

# Ophthalmology and Visual Sciences

## Chair

Keith D. Carter

**Professional certificate:** orthoptics

**Faculty:** <https://eye.medicine.uiowa.edu/profile/>

**Website:** <https://eye.medicine.uiowa.edu/>

Ophthalmology is a medical and surgical specialty concerned with the diagnosis and treatment of diseases of the eye and its surrounding structures. The Department of Ophthalmology and Visual Sciences combines postgraduate training with research and patient care in all aspects of the visual sciences. Subspecialties represented in the department include cataract surgery, comprehensive ophthalmology, cornea and external diseases, contact lens and refraction services, genetics and molecular biology, glaucoma, laser refractive surgery, neuro-ophthalmology, oculoplastic surgery, ocular echography, ocular pathology, ocular vascular diseases, optometric services, pediatric ophthalmology and adult strabismus, vitreoretinal disorders, and vision rehabilitation.

## Continuing Education

The department sponsors clinical conferences open to community ophthalmologists in Iowa and surrounding states where physicians can earn continuing medical education credits. The department also sponsors an annual alumni meeting with participation by nationally and internationally recognized ophthalmologists and vision scientists.

## Programs

### Professional Program of Study

#### Certificate

- Certificate in Orthoptics

## MD Training

### MD Student Training, Graduate Education

The department offers clinical and research training to MD students. A three-year residency program with clinical experience in the ophthalmic subspecialties is offered to physician trainees. Graduates qualify for the written and oral examinations leading to certification by the American Board of Ophthalmology. Postgraduate fellowships of one to two years are available for qualified ophthalmologists in most subspecialty areas.

## Facilities

The department maintains research laboratories for cell biology, biochemistry, morphology, tumor diagnosis, pathology, electrophysiology, pupillography, molecular biology, and vascular disease. Clinical facilities in ophthalmology are available at University of Iowa Health Care in the Pomerantz Family Pavilion, the University of Iowa Stead Family Children's Hospital in the Pediatric Specialty

Clinic, the Iowa River Landing, the VA Iowa City Health Care, and the VA Central Iowa Health Care in Des Moines. The department also manages outreach programs in other communities. The John and Marcia Carver Nonprofit Genetic Testing Laboratory, dedicated to providing affordable testing for rare eye diseases, is associated with the department.

## Courses

### Ophthalmology and Visual Sciences Courses

<b>OPHT:8008 Corneal Medical Student Research Fellowship</b>	<b>0 s.h.</b>
One-year, full-time membership in established research laboratory in the Department of Ophthalmology or collaborating laboratory. Requirements: MD enrollment.	
<b>OPHT:8301 Clinical Ophthalmology</b>	<b>2 s.h.</b>
All aspects of clinical ophthalmology; clinical experience, lectures, case presentations; clinical duties with staff, residents, and faculty in University of Iowa Health Care and VA Iowa City Health Care ophthalmology clinics. Requirements: MD enrollment.	
<b>OPHT:8401 Cornea and Anterior Segment of the Eye</b>	<b>4 s.h.</b>
Common diseases of eyelid, conjunctiva, and cornea.	
<b>OPHT:8402 Elective in Neuro-Ophthalmology</b>	<b>4 s.h.</b>
Visual, ocular motor dysfunction due to neurologic disease; patient work-up, readings, neuro-ophthalmology rounds.	
<b>OPHT:8403 Molecular Ophthalmology</b>	<b>4 s.h.</b>
Use of recombinant DNA, tissue culture, protein electrophoresis in study of inherited eye diseases.	
<b>OPHT:8404 Elective in Ocular Pathology</b>	<b>4 s.h.</b>
Pathophysiology of eye disease.	
<b>OPHT:8405 Advanced Ophthalmology - Veterans Affairs</b>	<b>4 s.h.</b>
Opportunity for in-depth clinical experience in assessment and management of ophthalmology patients; students serve on the VA Iowa City Health Care ophthalmology team and see outpatients and emergency room visits alongside residents and faculty.	
<b>OPHT:8406 Plastic and Reconstructive Surgery</b>	<b>4 s.h.</b>
Topics in ophthalmic plastic and reconstructive surgery.	
<b>OPHT:8497 Research in Ophthalmology</b>	<b>arr.</b>
Medical research, clinical or laboratory projects; individual study.	
<b>OPHT:8498 Ophthalmology On Campus</b>	<b>arr.</b>
<b>OPHT:8499 Ophthalmology Off Campus</b>	<b>arr.</b>