



## **Attributes of Students Graduating from Schools and Colleges of Optometry**

### ***A 2011 Report from the Association of Schools and Colleges of Optometry***

Accepted by the Board of Directors  
October 11, 2011

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#### **Doctors of Optometry**

*(American Optometric Association (AOA) definition)*

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.

#### **Introduction**

In 2000, the optometric community jointly developed an initial statement of attributes expected of students graduating from schools and colleges of optometry. That effort resulted in "Attributes of Students Graduating from Schools and Colleges of Optometry: An Association of Schools and Colleges of Optometry Report," which was accepted by the ASCO Board of Directors on June 20, 2000. [Heath D, Daum K, DiStefano A, Haine C, Schwartz S. Attributes of students graduating from schools and colleges of optometry. *Optom Educ.* 2000 Fall;26(1):15-18.] This report provided a clearer understanding of entry-level competency and/or the competencies expected of students graduating from optometry degree programs in the United States.

To keep current, the Association of Schools and Colleges of Optometry periodically reviews and revises its policies. Accordingly, this 2011 revision of the Attributes Report represents contemporary thinking about the requisite competencies for new

graduates of optometry programs, recognizing trends in contemporary health care education and health care delivery systems. Educational program management within optometry, as in all health care disciplines, is evolving with:

- improved descriptions of desired educational outcomes
- enhanced mechanisms assessing attainment of those outcomes on an individual student level as well as on a collective programmatic level
- expanding strategies that provide for ongoing scrutiny of individual and programmatic results while making appropriate adjustments to the outcomes as well as to the techniques used to teach/develop those outcomes.

This systems approach, which emphasizes the attainment of requisite competencies, is consistent with trends in medical education aimed at the achievement of best possible outcomes while also documenting those outcomes for a variety of internal (e.g., curricular managers, individual faculty teaching courses, administrators with overall institutional responsibility) and external (e.g., accreditors, trustees with fiduciary oversight responsibility, prospective students seeking educational value) groups seeking validation of the attainment of educational goals by the institution as a whole.

Notably, early accreditation efforts documenting the delivery of quality educational programs by the institution focused on time (e.g., clock hours in courses), content and the resources available for learning (e.g., appropriate credentials of faculty, square feet of class space, number of volumes in the library). More modern approaches to accreditation recognize that learning may take place in a variety of contexts that differ with respect to time devoted or resources used, and that, in fact, time and content are indirect and imperfect indicators of learning. Rather, health care education programs and their accreditors must focus on the student's (provider's) demonstration of competency for which attitudes, knowledge and skills are prerequisite.

Accordingly, current thinking reflects a concentration on results as well as confirming the presence of systems to appropriately monitor programs and students. This approach encourages adjustments based on assessments of outcomes.

"Attributes of Students Graduating from Schools and Colleges of Optometry" provides, as a national resource, a series of competency statements that broadly define the attributes expected of students graduating from any one of the schools or colleges of optometry in the United States. The faculty of each institution holds the responsibility to develop curriculum, and to assess and verify that each graduate has demonstrated the attributes described.

The attributes of students graduating from schools and colleges of optometry have been classified in three areas: Professional Values and Ethics, Knowledge and Skill. The faculty at each educational institution has a profound responsibility to develop, monitor and maintain a set of educational outcomes that:

- define specific educational outcomes for each attribute
- include effective and comprehensive assessment methods that provide accurate and reliable data on the achievement of specific and related outcomes
- reflect a system of management that provides for ongoing, critical appraisal of educational programming with a commitment to revise the outcomes, resources devoted (time, faculty, teaching methodology) or assessment methodology to assure achievement of the goals of the

program, even as the knowledge and the health care system evolves.

The important and valuable task of managing and/or evaluating the achievement of educational outcomes certifying that graduates of schools and colleges of optometry possess appropriate attributes to allow them to serve the needs of the public is an ongoing and significant task. The members of the Association of Schools and Colleges of Optometry welcome this responsibility and remain fully engaged in this process.

### **Assumptions**

The attributes expected of a new graduate reflect a body of knowledge, skills and professional attitudes at the start of a professional career. The knowledge, skills and attitudes that are appropriate at the point of entry into the practice of optometry are not defined in isolation; rather they are affected by many variables including, but not limited to, state laws, the nature of the educational process, the structure of the profession, health care policies, the economy and technology. What follows are the planning assumptions upon which the report "Attributes of Students Graduating from Schools and Colleges of Optometry" has been based. These may be classified into two broad categories: 1) the nature of the Doctor of Optometry as a health care provider, and 2) the nature of the educational and professional environments.

### **The nature of the Doctor of Optometry as a health care provider**

Doctors of Optometry are:

- expected to manage every relevant condition in a manner that assures safe and effective care for the patient
- aware of their individual competencies and conduct themselves accordingly ("as taught")
- responsible for ongoing self-learning and for remaining current and competent in their knowledge and skills
- expected to utilize all resources, including ancillary personnel, intra- and inter-professional collaboration, co-management and referral in securing the best possible care for their patients
- expected to conduct themselves according to the profession as expressed in the Optometric Oath and AOA Code of Ethics
- expected to manage their practices in a manner that is appropriate within the health care delivery system and that promotes patient access to eye and vision care.

