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Introduction to Ophthalmology Mini-Elective Spring 2019

<u>Course Dates:</u>	April 3, 10, 24, May 1 Wednesdays, 6:00-8:00 PM
<u>Maximum Students:</u>	20
<u>Class Year:</u>	MS1
<u>Course Director:</u>	Evan Waxman, MD, PhD Associate Professor of Ophthalmology
<u>Contact Information:</u>	Evan Waxman, MD, PhD waxmane@upmc.edu
<u>Registration:</u>	Betsy Nero, Office of Medical Education betsy@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 retinoscopy. 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 presentations
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

*Root T. *OphthoBook* - the free ophthalmology textbook for new students. Tim Root - Virtual Eye Professor. <https://timroot.com/ophthobook/>. Published 2017. Accessed August 3, 2018

COURSE OUTLINE

Introduction to Ophthalmology
April 3, 10, 24, May 1
Wednesdays, 6:00-8:00 PM

Course Director:

Evan Waxman, MD, PhD
Associate Professor of Ophthalmology

Faculty:

Evan Waxman, MD, PhD
Residents: Peter Mortensen, MD
Students: Kevin Keppel, MS-4; Ryan Williamson, MD/PhD Candidate

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)