Chooses appropriate methods depending on individual needs. 4. Draws adequate conclusions when prescribing spectacles based on individual specific needs and analysing the tests results. 	
Code	Subject title	Volume
4NUK20/PrNU5	Practical Training – Eye Examination V	6 ECTS
Aims	<ol style="list-style-type: none"> 1. To practise near vision examination methods and ways to measure accommodation amplitude acquired in lectures and practical courses. 2. To acquire practical experience in carrying out an eye examination on clients by using methods of binocular balancing and near vision examination. 	

Learning outcomes	<ol style="list-style-type: none">1. Performs skilfully both distance and near vision examinations both with a test frame and a phoropter.2. Practises various binocular balancing and near vision examination methods.3. Knows and understands the influence of accommodation disorders on near vision.4. Draws adequate conclusions when prescribing spectacles based on individual specific needs and analysing the tests results and suggests appropriate vision solutions.
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Module title: Ophthalmology and Contact Lenses		Volume: 35 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire solid knowledge about human eye anatomy and its connections with central nervous system. 2. To acquire basic knowledge about eye diseases, their etiology and severity. 3. To get an overview about the ophthalmic research methods and ophthalmic appliances, and how to handle them. 4. To get a detailed overview about contact lenses, about fitting contact lenses and about the risks of wearing them. 5. To get an overview about visual aid for persons with low vision, and about handling and fitting these instruments. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the structure and functioning of human eye, has up-to-date knowledge about the motor pathway of vision and about their possible anomalies. 2. Distinguishes the healthy eye from pathologic, identifies different details and possible special cases, and is competent to refer the client to the ophthalmologist's. 3. Evaluates the condition of human eye for prescribing and fitting contact lenses, and is competent for instructing the client. 4. Is able to foresee and solve the complications related to wearing contact lenses, and also the possible harm for client's health. 5. Is able to determine the level of client's deteriorated vision and taking it into account to fit visual aid instruments or to consult the client on how to cope with daily activities. 6. Is able to perform complex evaluation of the problems of clients with special needs, and offers professional solutions. 	
Evaluation of module: subject-based method		
Subjects		
Code	Subject title	Volume
4OFK17/SA	Anatomy of the Eye	3 ECTS
Aim	To acquire a detailed overview about the eye's anatomic structure and physiology.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the anatomy of the eye and the structure of its different parts. 2. Knows the functioning and purpose of different eye parts. 	
Code	Subject title	Volume
4OFK20/SH1	Eye Diseases I	4 ECTS
Aims	<ol style="list-style-type: none"> 1. To provide knowledge about the most important eye diseases of anterior parts of the eye, their symptoms, threats and treatment possibilities. 2. To acquire knowledge about the influence of eye diseases of anterior parts of the eye on one's visual acuity and visual perception. 3. To acquire skills for handling different instruments and appliances for ophthalmic examination for common eye diseases of anterior parts of the eyes. 	

	4. To acquire knowledge about external symptoms and clinical pictures of common eye diseases of anterior parts of the eye.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows common eye diseases of anterior parts of the eye, their etiology and symptoms. 2. Has up-to-date knowledge about different treatment methods of eye diseases of anterior parts of the eye and can critically evaluate the need for referring the patient to the ophthalmologist's. 3. Can handle appliances and instruments for ophthalmic examination for anterior parts of the eye. 4. Knows and can identify most common eye diseases of the anterior part of the eye. 5. Analyses the collected data critically. 	
Code	Subject title	Volume
4OFK20/SH2	Eye Diseases II	6 ECTS
Aims	<ol style="list-style-type: none"> 1. To provide knowledge about the most important eye diseases of posterior parts of the eye, their symptoms, threats and treatment possibilities. 2. To acquire knowledge about the influence of eye diseases of posterior parts of the eye on one's visual acuity and visual perception. 3. To acquire skills for handling different instruments and appliances for ophthalmic examination of posterior parts of the eye. 4. To acquire knowledge about external symptoms and clinical pictures of common eye diseases of posterior parts of the eye. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows various eye diseases of posterior parts of the eye, their etiology and symptoms. 2. Has up-to-date knowledge about different treatment methods of eye diseases of posterior parts of the eye and can critically evaluate the need for referring the patient to the ophthalmologist's. 3. Can handle appliances and instruments for ophthalmic examination for posterior parts of the eye. 4. Knows and can identify most common eye diseases of posterior parts of the eye. 5. Analyses the collected data critically. 	
Code	Subject title	Volume
4OFK20/KL	Contact Lenses	5 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire detailed knowledge about the materials, structure and specificities of the use of contact lenses. 2. To acquire detailed knowledge about threats and different aspects related to wearing contact lenses and taking care of contact lenses. 3. To acquire solid knowledge about fitting and post-observation of contact lenses. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows different materials and types of contact lenses according to their purpose. 2. Performs curvature and power calculations of contact lenses. 3. Evaluates independently the problems arising from wearing contact lenses and make adequate decisions. 	