### **The nature of the educational and professional environments**

- The central goal of Doctor of Optometry degree programs is to prepare students to enter into the general practice of optometry.
  - The Doctor of Optometry will continue to be a post-baccalaureate degree program.
  - Additional post-graduate education and training opportunities provide advanced practice skills and knowledge in specialized areas beyond those required for the general practice of optometry.
  - The practice of optometry is regulated by State Boards of Optometry and requires an independent assessment of competencies prior to licensure.
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## **The New Doctor of Optometry Must be Professional and Ethical**

To serve the public and the profession well, new graduates must embrace and demonstrate the ethical and professional standards appropriate to being recognized as a health care provider. The new graduate must also recognize that the completion of the Doctor of Optometry degree program is only the first step in a life-long commitment to self-directed learning and continual professional improvement.

The school or college of optometry shall ensure that before graduation each student will have demonstrated critical professional and personal attributes, including the following.

### **Personal attributes:**

- a commitment to life-long learning and providing the highest standard of care
- the ability to acquire, analyze and apply new information while making reasonable and informed decisions that are consistent with the interests and needs of the patient and broader community
- problem-solving and critical-thinking skills that integrate current knowledge, scientific advances and the human/social dimensions of patient care to assure the highest quality of care for each patient
- the ability to recognize personal limitations regarding optimal patient care and to work with the broader health care community in providing the best care possible.

### **Professional attributes:**

- an understanding of professional ethics and challenges to the optometric profession posed by conflicts of interest inherent in health care delivery, and the ability to incorporate those principles into decisions affecting patient care, always keeping the patient's welfare foremost
- professionalism, by demonstrating honesty and integrity in all interactions with patients and their families, colleagues and others with whom the optometrist must engage in his/her professional life
- a respect for the dignity of every patient and a commitment to empathetic and confidential care
- a commitment to work as an integral member of the larger inter-professional health care team to improve patient care outcomes
- a commitment to be actively involved in organized optometry and the community.

## **The New Doctor of Optometry Must be Knowledgeable**

To provide quality eye and vision care to their patients, graduating Doctors of Optometry must have an established knowledge of the basic and clinical sciences. The foundation must be broad and include the biological, medical, vision and optical sciences, as well as a basic understanding of the health care delivery system. The Doctor of Optometry must recognize the dynamic nature of knowledge and possess the commitment and skills needed to responsibly assess and apply new information and treatment strategies throughout his/her career.

The school or college of optometry shall ensure that before graduation each student will have demonstrated knowledge of:

- basic organ systems, with special emphasis on the ocular and visual system, and their inter-relationships to the body as a whole

- the cellular, molecular and genetic basis of the development, physiology, pathology and treatment of eye disease
- the structures and processes contributing to the development of refractive error and other optical and perceptual abnormalities of the visual system (This includes vision function with respect to deviation and enhancement such as, but not limited to, strabismus, amblyopia, oculomotor function, accommodation and visual perception.)
- the optics of the eye and ophthalmic lens systems (including spectacles, contact lenses and low vision devices) used to correct refractive, oculomotor and other vision disorders
- the various processes and causes that lead to dysfunction and disease, and the effect that these processes can have on the body and its major organ systems, with special emphasis on the ocular and visual systems
- mechanisms of action of the various classes of pharmaceutical agents, their interactions and their safe and effective use for the treatment of diseases and conditions affecting the eye and visual system
- vision therapy and other rehabilitative methods used for the management of common visual disorders
- the psychosocial dynamics of the doctor/patient relationship and understanding of the social, psychological and economic forces affecting diverse patient populations
- community health care resources and delivery systems to improve care
- practice management structures and strategies as they pertain to the various practice settings.

### **The New Doctor of Optometry Must be Capable**

To provide the highest quality of care to their patients, Doctors of Optometry must possess appropriate cognitive and motor skills needed to prevent, diagnose, treat and manage clinical conditions that are within the scope of their professional responsibilities.

The school or college of optometry shall ensure that before graduation each student will have demonstrated:

- all the skills required for the diagnosis, triage, management and/or treatment of common visual conditions, including or resulting from:
  - refractive anomalies
  - abnormalities of accommodation, monocular or binocular vision skills, oculomotor and sensory/perceptual dysfunctions
  - ocular disease and trauma
  - prior ocular surgery and/or laser intervention
  - systemic disease
  - environmental or occupational conditions
- the ability to order and interpret frequently needed laboratory and diagnostic procedures
- the critical-thinking skills needed to assess the patient's visual and physical status and to interpret and process the data to formulate and execute effective management plans
- the ability to prescribe or use ophthalmic materials, contact lenses, vision therapy, low vision devices, pharmaceuticals and certain surgical procedures to treat and manage vision disorders and disease
- an understanding of nutritional influences on ocular physiology and systemic health and disease
- the ability to understand, evaluate and apply the use of contemporary imaging technologies in the provision of eye and vision care
- the ability to recognize and initiate the coordination of patient care requiring advanced medical, systemic, inter-professional or specialty care

- the ability to recognize life-threatening conditions and to initiate immediate intervention
- effective communication skills, both oral and written, as appropriate for maximizing successful patient care outcomes
- the ability to appropriately use all resources, including the use of ancillary personnel, intra- and inter-professional collaboration, co-management and referral, in ensuring the best quality patient care
- the ability to access evidence-based knowledge (including through the use of information technology) and manage information, and to apply that information in making decisions about patient care and health care delivery
- the ability to embrace the cultural diversity and individual differences that characterize patients, populations and the health care team
- the ability to work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services.