

Pre-Optometry Program

UNIVERSITY OF CENTRAL ARKANSAS



FACTS ABOUT OPTOMETRY

DID YOU KNOW?

Doctors of optometry are independent primary health care providers who examine, diagnose, treat, and manage diseases and disorders of the visual system, the eye, and associated structures, as well as diagnose related systemic conditions.

Optometrists examine the internal and external structure of the eyes to diagnose eye diseases like glaucoma, cataracts, and retinal disorders; systemic diseases like hypertension and diabetes; and vision conditions like nearsightedness, farsightedness, astigmatism, and presbyopia.

Optometrists:

- Provide primary eye care services including the examination, diagnosis, and treatment of conditions of the eye and minor surgical procedures such as the removal of foreign bodies;
- Prescribe medication to treat eye disease;
- Treat glaucoma in 42 of the 50 states plus the District of Columbia;
- Perform pre- and post-operative evaluation and follow-up care;
- Evaluate vision acuity (refraction) and prescribe corrective lenses or devices;
- Do testing to determine the patient's ability to focus and coordinate the eyes; and to judge depth and see colors accurately;
- Sell and dispense spectacles and contact lenses; and
- Provide vision therapy and low vision rehabilitation services.

Medicare has recognized optometrists, practicing within the scope of their state licensure, as physicians for the purposes of Medicare reimbursement. Optometry uses the same diagnosis and procedure codes as medicine.

More than 70% of an estimated 88 million primary eye examinations, including refractions, in the United States each year are conducted by optometrists.

Optometrists are located in nearly 7,100 communities throughout the United States. In more than 4,300 communities nationwide, optometrists are the only primary eye and vision care providers. Optometry has greater geographic distribution and is more accessible than other eye care professions. Optometrists frequently have accessible evening and weekend hours, which makes them an important alternative to emergency room care.

A recent poll indicates two-thirds of surveyed employees would trade at least one vacation day for vision coverage, and most of them would trade two.

There are approximately 147 million wearers of corrective lenses (either eyeglasses and/or contact lenses) in the United States, representing about 55% of the population.

A minor vision problem may be the cause of end-of-the-workday irritability, headaches, or body aches and pains.

In *The State of Managed Care Quality 1998*, the National Committee for Quality Assurance (NCQA) suggests that to eliminate one potential obstacle to diabetic retinal exams, health plans should consider allowing diabetic patients to see their optometrists annually without a referral or co-pay. (Diabetes is the leading cause of adult blindness in the United States.)

The American Diabetes Association published guidelines, *Clinical Practice Recommendations 1999*, which state that a diabetic patient should be referred to an ophthalmologist or optometrists.

The American Public Health Association policy resolution (1997) “urges health providers to identify and routinely refer patients at high risk of glaucoma to ophthalmologists and optometrists for a dilated eye examination, diagnosis, and subsequent management.”

Optometry is the only health care profession that requires continuing education for license renewal in all 50 states.

BECOMING AN OPTOMETRIST

The 1990s can be characterized as a period of change in health care and health care delivery systems. These changes now provide both exciting and challenging opportunities, as well as responsibilities, for all health professionals including optometrists. Students pursuing health careers must be intelligent, scientifically curious, motivated, and socially conscious. Optometry students must meet all of these requirements just like any other health professional student. The profession of optometry actively seeks men and women of many backgrounds and cultures who want to make a difference.

What is Optometry?

The American Optometric Association (AOA) published the latest definition of an optometrist in 1993 as follows: “Doctors of Optometry are independent primary health care providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures, as well as diagnose related systemic conditions.”

In October of 1993, the AOA published the Mission of the Profession of Optometry which states: “The mission of the profession of optometry is to fulfill the vision and eye care needs of the public through clinical care, research, and education, all of which enhance the quality of life.”

Optometry is both an art and a science. Today’s practitioner is no longer just a provider of eyeglasses. The optometrist of today must have a strong background in the biological sciences, as well as chemistry and physics. The optometrist must fully understand the interrelationships between all of the body’s systems and the effect of systemic changes on the patient’s health, including ocular health. The optometrist must be ready to treat the whole patient and to participate as part of the health care team.

There are approximately 29,500 optometrists involved in direct patient care, practicing in about 7,000 communities across the nation. Optometrists provide about 60 percent of the basic vision care in this country today. They are the only providers of eye care thoroughly trained in all

aspects of both visual science and optical science. With the changing population in the United States, the need for optometrists continues to grow. As career and job opportunities increase in the service and information technology fields, the need for good visual functioning will be high. This applies equally to children trying to meet the high demands of today's educational system as well as to adults seeking jobs in the marketplace. In addition, as the mean age of the U.S. population continues to rise and as older segments of the population continue to grow, the need for vision care will continue to expand to meet the demands required for maintaining a quality of life to which we have all grown accustomed.