Code	Subject title	Volume
4OFK20/KS	Contact Lens Fitting	5 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire main principles about fitting contact lenses and about their maintenance. 2. To acquire knowledge about the use of different instruments for fitting and checking the fitting of contact lenses. 3. To acquire skills for teaching the handling of contact lenses and their maintenance. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows different types of contact lenses, and fits and recommends them according to needs. 2. Explains and teaches the maintenance and handling of contact lenses to the user. 3. Evaluates and analyses independently the problems arising from wearing contact lenses. 	
Code	Subject title	Volume
4OFK20/NR	Visual Rehabilitation	3 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire understanding about low vision and the possibilities for correcting low vision. 2. To acquire knowledge about the different optical and non-optical instruments meant for people with low vision. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Evaluates the level of low vision. 2. Fits and recommends the optical and non-optical instruments for low vision. 3. Evaluates the work and environmental conditions related with low vision and gives recommendations for improving the situation. 	
Code	Subject title	Volume
4OFK17/PrSH	Practical Training – Eye Diseases	6 ECTS
Aims	<ol style="list-style-type: none"> 1. To fix everything that has been taught during theory and practical training. 2. To develop the skills of handling apparatuses. 3. To recognize the clinical pictures of different eye diseases. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Acquires reasonable skill in handling optical apparatuses. 2. Recognizes most widespread eye diseases. 3. Is able to analyse independently the received data and make decisions about next steps. 	
Code	Subject title	Volume
4OFK20/SF	Ocular Pharmacology	3 ECTS
Aim	To acquire knowledge about the active pharmaceutical ingredients of drugs on human body.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the use, the effect of substances of various ocular drugs and their side effects. 	

	2. Has up-to-date knowledge about the specific characteristics of over-the-counter ocular drugs sold in Estonian pharmacies and can recommend them to the clients adequately.
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Module title: Human Studies		Volume: 18 ECTS
Aims	<ol style="list-style-type: none"> 1. The student will be prepared to understand the development of human body, its structure, function and the mechanisms regulating the functions of bodily systems, based on the physical processes in it. In parts of human anatomy, Physiology and Pathology follow the principles of health policy, general pathoanatomical and pathophysiological changes in the body, take into account most common internal and neurological diseases, discussing the diseases causing eye pathology. 2. Most used treatment groups, paying main attention to the medicines used most commonly in eye disease diagnostics and their treatment. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Has knowledge about theoretical principles of health and health promotion. 2. Has knowledge about the health status among population in Estonia. 3. Knows the nature of pathology and is able to use general terms in pathology. 4. Has prior knowledge about the etiopathogenesis of most common diseases (atherosclerosis, ischemic heart disease, allergic diseases). 5. Knows the most common internal and neurological diseases causing eye damage together with their clinical picture, causes, their diagnosing possibilities, and principles of treatment and prevention. 6. Has knowledge about the effect of medication on organism and the factors influencing this effect. 7. Has knowledge about the medicines used most commonly in eye disease diagnostics and in their treatment process. 8. Can associate the acquired knowledge with their future profession. 9. Has general knowledge about the possibilities of pre-medical aid. 10. Is able to give first aid. 	
Evaluation of module: subject-based method		
Subjects		
Code	Subject title	Volume
AnF17	Anatomy and Physiology	6 ECTS
Aim	To acquire basic knowledge in anatomy and physiology.	
Learning outcomes	<ol style="list-style-type: none"> 1. Uses appropriate anatomy and physiology related terminology. 2. Knows and is able to explain the structure of the human body and the mechanisms regulating its functioning and development. 3. Knows the shape, structure and location of organs in human body by body systems. 	
Code	Subject title	Volume
HaOp17	Pathology	5 ECTS
Aim	To acquire foundation knowledge about causes and onset of diseases, signs and disease-related changes in the human body.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows fundamental processes and concepts of general pathology. 2. Knows etiopathogenesis and pathogenesis of most prevalent diseases, and ways to prevent the diseases treating each organ system separately. 3. Has basic knowledge about microbiology and function of the immune 	

