Introduction to Ophthalmology
Mini-Elective
Spring 2021

Course Dates: March 31, April 7, 21, 28
Wednesdays, 6:00-8:00 PM

Maximum Students: 20

Class Year: MS1

Course Director: Evan Waxman, MD, PhD
Associate Professor of Ophthalmology

Contact Information: Joshua Ong
Ong.Joshua@medstudent.pitt.edu

Registration: Denise Downs, Office of Medical Education
ddowns@medschool.pitt.edu

Description:
Ophthalmology is a unique medical field in which students receive little exposure
during the course of medical school. However, eye complaints are prevalent in
many clinical settings, and it is highly beneficial to have some knowledge about the
most common eye problems, regardless of your future specialty. In this elective, we
will teach students about the ophthalmic history and physical examination, and we
will provide a basic introduction to the techniques of slit lamp, refraction, and reti-
noscopy. Students will also discuss common ocular pathology, such as cataracts,
glaucoma, conjunctivitis, and retinopathies in a case-based format. Additionally,
students will have the opportunity to gain exposure to ophthalmic surgery by
spending time in the operating room. At the end of the mini-elective, we hope that
students will have gained a strong foundation in basic ophthalmology.

Course Objectives:
1. To review the basic components of an ophthalmic history, including the chief
   complaint, history of present illness, past ocular history, and a pertinent review
   of systems.
2. To teach and practice proper eye examination techniques
3. To teach and practice the appropriate format of ophthalmic patient presenta-
   tions
4. To give students a general overview of slit lamp, refraction, and retinoscopy
   techniques and uses in clinical practice
5. To discuss common ocular pathology cases
6. To introduce students to ophthalmic surgery through shadowing experiences in
   the operating room and hands-on practice in the wet lab

Requirements for Certificate:
• Attendance and participation in all four sessions
• One day of shadowing in the OR (students will be provided with a schedule of
  options)
• Review all assigned readings in OphthoBook* (free online resource)

Prerequisites: None

Social Distancing Plan: During didactic sessions, students and instructors will be
socially distanced in a large room while wearing masks. The number of students
and instructors allowed in an exam room will be limited to 4. All students and
instructors will wear masks at all times and use gloves when handling equipment
and slit lamp spit shields. Students will also work at their own station in the wet
lab while wearing the appropriate protective equipment.

*Root T. OphthoBook - the free ophthalmology textbook for new students. Tim Root - Virtual Eye Pro-
COURSE OUTLINE

Dates: March 31, April 7, 21, 28

Course Director:
Evan Waxman, MD, PhD
Associate Professor of Ophthalmology

Faculty:
Evan Waxman, MD, PhD
Residents: Julia Shatten, MD, M.Ed; Caroline Vloka, MD
Students: Joshua Ong, Medical Student

Location:
Eye and Ear Institute, 9th Floor Conference Room

Sessions:

Session 1: Introduction to the Ophthalmic History and Physical Examination

a. The session will start with an overall introduction to the field of ophthalmology and its subspecialties. Students will be taught the basics of the ophthalmic H&P and will practice the exam on each other. The proper format of ophthalmology presentations will also be discussed.
b. **Recommended reading**: *OphthoBook* Chapters 1, 2

Session 2: Anterior Eye Pathologies

a. Students will discuss cases related to the anterior segment of the eye, such as cataracts, glaucoma, and corneal ulcers. Students will be taken to clinic rooms to learn how to perform slit lamp examination and, time permitting, refraction.
b. **Recommended reading**: *OphthoBook* Chapters 3, 10

Session 3: Posterior Eye Pathologies

a. Students will discuss cases related to the posterior segment of the eye, such as retinal detachment and diabetic retinopathy. Students will be taken to clinic rooms to learn how to perform the dilated fundus examination on each other, which will involve each student having one eye dilated.
b. **Recommended reading**: *OphthoBook* Chapter 4

Session 4: Eye Emergencies and Surgical Simulation

a. Students will discuss the evaluation of traumatic eye injuries and simple eye infections. After, there will be a hands-on surgical simulation activity in the wet lab.
b. **Recommended reading**: *OphthoBook* Chapters 5, 8

Session 5: Operating Room Experience (students will individually schedule)

a. Students will be paired with a current ophthalmology resident to shadow in the operating room. Alternatively, students can opt to be provided with a list of available attending surgeons whom they can contact and arrange a time to observe on their own.
b. **Recommended reading**: Review material related to the scheduled case(s)