

**College of Optometry  
University of Missouri-St. Louis  
Campus Five Year Review  
Self Study Report  
2002-2007**

**September, 2007**

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## **I. Overview**

### **History and Institutional Uniqueness**

As the region's only College of Optometry located within a metropolitan public research university, we consider it our responsibility to educate and serve those who live and work within our community. The College of Optometry was established by legislative action in June, 1980 and was opened in August of that same year. It is one of only seventeen schools and colleges of optometry within the United States and Puerto Rico. The College has been providing comprehensive eye care to metropolitan St. Louis residents for 25 years, first on the south campus of the University of Missouri St. Louis and on Lindell Boulevard in the Central West End of the city of St. Louis. In the early 1990's, the College was invited to extend our services to the East Saint Louis community. We responded to that invitation by opening an Eye Care Center in collaboration with Southern Illinois University-Edwardsville. In 2000, the College of Optometry began serving patients in St. Charles County. Now, our students and faculty provide eye and vision care within the four counties that comprise the St. Louis, Missouri-Illinois Metropolitan Statistical Area. The care provided within each of our University-affiliated facilities, collectively known as the *Center for Eye Care*, helps to serve an unmet need within that geographic area. The Mission, Values and Goals of the *Center For Eye Care* may be found in the appendices.

The College of Optometry also works cooperatively with other health professionals through community health care agencies and entities, including those serving recent immigrant, physical and emotionally challenged populations, as we strive to meet the eye and vision care needs of the St. Louis community. These locations provide an excellent educational opportunity for the optometric interns and residents who assist faculty to provide eye care. Also, these facilities provide high quality primary eye and vision care in an urban area where patients have few choices to pursue their eye care needs. The College of Optometry provides over 12,000 patient contacts each year. Beyond that, hundreds of vision screenings are furnished at no cost to the children. All clinics of the College of Optometry accept Medicare, Medicaid and other third party payment, Lions Clubs' vouchers, Red Cross vouchers, and privately funded indigent eye care.

Recently The Mobile Examination Center (MEC) was added to our program, providing comprehensive eye and vision care on-site at schools, residential facilities, and other identified areas of need. This project is helping to improve vision for children and mature adults. A child who sees clearly is better prepared to learn.

### **Post-Professional and Graduate Education**

In addition to the Doctor of Optometry (O.D.) degree we offer post-professional residency training through four affiliated and two on-site programs. The affiliated sites are located at the Veterans' Affairs Medical Centers (VAMC) in St. Louis, and Kansas City, The Harry S. Truman Memorial VAMC in Columbia, Missouri and Children's Mercy Hospital and Clinics in Kansas City, which is our newest affiliated site just established in 2007.

The St. Louis VAMC residency in Primary Care and Geriatrics was established in 1986 and has one position open each year. They have had a total of thirteen residents complete the program. The Kansas City VAMC residency in Ocular Disease and Low Vision was established in 1975 and affiliated with U.M.-St. Louis in 1986. They have had a total of fifty four residents complete the program since being affiliated with the college. They currently have three positions open each year. The Harry S. Truman VAMC residency in Primary Care and Ocular Disease has two positions. This residency began in 2002 and has had a total of seven residents complete the program. All three of these residencies are accredited by the Accreditation Council of Optometric Education (ACOE).

The Children's Mercy Hospital and Clinics Pediatric Residency will have its first resident enter in the summer of 2007. There is one available position. The accreditation site visit is planned for spring of 2008.

The on-site residency in Cornea and Contact Lens was started in 1985. Nineteen (19) residents have successfully completed the program. The Pediatrics/Binocular Vision residency was started in 2001. Five have successfully completed the program. Each of the on-site residencies has one position and is accredited by the Accreditation Council on Optometric Education (ACOE). From 1993-1998, the college had an in-house residency in Geriatrics and Family Practice. There were a total of six residents who successfully completed this program. A lack of faculty sufficient to sustain the residency resulted in discontinuance of the program.

The graduate program offering the M.S. and Ph.D. in Physiological Optics was established in 1990. Since that time eight M.S. and eight Ph.D. degrees have been awarded. The graduate program is a critical component for our success as we seek to maintain and recruit highly qualified faculty to participate in the professional degree program. Furthermore, the program complements our research activities and contributes to the community by providing the next generation of vision scientists.