	<p>system, most common micro-organisms and diseases caused by them affecting human functioning.</p> <p>4. Knows genetic bases and understands the nature of heredity and mutability, has foundation knowledge about more common chromosomal and genetic diseases, and possibilities to apply genetics in medicine.</p>	
Code	Subject title	Volume
4IÕ17/SN	Internal and Neurological Diseases	3 ECTS
Aims	<ol style="list-style-type: none"> 1. To get an overview of the most common internal and neurological diseases (with geriatrics), their causes and spreading, clinical picture, methods of diagnosing and the principles of treatment and prevention. 2. To understand the internal and neurological diseases causing eye pathology. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Has an overview about the main examination methods of the patient. 2. Knows the most common internal and neurological diseases together with their clinical picture, causes, their diagnosing possibilities, and principles of treatment and prevention. 3. Can associate the acquired knowledge with their future profession. 	
Code	Subject title	Volume
UF17	General Pharmacology	2 ECTS
Aim	To acquire knowledge about concepts of general pharmacology, groups and different forms of medications, and routes of administration.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows concepts of general pharmacology and can use them. 2. Describes effects of the medication groups on a human body and factors influencing them. 3. Names different forms and routes of administration of medications, and dependence of a form or route of administration on the effect of medication. 	
Code	Subject title	Volume
RaTer17	Public Health	2 ECTS
Aim	To form knowledge about theoretical foundations and functions of public health, public health policy principles, and give an overview of the situation and organizational arrangement of public health in Estonia.	
Learning outcomes	<ol style="list-style-type: none"> 1. Understands the nature of public health field, tasks, public health policy principles, and is able to interact health factors having effect on an individual and the community. 2. Knows most common health problems of population in Estonia and activities within the frames of the National Health Development Plan to prevent diseases and promote health. 3. Has an overview of the organizational arrangement of public health in Estonia and creates connections between activities of different institutional sectors and levels. 	

Module title: Professional Development		Volume: 33 ECTS
Aims	<ol style="list-style-type: none"> 1. The college's system of studies, curriculum, and about the rights and obligations of the student. 2. Communication disciplines and the importance of ethics in future work. 3. The main groundwork of entrepreneurship and management. 4. The importance of personal professional development in future work. 5. The essence and position of the profession. 6. The importance of lifelong learning and self-improvement. 	
Learning outcomes	<ol style="list-style-type: none"> 1. Has an overview about the contents of the curriculum and about syllabus, study regulation rules and knows how to use the study information system. 2. Knows, recognizes and applies different learning styles and teaching methods used at college. 3. Is capable of planning and managing independent work and career, and to develop one's learning skills. 4. Is able to systematize and generalize what has been studied from curriculum subjects, and to apply theoretical knowledge in practical training. 5. Is able to critically analyse, discuss and argue one's positions. 6. Knows, applies and develops different communication techniques, one's personal study resources and skills, and understands the need of personal motivation in adopting the profession and planning one's career. 7. Adopts the knowledge and experiences for instructing other students. 8. Values and is able to use teamwork principles. 	
Evaluation of module: subject-based method		
Subjects		
Code	Subject title	Volume
SO17	Introduction to Learning	2 ECTS
Aim	To create possibilities for managing successfully in study process in Tallinn Health Care College.	
Learning outcomes	<ol style="list-style-type: none"> 1. Has an overview of Estonian higher education system and possibilities for international cooperation. 2. Knows organization of studies and practical training, and study counselling system in Tallinn Health Care College. 3. Is able to compose and execute letters and study documents. 4. Knows foundations of studies, teamwork, stress and time management, and career planning. 	
Code	Subject title	Volume
KL17	Client Service	3 ECTS
Aim	To acquire knowledge about client service foundations and provide readiness for understanding and fulfilling clients` needs in service process.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows foundations and ethical aspects of client service. 2. Knows the nature of service process and can participate properly in this. 3. Knows types of products/service and is able to plan and carry out (sales) conversation. 	

