

COURSE INFORMATION					
Course Title	Code	Semester	COURSE INFORMATION Lecture+Practice+Labrotory Hour	Credits	ECTS
OPHTHALMOLOGY (Clinical Clerkship)	MED 502	Phase 5/9-10	28+52	5	5*

* ECTS credits are the university credits of the courses in Yeditepe University, Faculty of Medicine, Undergraduate Medical Education Program

Prerequisites	The student that joins this course, should completed Phase 1, 2, 3 and 4 courses of medical faculty.
Language of Instruction	English
Course Level	Second Cycle including First Cycle Degree (One Tier Programme)
Course Type	Compulsory
Course Coordinator	Sinan Tatlıpınar, MD Prof.
Instructors	Sinan Tatlıpınar, MD Prof. Raciha Beril Küçümen, MD Prof. İlke Bahçeci Şimşek, MD Assoc. Prof. Özge Yabaş Kızıloğlu MD Assoc. Prof. Vildan Öztürk, MD Assist. Prof. Alp Kayıran, MD Assist. Prof.
Assistants	
Goals	To convey necessary knowledge on pathology, symptomatology, clinics and pharmacology of eye diseases, to equip with skills and attitudes required for an appropriate approach to management of eye patients
Content	

Learning Outcomes	Programme Learning Outcomes	Teaching Methods	Assessment Methods
At the end of this clerkship, the student should be able to:			
1. Describe anatomy of eye and appendaxes and orbit,	1,1,3	1,2,3	A, C
2. Classify refractive errors and different methods of treatment	1,1,3	1,2,3	A, C
3. Describe physiologies and pathologies of the cornea, conjunctiva, lacrimal system, eyelids and the orbit, explain mechanisms of occurrence, signs and symptoms, methods of examination and ancillary tests, and treatment options of these pathologies.	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3,12	A, C
4. State signs and symptoms of different lenticular diseases including cataracts, indications and methods of surgical treatments.	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3	A, C

5. Explain pathophysiology, diagnostic and treatment methods and pharmacology of various glaucoma types	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3,12	A, C
6. Classify uveitic syndromes with respect to affected anatomical sites, signs and symptoms and describe different treatment options	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3,12	A, C
7. Describe mechanisms of occurrence, signs and symptoms, methods of examination and ancillary tests, and treatment options of vascular and age related diseases of retina,	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3	A, C
8. Explain pathophysiology, risk factors, signs and symptoms, preventive measures and different treatment methods of retinal detachment,	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3	A, C
9. Describe signs, symptoms and examination methods of neuroophthalmological diseases, interpret relationship with neurological diseases and anatomical locations of lesions.	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3	A, C
10. Explain signs, symptoms and examination methods of pediatric ophthalmological diseases and strabismus types and classify the treatment options.	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12	1,2,3	A, C
11. Describe signs, symptoms, examination methods recognize differential diagnosis and classify the treatment options of red eye diseases.	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,7 - 1,1,8 - 1,1,9 - 1, 1,10 - 1,1,12	1,2,3,12	A, C
12. Describe signs, symptoms, examination methods of eye trauma and emergency, recognize differential diagnosis and classify treatment options depending on the urgency.	1,1,1 - 1,1,2 - 1,1,3 - 1,1,4 - 1,1,6 - 1,1,12 - 2,5,1 - 2,5,4	1,2,3,12	A, C
13. Interpret ocular manifestations of systemic diseases.	1,1,1 - 1,1,3 - 1,4,1	1,2,3	A, C
14. Outlines methods of examination in ophthalmology.	1,1,7 - 1,1,8	1,2,3	A, C

Teaching Methods:	1: Lecture, 2: Question-Answer, 3: Discussion, 9: Simulation, 12: Case Study
Assessment Methods:	A: Testing B: Presentation C: Homework

COURSE CONTENT		
WEEK	SUBJECT	Study Materials
1		
1	Introductory Session	Materials for the course provided by instructor