## **Our Vision Mission and Values**

Our commitment to the art and science of health care delivery serves as the beacon to illuminate the course for our future. Eye care providers for the 21st Century must have an understanding of the diverse basic science foundations in order to provide effective and compassionate eye and vision care. Thus, we must maintain a faculty with expertise in diverse disciplines including but not limited to the areas of physical, biomedical, optical and clinical sciences. Finally, we recognize the need to maintain a faculty which, through research and scholarship, contributes to the existing fund of knowledge in an increasingly complex health care education and delivery system.

### **Our Vision**

Advancing the Science and Practice of Optometry

### **Our Mission**

The mission of the College of Optometry is to promote and provide improved eye and health care for people throughout the country by preparing the next generation of optometrists and

vision researchers. To accomplish our mission the faculty, staff and students pursue excellence within our professional, graduate, residency and patient care programs.

### **Our Values**

Optometrists, as essential primary eye care providers within an effective health care delivery system, frequently serve as leaders within the community. It is our commitment to demonstrate and instill an appreciation for the following values as we prepare our graduates to fulfill that role with distinction.

*Growth*--- We are committed to creating evidence based quality educational experiences and engendering a passion for lifelong learning within our students, staff, faculty, and alumni. Individual and collective discipline and perseverance are required for growth. Growth is an essential component of our commitment to make a positive impact upon the community that we serve.

*Responsibility*--- We are committed to the pursuit of excellence, charity and compassion toward others, and to improved quality of life for those who live and work within our community. The fulfillment of that obligation is enabled by a dedication to personal and academic integrity.

*Discovery*--- We are committed to the development and utilization of innovative approaches to maximize learning and improve patient care through research, scholarship and teaching. The pursuit and dissemination of new knowledge fulfills our responsibility to enhance the delivery of eye care and the quality of life for our fellow citizens.

*Community*--- We are committed to supportive and productive relationships within our college, campus, professional and surrounding communities. We have an appreciation for the dignity of others and respect for the diversity that exists within our community. Teamwork and collaboration are essential as we strive to enrich the lives of our citizens.

### **Community Engagement**

The mission of the College of Optometry at the University of Missouri-St. Louis is focused upon meeting the eye and vision care needs of a diverse metropolitan community; education of this diverse population; and improvement of the lives for those who live and work within Missouri's largest metropolitan area. We educate a diverse qualified group of students to meet the challenges of vision and health care delivery to citizens within the region. We discover new ways to diagnose and manage eye and vision abnormalities. We deliver excellent eye and vision care in a compassionate manner.

### **Summary**

The College of Optometry is an institution of opportunity; removing the barriers for families to provide clear vision for their children and loved ones; providing the opportunity for Missouri's citizens to receive a high quality public professional education; seeking to increase the number of under-represented minorities who pursue an optometric education; creating the passion for talented faculties to pursue teaching and research excellence.

A vibrant public university is essential for the economic growth of our community. The educational and research missions of the University of Missouri–St. Louis and the College of Optometry advance the economy and culture of the region. The faculty, staff, students and alumni are committed to expanding and enriching this role and enhancing our status to be among the leading public research programs in optometry and vision science.

## **II. Program Accomplishments**

### **Scholarship**

#### **How the expertise, size, diversity, and scholarship (including research and creativity) of the faculty is consistent with and supports the unit's goals for each program;**

The faculty in the College of Optometry provides expertise in a variety of clinical and basic science disciplines. Clinical and research disciplines represented by the faculty include: the O.D., Ph.D., D.V.M., M.S., MPH, and M.S.Ed degrees. Many members of the faculty have completed more than one degree. The majority have had postgraduate training such as a postdoctoral fellowship, residency, or an equivalent of private practice experience. This diverse background gives our faculty a solid foundation for fulfilling our mission to promote and provide improved eye and health care for people throughout the country by preparing the next generation of optometrists and vision researchers. Our faculty lead by example in exemplary patient care, development of new clinical and basic science knowledge, and community service.