	4. Uses appropriate communication techniques in client service.	
Code	Subject title	Volume
4PA20/PrSOE	Introduction to Practical Training (Optical Company)	4 ECTS
Aim	To get acquainted with the organization of work in optical companies and with the duties of the staff.	
Learning outcomes	<ol style="list-style-type: none"> 1. Understands the everyday life in optics store. 2. Has an idea about the application possibilities of the profession. 3. Understands teamwork importance and its principles. 	
Code	Subject title	Volume
JuEt17	Management and Entrepreneurship	4 ECTS
Aim	To create possibilities for developing basic skills related to organization management and starting enterprise.	
Learning outcomes	<ol style="list-style-type: none"> 1. Can describe an organization and its management process, including personnel management, and associate them with his/her speciality. 2. Knows different forms of enterprise and principles for choosing them. 3. Chooses and analyses a business idea, can develop a business plan, and plan and carry out projects. 4. Has elementary knowledge about foundations of tax system and accountancy, and can apply to financial institutions or funds for getting financing. 5. Knows principles of product and service development, and marketing. 	
Code	Subject title	Volume
TO17	Occupational Safety	3 ECTS
Aim	To acquire first aid skills, ability to act safely in the work environment and in case of fire hazard.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows the principles of quality and risk management in health care organization. 2. Is able to assess risk factors in the work environment and develop a risk analysis. 3. Knows, how to use ergonomic job methods and promote health at workplace. 4. Is able to give first aid without any medical devices. 5. Is able to act in case of fire hazard. 	
Code	Subject title	Volume
4PA17/NE	Vision Ergonomics	2 ECTS
Aims	<ol style="list-style-type: none"> 1. To acquire basic knowledge about the ergonomics of occupational health care, work safety and vision ergonomics and evaluation and controlling health risks in work environment. 2. To gain readiness for cooperation with designers of work areas and lighting specialists, representatives of companies measuring work environment, and with employers. 3. To acquire knowledge about counselling clients with vision problems at various workplaces. 	

Learning outcomes	<ol style="list-style-type: none"> 1. Is able to map hazards in work environment, potential causes of accidents, evaluate the level of health risk and create a risk management plan. 2. Knows the reasons and prevention of mental and physical overload. 3. Is able to evaluate and value the need for evaluating, developing and restoring the ability of coping and work. 4. Is able to design work areas/working areas for optometry specialists. 5. Is able to use physics knowledge in guaranteeing work safety and vision conditions. 6. Is able to evaluate the lighting conditions of work areas, to offer recommendations for selecting lighting instruments. 7. Is able to counsel clients in the selection of instruments for vision correction that would conform with the possibilities at work place and also with the nature of work tasks. 	
Code	Subject title	Volume
PSU17	Psychology	3 ECTS
Aim	To acquire knowledge of psychology and provide readiness for understanding the needs of a patient/client.	
Learning outcomes	<ol style="list-style-type: none"> 1. Has knowledge about concepts of psychology (including developmental, personality and social psychology) and main approaches. 2. Understands the nature and causes of an individual's development and social behaviour. 3. Is able to apply different communication techniques and knows teamwork principles. 	
Code	Subject title	Volume
TTE20	Health Care Technology and e-Health	2 ECTS
Aim	To develop knowledge about electronic health information systems and the principles of technologies used in healthcare.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows and uses health care technology terminology and the developed e-solutions, understands the importance of data transfer. 2. Has an overview of health telematics implication possibilities. 3. Understands data protection requirements and the importance of cyber security requirements. 	
Code	Subject title	Volume
4PA20/PrDE	Pre-Diploma Practical Training	10 ECTS
Aim	To acquire an experience of independent work that includes all that is related with the optometrist's profession: customer service, assembling and fitting spectacles, vision examination, the skills to evaluate special cases and to behave accordingly.	
Learning outcomes	<ol style="list-style-type: none"> 1. Knows and recognizes different methods of checking and correcting visual acuity, and proceeds in one's recommendations and selections from client's needs and possibilities. 2. Interprets independently the collected information critically and creatively, shows up initiative and responsibility in developmental and teamwork. 3. Analyses in written report as well as in seminar the work process and to assess it. 	