1	Lecture Anatomy	Materials for the course provided by instructor
1	Lecture Refractive Errors	Materials for the course provided by instructor
1	Lecture Methods of Examination	Materials for the course provided by instructor
1	Lecture Conjunctiva	Materials for the course provided by instructor
1	Lecture Cornea	Materials for the course provided by instructor
1	Lecture Tear Film and Lacrimal Apparatus	Materials for the course provided by instructor
WEEK 2	SUBJECT	
1	Lecture Glaucoma	Materials for the course provided by instructor
1	Lecture Lids and Orbit	Materials for the course provided by instructor
1	Lecture Retinal Detachment and Intraocular Tumours	Materials for the course provided by instructor
1	Lecture Retinal Vascular Diseases	Materials for the course provided by instructor
1	Lecture CBL Red Eye	Materials for the course provided by instructor
1	Lecture CBL Trauma and Emergency in Ophthalmology	Materials for the course provided by instructor
1	Lecture Contact Lens and Refractive Surgery	Materials for the course provided by instructor
1	Lecture Diseases of the lens	Materials for the course provided by instructor
1	Lecture Ocular Manifestations of Systemic Diseases	Materials for the course provided by instructor
1	Lecture Uveal Tract	Materials for the course provided by instructor
WEEK 3	SUBJECT	
1	Lecture Macular Degeneration and Hereditary Retinal Dystrophies	Materials for the course provided by instructor
1	Lecture Strabismus	Materials for the course provided by instructor
1	Lecture Neuro – Ophthalmology	Materials for the course provided by instructor
1	Lecture Pediatric ophthalmology	Materials for the course provided by instructor

3 Assessment Session	Materials for the course provided by the instructor
3 Program Evaluation Session Review of the Exam Questions, Evaluation of the Program	Materials for the course provided by the instructor

NCC 2014 - Essential Medical Procedures (National Core Curriculum)	Performance Level
Eye, fundus examination	3

RECOMMENDED SOURCES	
Textbook	<ul style="list-style-type: none"> • Ophthalmology: A Short Textbook by J. Amann, Gerhard K. • Wills Eye Manual The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease, by Nika Bagheri MD, Brynn Wajda MD, Charles Calvo MD, Alia Durrani MD • MEEI Manual of Ophthalmology by Peter K. Kaiser MD, Neil J. Friedman MD, Roberta Pineda MD • Basic Ophthalmology: Essentials for Medical Students, 10th ed. • Lang, Atlas Ophthalmology PDF
Additional Resources	<ul style="list-style-type: none"> • http://www.icoph.org/dynamic/attachments/resources/icoemergencyhandbook2010_1.pdf • https://timroot.com/ophthobook/ • https://www.atlasophthalmology.net/ • https://eyewiki.org/Main_Page • https://www.columbiaeye.org/eye-library • http://webeye.ophth.uiowa.edu/eyeforum/ • https://eyeguru.org/ • http://www.meduniwien.ac.at/augen/englisch/steps.htm# • www.retinapodcast.com • www.eyes4ears.com • Lecture notes

ASSESSMENT	
Questions Types (Pencil-PaperTests)	Proportion <i>(in Pencil-Paper Tests)</i>
Multiple Choice Questions	80%
Extended Matching Questions	10%
Key Feature Questions	10%
Total	100 %
Other Assessment Methods and Tools	Proportion <i>(in Pass/Fail Decision)</i>

Structured Oral Exam (SOE)	35%
Objective Structured Clinical Exam (OSCE)	10%
Case Based Learning (CBL quiz)	5%
Total	50 %
Pass/Fail Decision	Proportion (in Pass/Fail Decision)
Pencil-Paper Tests	50%
Other Assessments Methods and Tools	50%

MATERIAL SHARING	
Documents	Via google classroom
Assignments	Student ppt presentations
Exams	Not shared

COURSE CATEGORY	Expertise/Field Courses
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COURSE'S CONTRIBUTION TO PROGRAM						
	PODG.1. Basic Professional Competencies	Contribution				
	POD.1.1. Clinical Competencies	1	2	3	4	5
PO.1.1.1.	values preventive health services, offers primary prevention (i.e. prevention of diseases for the protection of health), secondary prevention (i.e. early diagnosis and treatment) tertiary prevention (i.e. rehabilitation) and quaternary prevention (i.e. prevention of excessive and unnecessary diagnosis and treatment) services, provides consultancy on these issues.					X
PO.1.1.2.	employs a patient-centered approach in patient management.					X
PO.1.1.3.	recognizes most frequently occurring or significant clinical complaints, symptoms, signs, findings and their emergence mechanisms in clinical conditions.					X
PO.1.1.4.	takes medical history from the applicant himself/herself or from the individual's companions.					X
PO.1.1.5.	does general and focused physical and mental examination.					X
PO.1.1.6.	interprets findings in medical history, physical and mental examination.					X
PO.1.1.7.	employs diagnostic procedures that are used frequently at the primary health care level.					X