#### **How faculty successes in scholarly, creative, and service activities are assessed and evaluated (annually, pre-tenure review, promotion and tenure, post-tenure review);**

Scholarly pursuits and creative teaching and service activities are evaluated thorough annual reviews of faculty performance. The foundation of those reviews is the Faculty Accomplishments System (FAS) which is the self reported data base of activities supported by the UM-System. Each member of the faculty is assessed in the areas of research, teaching, service and patient care consistent with the expectations set forth by their respective faculty title and role in the college. The review process includes goal setting for the coming year along with a review of the most significant accomplishments from the previous year.

The college tenure and promotion committee has published guidelines <http://www.umsl.edu/divisions/optometry/faculty/tenure.html> for tenure and tenure track faculty. Review and revision of the guidelines is a priority for the 2007-08 academic year.

Briefly, for pre-tenure review an ad personam committee (APC) is assigned (two chosen by the promotion and tenure committee, one by the candidate). The APC reviews and makes recommendations to the candidate in the areas of research, teaching, and service. Reviews are made by the APC on a yearly basis. The candidate has a more thorough review after the third and fourth years. After the fifth year the candidate submits a factual record where an in depth review including letters from external reviewers, students, and other outside reviews are solicited. Recommendations are made to the Dean and then to the campus tenure and promotion committee. Post tenure review is currently incorporated into faculty annual reviews

administered by the Dean. The current ATP committee is rewriting the post tenure review guidelines.

**How the unit fosters scholarship among the faculty (incentives and support) and assesses the effectiveness of those efforts;**

The effort to sustain and expand research in the college is multifaceted. First, departmental funds are available to faculty for pilot projects that have the potential to generate external funding an initiative identified as a strategic priority for 2005-08. The funds are distributed under the leadership of the Director of Research and Graduate Studies, a part time administrative position. Also, members of the tenure track faculty are afforded a reduced teaching load in order to pursue research. Furthermore, each member of the faculty also has an opportunity to buy out a portion of their instructional responsibilities through external funds.

Beginning in 2007 the research endowment, established in 2005 through a gift from the Ophthalmic Education Institute (OEI) will, for the first time, generate a full year of income distribution from the account. The additional funding will be available for research projects that have the potential for external funding. This coming year the fund will be used to support an additional graduate student for a junior faculty member.

There is also an opportunity for faculty to have students work in their laboratory during the summer under our summer fellowship program. This program is reviewed by a committee of three faculty members with expected goals and outcomes clearly stated.

The Director of Research and Graduate Studies seeks to match the research interests of our faculty with those of campus colleagues from other disciplines. Through those efforts, potential multidisciplinary collaborative opportunities have been identified on campus including collaborations with the Health Literacy Project, the Center for Nanotechnology, and with the Behavioral Neuroscience program.

Non-grant funds (estimated CY 2006) allocated for research include the following:

Faculty Salaries	\$ 197,881
Graduate Research Assistant Stipends	\$ 44,000
Technical Support	\$ 9,000
Miscellaneous Costs (travel, research participant fees, books, desktop computers)	\$ 5,176
<b>Total</b>	<b>\$ 256,057</b>

See appendices for:

- Faculty scholarly activities for the recent five-year period;
- A five-year record of securing grants and contracts, and gifts; and
- A record of Masters and Doctoral degrees awarded.

## Research/Technology Transfer

### Assess the quantity, quality, and/or focus of research, and describe your plans to sustain quality or improve gaps?

Scholarship and research contributions by our faculty compare favorably with those from similar programs where faculty has a significant instructional load. Research and scholarship in the College of Optometry is directed primarily toward clinical or applied areas. The results of faculty completed studies are most often presented in discipline specific peer review journals. The work of our faculty is reviewed favorably for presentations during major regional, international and national optometry, ophthalmology and vision science meetings.

Expansion of funded research is an area for development in the college. The most significant intervention intended to expand our research activities is the addition of tenure track faculty. We seek to fill two open tenure track faculty positions which once filled will help to increase the capacity for research.

### What were the most significant student accomplishments (e.g., publications that include students, presentations by students, prizes or awards) this year?

Faculty and students have received recognition for research and scholarship during 2006-07.

