

**Vocational School of Health Services / Opticianry**

**2023 - 2024 Academic Year**

**USE of OPTICAL INSTRUMENTS**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
USE of OPTICAL INSTRUMENTS	OPT1265400	Spring Semester	2+0	2	2
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	Short Cycle (Associate's Degree)				
<b>Course Type</b>	Elective				
<b>Course Coordinator</b>	Lect. Hüseyin DEMİR				
<b>Name of Lecturer(s)</b>	Lect. Hüseyin DEMİR				
<b>Assistant(s)</b>					
<b>Aim</b>	To provide the optical structure and use of all optical instruments related to the opticianry profession.				
<b>Course Content</b>	This course contains; Mirrors and their use in optical instruments,Lenses and the use of lenses in optical instruments,Prisms and their use in optical instruments,Determination of diopter forces of lenses,Basic characteristics of optical instruments,Telescopes and Photo Machines,Low vision (low vision) optical instruments, Binoculars, Camera (camera), Microscope,Routine eye examination and Using of Optical device with Helpful Tools and Methods in Optometry,Pupillameter, Ophthalmic optical instruments,Fundus photography and retinoscope,Refractometers and Tonometers,Varieties of Surgical microscope and slit lamps,Fokometers (lensometers), Photo darkeners.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
2.1.explains the microscope's optical aberrations.			9	A	
2.2.explains the types of private Microscope and where they are used.			16, 9	A	
4.Recognize the technical structure of the pupillameter.			16, 9	A	
1. recognize low vision tools and the structure of the telescope.			9	A	
1.1. recognizes the structure of the magnifiers and magnifying glasses.			9	A	
1.2. recognizes telescopic glasses.			16, 9	A	
2. Recognize the structure of the microscope.			16, 9	A	
3. recognize the optical structure of the camera and it's working principle.			9	A	
<b>Teaching Methods</b>	16: Question - Answer Technique, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam				
<b>Lecture Schedule</b>					
<b>Sequenc e</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Mirrors and their use in optical instruments	Mebis Notes			
2	Lenses and the use of lenses in optical instruments	Mebis Notes			
3	Prisms and their use in optical instruments	Mebis Notes			
4	Determination of diopter forces of lenses	Mebis Notes			
5	Basic characteristics of optical instruments	Mebis Notes			
6	Telescopes and Photo Machines	Mebis Notes			
7	Low vision (low vision) optical instruments	Mebis Notes			
8	Binoculars, Camera (camera), Microscope	Mebis Notes			
9	Routine eye examination and Using of Optical device with Helpful Tools and Methods in Optometry	Mebis Notes			
10	Pupillameter, Ophthalmic optical instruments	Mebis Notes			
11	Fundus photography and retinoscope	Mebis Notes			
12	Refractometers and Tonometers	Mebis Notes			
13	Varieties of Surgical microscope and slit lamps	Mebis Notes			
14	Fokometers (lensometers), Photo darkeners	Mebis Notes			
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		40			
General Exam		60			

<b>Resources</b>
Authors of the book Optical Instruments: Prof. Assoc. Dr. Naci EKEM Assoc. Dr. Gökhan SAVAROĞLU Lecturer's lecture notes