PO.1.1.8.	selects tests that have evidence-based high efficacy at the primary health care level and interprets results.					X
PO.1.1.9.	makes clinical decisions using evidence-based systematic data in health care service.					X
PO.1.1.10.	performs medical interventional procedures that are used frequently at the primary health care level.					X
PO.1.1.11.	manages healthy individuals and patients in the context of health care services.					X
PO.1.1.12.	keeps medical records in health care provision and uses information systems to that aim.					X
	POD.1.2. Competencies related to Communication					
PO.1.2.1.	throughout his/her career, communicates effectively with health care beneficiaries, co-workers, accompanying persons, visitors, patient's relatives, care givers, colleagues, other individuals, organizations and institutions.					X
PO.1.2.2.	collaborates as a team member with related organizations and institutions, with other professionals and health care workers, on issues related to health.					X
PO.1.2.3.	recognizes the protection and privacy policy for health care beneficiaries, co-workers, accompanying persons and visitors.					X
PO.1.2.4.	communicates with all stakeholders taking into consideration the socio-cultural diversity.					X
	POD.1.3. Competencies Related to Leadership and Management					
PO.1.3.1.	manages and leads within the health care team in primary health care organization.				X	
PO.1.3.2.	recognizes the principles of health management and health sector economy, models of organization and financing of health care services.				X	
PO.1.3.3.	recognizes the resources in the health care service, the principles for cost-effective use.				X	
	POD.1.4. Competencies related to Health Advocacy					
PO.1.4.1.	recognizes the health status of the individual and the community and the factors affecting the health, implements the necessary measures to prevent effects of these factors on the health.					X
PO.1.4.2.	recognizes and manages the health determinants including conditions that prevent access to health care.					X
	POD.1.5. Competencies related to Research					
PO.1.5.1.	develops, prepares and presents research projects				X	
	POD.1.6. Competencies related to Health Education and Counseling					
PO.1.6.1.	provides consultancy services and organizes health education for the community to sustain and promote the health of individual and community.					X
	POD.G.2. Professional Values and Perspectives					
	POD.2.1. Competencies related to Law and Legal Regulations					
PO.2.1.1.	performs medical practices in accordance with the legal framework which regulates the primary health care service.				X	
	POD.2.2. Competencies Related to Ethical Aspects of Medicine					
PO.2.2.1.	recognizes basic ethical principles completely, and distinguishes ethical and legal problems.					X

PO.2.2.2.	pays importance to the rights of patient, patient's relatives and physicians, and provides services in this context.						X
POD.2.3. Competencies Related to Social and Behavioral Sciences							
PO.2.3.1.	relates historical, anthropological and philosophical evolution of medicine, with the current medical practice.						X
PO.2.3.2.	recognizes the individual's behavior and attitudes and factors that determine the social dynamics of the community.						X
POD.2.4. Competencies Related to Social Awareness and Participation							
PO.2.4.1.	leads community with sense of responsibility, behavior and attitudes in consideration of individual behaviors and social dynamics of the community, and if there is a necessity, develops projects directed towards health care services.						X
POD.2.5. Competencies Related to Professional Attitudes and Behaviors							
PO.2.5.1.	displays a patient-centered and holistic (biopsychosocial) approach to patients and their problems.						X
PO.2.5.2.	respects patients, colleagues and all stakeholders in health care delivery.						X
PO.2.5.3.	displays the proper behavior in case of disadvantaged groups and situations in the community.						X
PO.2.5.4.	takes responsibility for the development of patient safety and healthcare quality.						X
PO.2.5.5.	evaluates own performance as open to criticism, realizes the qualifications and limitations.						X
PODG.3. Professional Development and Self-Worth							
PODG.3.1. Personal Development and Values							
PO.3.1.1.	embraces the importance of lifelong self-learning and implements .						X
PO.3.1.2.	embraces the importance of updating knowledge and skills; searches current advancements and improves own knowledge and skills.						
PO.3.1.3.	uses English language at least at a level adequate to follow the international literature and to establish communication related to the profession.						
POD.3.2. Competencies Related to Career Management							
PO.3.2.1.	recognizes and investigates postgraduate work domains and job opportunities.					X	
PO.3.2.2.	recognizes the application requirements to postgraduate work/job domains, and distinguishes and plans any requirement for further training and work experience.					X	
PO.3.2.3.	prepares a resume, and recognizes job interview methods.					X	
POD.3.3. Competencies Related to Protection and Development of Own Physical and Mental Health							
PO.3.3.1.	implements the rules of healthy living.						X
PO.3.3.2.	displays appropriate behavior specific to work under stressful conditions.						X
PO.3.3.3.	uses self-motivation factors.						X

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity or day	Duration (Hour)	Total Workload (Hour)
Course Duration (3 weeks)	15	5.5	82.5
Hours for off-the-classroom study (Pre-study, practice, review/week)	15	4	60
Homework	1	2	2
Exam	2	2	4
Total Work Load			148.5
Total Work Load / 30 (h)			4.95
ECTS Credit of the Course			5