Opportunities in Optometry

Optometrists have the satisfaction of helping their patients care for the most highly valued human sense - sight. All optometrists provide general eye and vision care. Most are in general practice, while others are involved in specialty practice such as contact lenses, geriatrics, low vision services (for visually impaired patients), occupation vision (to protect and preserve worker's vision and minimize eye strain), pediatrics, sports vision, and vision therapy. Still others choose to enter optometric education and/or perform scientific research.

Most optometrists are self-employed, receive relatively few emergency calls, and can establish a flexible working schedule which allows them to combine a fulfilling professional career with a very satisfying personal life.

Optometrists practice in rural communities, suburban areas, and large metropolitan cities. Some practice alone while others are in group practices. Some optometrists practice with other health care professionals in multi-disciplinary settings. Other optometrists choose a career in the military, public health, or other government service. Opportunities also exist to practice in hospitals, clinics, teaching institutions, community health centers, or in the ophthalmic industry.

Although income varies based on the types of practice, optometrists earn a very comfortable living. According to the 2003 AOA economic survey, the 2002 mean net income of practicing optometrists was \$213,776 and the median net income was \$155,000.

Rewards of Practicing Optometry

Like all health care professionals, optometrists derive great personal satisfaction from their daily professional life. They are highly regarded in their communities for their contributions to the health and welfare of the people.

Demand for optometric services is growing because of public awareness and the importance of vision in daily life, both occupationally and recreationally. The growth of optometry's inclusion in health insurance and third party payment plans further supports the demand for optometrists.

PRE-OPTOMETRY AT THE UNIVERSITY OF CENTRAL ARKANSAS

FREQUENTLY ASKED QUESTIONS:

#1 What is Optometry?

Optometry is a profession of specialists who diagnose and correct defects in vision. Optometrists differ from “opticians” (who make, repair, and sell corrective lens) and from “ophthalmologists” (who are M.D.s specializing in the function/dysfunction of the eye).

#2 What training does an Optometrist require?

Practicing optometrists must earn a doctorate degree which involves a four-year program of study (Doctor of Optometry) in a school/college of optometry.

#3 What is the Pre-Optometry program at UCA?

The goal of the pre-optometry program is to provide students with the academic skills and background knowledge necessary for acceptance into any of the 17 US Optometry Doctoral Programs (see #10). The majority of the required courses (see #4 table below) are common to most optometry programs. Optometry schools prefer applicants who acquire a bachelor’s degree before entry. Students entering optometry school before having completed a UCA bachelor’s degree might be able to complete the requirements for a UCA degree with their optometry school course work, provided they have completed 96 credit hours of prescribed course work at UCA.

#4 Which courses are required before one can apply to an Optometry Doctorate Program?

REQUIRED COURSES	REQUIRED CREDIT HOURS	UCA EQUIVALENT
English/Writing	12 credits	various choices
Psychology	3 credits	PSYC 1300
Social Sciences	6 credits	various choices
Biology	8 credits	BIOL 1440 & 1441
Chemistry	8 credits	CHEM 1450 & 1451
Physics	8 credits	PHYS 1410 & 1420
Organic Chemistry	8 credits	CHEM 2401 & 3411
Anatomy & Physiology	4 credits	BIOL 2405
Microbiology	4 credits	BIOL 2411 or 3420
Statistics	3 credits	MATH 2311 or PSYC 2330
Algebra and Trig	5 credits	MATH 1390 & 1392 or MATH 1580
Calculus	4 credits	MATH 1396 or 1591
Biochemistry	3-4 credits	CHEM 4320

Be sure to check each school’s specific requirements at http://www.opted.org/info_profile1.cfm

5 Do I have to complete a Bachelor's degree before applying to Optometry Schools?

Although highly recommended, applicants to optometry doctorate programs need only complete 90 credit hours, including the required courses (see #4). However, applicants with a Bachelor's degree will have more success at entering the optometry graduate program of their choice. All graduates from UCA must select a major and a minor.

#6 What is the best choice for a Major if I might be interested in applying to an optometry doctorate program?

Students apply to optometry schools with a variety of undergraduate majors; however, the Biology major requirements most closely match those of the various optometry schools (see #4).

a) The Biology Major requires 9 or 10 additional courses that are not required of optometry applicants: Genetics (BIOL 2490), Cell Biology (BIOL 3402), Ecology (BIOL 4403), 20 credits of Biology Electives (~ 5 courses), and one or two other courses for the minor (see #7).

b) Anatomy & Physiology (BIOL 2405), Microbiology (BIOL 2411), and Psychological Statistics (PSYC 2330) do not count towards a Biology major.

c) Courses of interest to pre-optometry students and which count as electives for the Biology Major include: General Pharmacology (BIOL 4351), Experimental Neurobiology (BIOL 4425), Comparative Vertebrate Anatomy (BIOL 4430) and Biochemistry (CHEM 4320).

#7 Which Minors are most appropriate and require the least number of additional courses?

The Physical Science Minor requires one additional course: Descriptive Astronomy (PHYS 1401) or Advanced Physics (PHYS 2430).