**Derek Wiles**, UMSL junior and entering optometry student (Honors 3+4 program), presented a poster at the Undergraduate Research Symposium, April 27, 2007, entitled "Dichoptic Study of Second-Order Lateral Masking in Normal and Amblyopic Vision"  
**Amanda Bahr**, 2007 Carl Zeiss Vision Fellowship, for her paper "So You're Going to be a Surgeon Right?"

**Abigail L. Barnes**, the 2007 Alcon Award of Clinical Excellence, "Glaucoma Management and Patient Education"

**Katie J. Hahn**, 2007 Essilor of America "The Future's so Bright, I've got to Wear Varilux"

**Mark Kahrhoff** (Class of 2006) -- Was recognized among the Student Entrepreneurs during the 2006 UM-System Transfer Technology Showcase for his work in using holography to measure optical power and quality of the crystalline lens. The technique may have applications for contact lens design and refractive surgery.

Other publications involving students (student in **Bold**)

**Foutch B.** and Peck C. K. Effects of gender and age on relative luminous efficiency as measured by heterochromatic flicker photometry. *Optometry and Vision Science, Supplement*, 2006.

**Foutch BK.** and Fletcher T. The Effect of gender and eye dominance on reaction times to color stimuli. *Optometry and Vision Science, Supplement*, 2006.

**Voyles S.** Henry V. DeKinder J Bennett E and Henderson B. Determining the most likely rotational direction of soft toric contact lenses. *Optometry and Vision Science, Supplement*, 2006.



Bassi C, **Sobieralski B**, Boland K, Brunig B, Borello D, Murray I. Rapid measurement of macular pigment in the clinic: Evaluation of the Quantifeye. *Optometry and Vision Science, Supplement*, 2006.

McAlister WH, Wingert TA Weaver JL, **Hanson HD**, and Amos JF. Use of clinical practice guidelines by executive directors of optometric associations. *Optometry*, 2006;77(12):622-8.

### **What are the most significant accomplishments in research?**

Technology Transfer – The following patent applications were advanced by the University on behalf of the inventors Carl Bassi Michael Howe and Wayne Garver

- i. Light Sensitivity Meter,
- ii. The Three Dot Test (TDT): A Device to Quantitatively Measure Visual Suppression and
- iii. An Automatic Cap Arrangement Scoring Device for color vision

Carl Bassi was also the campus nominee for the UM System Faculty Entrepreneur of the Year award for 2007.

In the midst of significant instructional loads that are among the highest in the UM-System, faculty in the college continue to contribute to the fund of knowledge in optometry and vision science through peer reviewed publications, invited works and texts.

### **How has the faculty incorporated research into their teaching?**

The practice of optometry is evidence-based. Therefore, the curriculum and course content must be dynamic in order to incorporate recent research findings and to remain relevant in a changing health care environment. Examples of course and curriculum elements that address research include discussions of recent peer reviewed publications and active research projects in the college including the influence that those projects will/may have on patient care.

The curriculum also includes writing projects that direct students to incorporate the review and application of multiple source documents and studies into the assignments. The results from rigorous benchmark studies (i.e. those funded by the National Institutes of Health (NIH) and the National Eye Institute (NEI)) guide and are incorporated into the relevant course content. Furthermore, the AOA Clinical Practice Guidelines which are grounded by the application of best evidence based approaches to eye and vision care, are the criteria applied to assess the quality of care provided within our patient care centers.

Representative examples of research that has been incorporated into teaching include: Current papers and personal research incorporated into lectures of Opt 6400 (Sensory Processes and Perception) and Opt 8250 (Monocular Sensory Processes) and updates to four laboratory exercises for Opt 8250; major studies related to the distribution and determinants of disease and other human maladies, particularly those related to conditions of the eye, in the Epidemiology class and; in the Public Health course health policy research that impacts the practice of optometry has been incorporated.

