

# **PRE-OPTOMETRY**

## THE OPTOMETRY PROFESSION

Optometry is the primary health profession dedicated to caring for vision. Through academic and clinical training, optometrists acquire the knowledge and skills needed to diagnose, treat, and prevent vision problems. Providing health education, managing curative or preventative regimens, and supplying specialized vision care are all part of an optometrist's work. There are several pathways in the field of optometry: Optometrist, Ophthalmologist, and Optician.

# **Optometrist**

An optometrist is an eye doctor who has earned the Doctor of Optometry (OD) degree. Optometrists examine eyes for both vision and health problems, and correct refractive errors by prescribing eyeglasses and contact lenses. An optometrist generally must complete a four-year baccalaureate degree, plus four years of post-graduate professional training in optometry school.

# **Ophthalmologist**

An ophthalmologist is a medical doctor (MD) or osteopathic doctor (DO) who specializes in eye and vision care. Like optometrists, ophthalmologists can write prescriptions for eyeglasses and contact lenses, perform eye exams, and diagnose and treat disease. Unlike optometrists, ophthalmologists are able to perform eye surgeries. An ophthalmologist generally must complete a four-year baccalaureate degree, four years of medical school, one year of internship, and a minimum of three years of hospital-based residency in ophthalmology.

# Optician

An optician is not an eye doctor, but they are an important part of eye care. Opticians use prescriptions written by an optometrist or an ophthalmologist to fit and sell eyeglasses and other eyewear. Some states require opticians to complete a training program and be licensed, while other states do not.

## UNDERGRADUATE PREPARATION

Most optometry schools require the completion of a baccalaureate degree prior to admission to their program, while some require the completion of a certain number of semester credit hours. Typically, any major is acceptable. The most common undergraduate majors among optometry graduate students include biology, chemistry, and mathematics. In selecting a college major, consider how you will satisfactorily complete the prerequisite courses for your desired optometry graduate program, in addition to graduation requirements of Nebraska Wesleyan.

#### REQUIRED AND RECOMMENDED COURSES

Although there is no required undergraduate major to enter the field of optometry, each institution will have a required list of pre-requisite coursework that must be completed. Some programs accept AP/CLEP/other transfer credits, while others do not. To the right is a list of general courses and credits for optometry school based on University of Missouri-Saint Louis. Students should contact their desired graduate school directly for specific pre-requisite requirements, transfer equivalencies, or other questions.

Courses	Credits
English Composition	6
Math	6
(Calculus, Statistics)	
Biological Sciences	12
Chemistry	12
Physics	8
Psychology	3
Liberal	6
Arts/Humanities	

## **BEYOND ACADEMICS**

Pre-optometry students are encouraged to participate in experiences such Arts/Humanities as leadership activities, volunteer opportunities, research, and shadowing of professionals to help prepare them for optometry school and the profession. Activities beyond the classroom play a significant role in a student's application to a professional school program as they demonstrate a commitment to and knowledge of the profession. In particular, shadowing optometrists or ophthalmologists will help students learn more about the daily activities of the optometry profession.

At Nebraska Wesleyan, interested students should consider joining Pre-Health Club and Biology Club. As well, consider Beta Beta (Biology Honorary).

#### OPTOMETRY EDUCATION

There are over 20 accredited optometry schools in the United States, although there are none in Nebraska. Regional schools include Indiana University and the University of Missouri at St. Louis. The total number of credit hours required for degree completion may vary from school to school. Some institutions offer joint degrees, postdoctoral residencies, and fellowships.

## **APPLICATION & ADMISSION**

- 1. Applications to most optometry programs are completed through the centralized application service, OptomCAS. See website for application process information.
- 2. Most schools require applicants to take the Optometry Admission Test (OAT), which is a computer-based exam. Some schools consider the Medical College Admissions Test (MCAT) an acceptable substitute for the OAT. Information about the OAT is available at the Association of Schools and Colleges of Optometry (ASCO). Consider taking the OAT or MCAT 12-16 months before you intend to start your optometry program. Also, consider taking a free practice test of the MCAT or OAT through the NWU Library Mometrix database.
- 3. Note that many schools require letters of recommendation, a personal statement, and interviews for admission.

School	Credit Requirement	Avg. OAT Score	Avg. GPA	Length of Program	Degree Offered
University of Houston	Bachelor's Degree	Total Science: 326 Academic Average: 331	3.67	4 years	OD
Indiana University	90 credit hours	Not available	3.8	4 years	OD
University of  Missouri –  St. Louis	90 credit hours	Total Science: 273 Academic Average: 292	3.43	4 years	OD
Ohio State University	Bachelor's Degree; in some cases, 90 credit hours/3 years of undergraduate	Total Science: 358 Academic Average: 356	3.75	4 years	OD
Illinois College of Optometry	90 credit hours	Total Science: 318 Academic Average: 324	3.51	4 years	OD
Southern College of Optometry (Tennessee)	90 credit hours	Total Science: 324 Academic Average: 333	3.68	4 years	OD

# **ADDITIONAL RESOURCES**

**Explore Health Careers** 

Association of Schools and Colleges of Optometry (ASCO)

American Optometric Student Association (AOSA)

National Optometric Association (NOA)

Current students can use the Career Assistance Network to connect with NWU alumni in the optometry profession.