The Chemistry Minor requires two additional courses: Quantitative Analysis (CHEM 3520) and a 3-credit upper division elective e.g., Biochemistry (CHEM 4320).

A Business minor is also useful if you wish to be self-employed. Contact the College of Business for more information.

#8 Any other recommendations?

a) To optimize your chances of acceptance, you should keep your grade point as high as possible, so don't overload on difficult courses in the same semester!

b) Optometry program admissions staff recommend that you spend time at an optometry clinic for either pay, credit*, or on a volunteer basis. (* - may be counted towards Biology Major elective credit)

c) Be sure and schedule your OAT (see #9 below) 60-90 before your desired test date. Take the test early as you may choose to retake it. You must wait 90 days between each time you take the exam.

#9 Are there any other requirements for Optometry Doctorate Program Applicants?

All applicants must take the *Optometry Admissions Test*, which costs \$199.00 in 2008.

For more information and application forms contact:

Optometry Admission Testing Program, 211 East Chicago Ave., Suite 600, Chicago, IL 60611-2678 1800-232-2159

Or

http://www.opted.org/info_oat.cfm

CHECK WITH INDIVIDUAL SCHOOLS FOR APPLICATION DEADLINES!!

#10 How many Optometry Programs are there in the United States? Answer: 16

ASSOCIATION OF SCHOOLS AND COLLEGES OF OPTOMETRY (ASCO) STUDENT AFFAIRS AND/OR ADMISSIONS OFFICES revised 12/2007		
Illinois College of Optometry 3241 S. Michigan Ave. Chicago, IL 60616 Phone: (312) 949-7400 Toll-free (800) 397-2424 http://www.ico.edu	NOVA Southeastern University College of Optometry 3200 S. University Dr. Fort Lauderdale, FL 33328 Phone: (954) 262-1101 Toll-free: (800) 356-0026 (ext. 1125) http://www.nova.edu	Indiana University School of Optometry 800 East Atwater Ave Bloomington, IN 47405 Phone: (812) 855-1292 http://www.opt.indiana.edu
The Ohio State University College of Optometry 338 W. Tenth Ave. Columbus, OH 43210-1240 Phone: (614) 292-2647 Toll-free: (866) 678-6446 http://optometry.osu.edu	University of California Berkeley School of Optometry 390 Minor Hall Berkeley, CA 94720-2020 Phone: (510) 642-9537 http://optometry.berkeley.edu	Pacific University College of Optometry 2043 College Way Forest Grove, OR 97116 Phone: (503) 352-2900 Toll-free: (800) 933-9308 http://www.opt.pacificu.edu
Southern California College of Optometry 2575 Yorba Linda Blvd. Fullerton, CA 92831 Phone: (714) 449-7445 Toll-free: (800) 829-9949 http://www.scco.edu	Michigan College of Optometry at Ferris State University 1310 Cramer Circle Big Rapids, MI 49307-2738 Phone: (231) 591-3703 Toll-free: (800) 433-77479 ext 3703 http://www.ferris.edu/mco	Pennsylvania College of Optometry 8360 Old York Rd. Elkins Park, PA 19027 Phone: (215) 780-1301 Toll-free: (800) 824-6262 http://www.pco.edu

Northeastern State University College of Optometry 1001 N. Grand Ave. Tahlequah, OK 74464 Phone: (918) 456-5511 ext 4036 http://arapaho.nsuok.edu/~optometry	The New England College of Optometry 424 Beacon Street Boston, MA 02115 Phone: (617) 236-6207 Toll-free: (800) 824-5526 http://www.neco.edu	Southern College of Optometry 1245 Madison Ave. Memphis, TN 38104 Phone: (901) 722-3224 Toll-free: (800) 238-0180 http://www.sco.edu
State University of New York State College of Optometry 33 West 42 nd ST New York, NY 10036-8003 Toll-free: (800) 291-3937 http://www.sunyopt.edu	University of Houston College of Optometry 505 J Davis Armistead Bldg Houston, TX 77204-2020 Phone: (713) 743-1969 Toll-free: (800) 282-8426 http://www.opt.uh.edu	University of Alabama at Birmingham School of Optometry/The Medical Center 1716 University Boulevard Birmingham, AL 35294-0010 Phone: (205) 934-6150 http://www.uab.edu/optometry
University of Missouri - St. Louis College of Optometry - Office of Admissions One University Blvd St. Louis, Missouri 63121 Phone: (314) 516-6263; Toll Free (888) EYE-UMSL http://www.umsl.edu/divisions/optometry		

#11. Are there other Optometry schools in North America?

University of Montreal School of Optometry http://www.opto.umontreal.ca	University of Waterloo School of Optometry http://www.optometry.uwaterloo.ca	Inter American University of Puerto Rico, School of Optometry http://www.optonet.inter.edu
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#12. Where can I get more information?

The UCA pre-optometry Faculty Advisor is Dr. Kari Naylor, Department of Biology, 139 Lewis Science Center, Conway, AR 72035, email: kknaylor@uca.edu , Phone: 501-450-5826.