	4. Connects and values the theory and practical skills acquired in studies so far with the profession and with all other subjects in the curriculum.
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Module title: Research Methodology		Volume: 20 ECTS
Aim	To create possibilities and support for conducting research and developing academic writing skills.	
Learning outcomes	<ol style="list-style-type: none"> 1. Can find and use reliable evidence-based scientific sources for the professional research. 2. Can analyse and report information found from different sources. 3. Knows foundations of statistics, can methodically collect data and analyse them properly. 4. Knows ethics in research and can follow this. 5. Can set professional problems, and based on the research, give recommendations for solving them. 	
Evaluation of module: subject-based method		
Subjects		
Code	Subject title	Volume
UTM1-17	Foundations of Research I	5 ECTS
Aim	To create readiness for collecting and analysing evidence-based information.	
Learning outcomes	<ol style="list-style-type: none"> 1. Can apply principles of systematic literature search and record search results. 2. Can independently use scientific data bases and analyse relevant evidence-based materials. 3. Can report professional scientific literature in English and Estonian. 4. Knows foundations of statistics and is able to find and interpret statistics. 5. Can compose and form independent works, and uses scientific language. 	
Code	Subject title	Volume
UTM2-17	Foundations of Research II	5 ECTS
Aim	To create skills for conducting research.	
Learning outcomes	<ol style="list-style-type: none"> 1. Understands concepts and principles of scientific research and differences between types of research. 2. Knows different research methods, and planning the research, can choose the most suitable method for collecting and analysing data. 3. Can collect or find statistical data and relevant evidence-based sources, analyse, report and refer properly them in his/her paper. 4. Understands principles of ethics in science and medicine, is able to pay attention to ethical aspects, when composing his/her research. 	
Code	Subject title	Volume
LP1-17	Graduation Thesis I	5 ECTS
Aim	To acquire skills for using his/her professional knowledge to search independently and analyse critically a particular problem or situation in practice.	

Learning outcomes	<ol style="list-style-type: none"> 1. Is able to independently plan and carry out a research, and present properly its results. 2. Can pay attention to professional problems and research focuses. 3. Is able to give research-based recommendations for solving professional problems. 	
Code	Subject title	Volume
LP2-17	Graduation Thesis II	5 ECTS
Aim	To show a student`s ability to apply his/her knowledge and practical skills, developed across the curriculum, to carry out a research, using different research methods.	
Learning outcomes	<ol style="list-style-type: none"> 1. Understands research ethics and principles of reliability, and considers them when carrying out the research. 2. Is able to go through and analyse scientific literature associated with a research problem. 3. Knows the way of data collection and method of analysis used in the research. 4. Can explain research results and importance of them in specialty. 5. Is able to analyse critically and defend his/her viewpoints presented in the research, and discuss the searched topic. 	
Code	Subject title	Volume
LE17	Final Examination	5 ECTS
Aim	To show a student`s ability to integrate his/her professional knowledge and skills, and readiness for starting professional field job.	
Learning outcomes	<ol style="list-style-type: none"> 1. Has a systematic overview of the profession and its competencies. 2. Has knowledge, skills and readiness for starting professional field job. 3. Can connect professional theory with practice and use the knowledge without causing harm to a patient/client interests. 	

Module title: Elective Subjects		Volume: 5 ECTS
Evaluation of module: subject-based method		
Code	Subject title	Volume
VAVKOP11	Russian for Optometrists	2 ECTS
VASTH12	Eye Health Care	2 ECTS
VAEHC12	<i>Eye Health Care</i>	2 ECTS