



# Professional Enrichment Course

University of Pittsburgh School of Medicine

Office of Medical Education

## Introduction to Ophthalmology

<b>Goal:</b>	<ol style="list-style-type: none"> <li>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</li> <li>2. To teach and practice proper eye examination techniques</li> <li>3. To teach and practice the appropriate format of ophthalmic patient presentations</li> <li>4. To give students a general overview of slit lamp, refraction, and retinoscopy techniques and uses in clinical practice</li> <li>5. To discuss common ocular pathology cases</li> <li>6. To introduce students to ophthalmic surgery through shadowing experiences in the operating room and hands-on practice in the wet lab</li> </ol>
<b>Brief Description:</b>	<p>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, the wetlab, and on the EyeSi simulator. At the end of the course, we hope that students will have gained a strong foundation in basic ophthalmology.</p>
<b>Class Year:</b>	MS1
<b>Organizer:</b>	<p>Director: Evan Waxman, faculty MD; waxmane@upmc.edu          Matthew Pihlblad, faculty MD; matthew.pihlblad2@chp.edu          Amani Davis, resident MD; aad75@pitt.edu          Arman Zarnegar, MS4; ayz4@pitt.edu          Rajan Alagar, MS3; raa253@pitt.edu</p>
<b>Administrator/Coordinator contact info:</b>	PEC Registrar – Denise Downs ddowns@pitt.edu 412-648-8749
<b>Department:</b>	Ophthalmology
<b>Capacity (# of students):</b>	20
<b>Location:</b>	Mercy Vision Institute

<b>Reporting Info/First Day Location</b>	Mercy Vision Institute
<b>Maximum # of students</b>	20
<b>Minimum # of students</b>	10

**Requirements:** Attendance and participation in all four sessions. One day shadowing in the OR (students will be provided with a schedule of options). Review assigned readings.

**Texts:** Root T. OphthoBook - the free ophthalmology textbook for new students. Tim Root - Virtual Eye Professor. <https://timroot.com/opthobook/>. Published 2017.

<b>MS1 (Class of 2028)</b>			
<b>Week</b>	<b>Start Date (Mon)</b>	<b>End Date (Fri)</b>	<b>Available?</b>
30	2/24	2/27	

	<b>MON</b>	<b>TUE</b>	<b>WED</b>	<b>THU</b>	<b>FRI</b>
<b>AM</b>					
<b>PM</b>	2/24, 6-8 pm	2/25, 6-8 pm	2/26, 6-8 pm	2/27, 6-8 pm	
<b>Schedule splitting:</b>  <b>Would it be possible for students to take SOME of the weekly schedule (e.g., just mornings or just a few half-days), or would you prefer that a student take the schedule in its entirety?</b>  <b>[bold your choice]</b>			Partial OK  <b>Full required:</b> Attendance and participation in all four sessions. One day shadowing in the OR.		
<b>If so above, please designate which parts of your schedule this would impact</b>					

## **COURSE OUTLINE**

**Dates:** 2/24, 2/25, 2/26, 2/27/2025, 6-8 pm

### **Course Director:**

Matthew Pihlblad, MD

Assistant Professor of Ophthalmology

### **Faculty:**

Evan Waxman, MD, PhD

Matthew Pihlblad, MD

Resident: Amani Davis, MD

Students: Arman Zarnegar, Rajan Alagar

### **Location:**

Mercy Vision Institute

### **Session 1: Introduction to the Ophthalmic History and Physical Examination**

1. 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. 2. Recommended reading: OphthoBook Chapters 1 & 2 (Eye History and Physical, Anatomy of the Eye)

### **Session 2: Anterior Eye Pathologies**

1. 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 refraction. 2. Recommended reading: OphthoBook Chapters 3 & 10 (Introduction to Glaucoma, Introduction to the Lens and Cataract Surgery)

### **Session 3: Posterior Eye Pathologies**

1. 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. 2. Recommended reading: OphthoBook Chapter 4 (Beginner's guide to the Retina)

### **Session 4: Eye Emergencies and Surgical Simulation**

1. Students will discuss the evaluation of traumatic eye injuries and simple eye infections. Afterwards, students will be taken to the wet lab to have individual hands-on surgical simulation. 2. Recommended reading: OphthoBook Chapters 5 & 8 (Eye Infections, Common Eye Trauma)

### **Session 5: Operating Room Experience (Students will schedule individually)**

1. Students will be paired with a current ophthalmology resident to shadow in the operating room. Students can also be provided with a list of available attending surgeons whom they can contact and arrange a time to observe on their own.

2. Recommended reading: Review any assigned material and chapters related to the scheduled case