## **Instruction**

**Provide a description of the practices for assessing, evaluating, and improving teaching, including the practices used to orient and support faculty (full-time and part-time), teaching assistants, and undergraduate tutors.**

Newly appointed faculty in the college participate in the campus orientation organized by the Center for Teaching and Learning. Additional college-specific information is presented during meetings with the Dean. Student assessment of teaching is completed through an electronic-based instrument for each course in the curriculum. The instrument was developed in cooperation with the faculty and student leaders and includes an assessment of the course, the instructor and a self assessment of the student. The assessment program also includes student completed end-of-year and end-of-program evaluations. (see appendices)

**How did faculty use program or course-level assessment data or teaching evaluation (including midterm) data and NSSE to change their courses?**

Instructors receive the results of student completed evaluations for each of their courses. Results of student completed end of year and end-of-program evaluations are maintained on mygateway. Increasingly many members of the faculty are utilizing e-instruction for more immediate student feedback and assessment of student performance. Representative examples of shifts in course content include:

- Geriatrics-- the types of in-class activities have been changed in response to student feedback.
- Ocular Assessment – the presentation of materials is being adjusted partly as a result of student feedback.
- The offerings for externship sites and externship faculty has been adjusted
- More opportunities to practice optometry off-campus have been incorporated
- More patient experiences at community health centers have been added
- Externship students assignments at Center for Eye Care sites have shifted in order to offer more patient experiences for underclass students
- Some members of the faculty have adjusted their presentation style during lectures
- Changes for Optometry 8250 included increased learner-centered classroom activities, more varied assessment methods, and changes in course content and laboratory exercises.
- Some address weak performance areas on midterms in the post midterm review and include new questions on that subject area on the next test, to insure the review was effective.

**What evidence do you have that course requirements are intellectually rigorous (appropriate to the students' level)?**

Indirect measures are often utilized which can be good indicators for the evaluation of programs in which students proceed through a prescribed lock-step curriculum. Specifically, students

perform well on the nationally administered examination used to qualify graduates for licensure in all 50 states. The ultimate pass rate (percent who passed all three parts of the NBEO examination prior to graduation) for the class of 2006 (the most recent graduating class for which data is available) was 94%, slightly exceeding the national average.

Additional evidence is found in student completed course and end of year/program evaluations. (see appendices) Also, peer review of courses within the curriculum is increasingly an important component of the effort to validate the curricular content. These course reviews are completed by a colleague who is knowledgeable but not directly involved with the instruction of the course under review.

Beyond that, degree completion is not guaranteed upon enrollment. Occasionally a student will, as a result of poor academic performance, be dismissed from the program. For the 2006-07 academic year 12 students ( 7% of the 174 enrolled in the professional degree program) were placed on academic probation, as a result of performance, for at least one semester. One student was dismissed for academic reasons.

### **Do they require student research and/or creative expression?**

Students enrolled in the professional degree program are encouraged to explore research as a value added co-curricular experience. Each candidate for the M.S. and Ph. D. degree completes a thesis or dissertation respectively.

### **Describe the quality of dissertation/thesis supervision? Please include a discussion of how you assessed the quality of supervision.**

The Director of Research and Graduate Studies monitors progress of graduate students through the program. We had a special case this year where the dissertation supervisor left campus at the point when the student's project and report were near completion. The graduate faculty (in consultation with the Dean of College and the Dean of the Graduate School) assigned co-directors for the dissertation. The student completed the work and was awarded a degree in May.

Adjustments were also made to the committee of another student as a result of the frequent review of progress by the program director. When it was found that the advisor's knowledge in a particular area relevant to the projects was limited, a content expert was added in order to maintain the appropriate rigor and quality of the work.

### **What changes did you make to the program, courses, assessments, and/or program descriptions and outcome statements as a result of your findings this year?**

#### **Overall**

The strategic plan was reviewed and revised by the College Budget and Planning Committee in March, 2007. The recommendations were accepted by the faculty in April, 2007. The strategic plan is reviewed and modified as appropriate annually. Recommendations for 5-year strategic priorities were presented to the faculty during the first faculty meeting of the fall 2007 semester. The College strategic plan including five year strategic priorities may be found in the appendices.

Scenario Based Discovery was added to the 1st year curriculum. The course is designed to provide students with opportunities to assimilate and recognize the relationships between diverse topics emphasized within the optometry curriculum.

In addition, the Ocular Disease and Ocular Pharmacology courses were restructured to accommodate a modular, systems based approach introducing students to disease, organ systems affected, pharmacology and the medical management of ocular and systemic disease. The new sequence is comprised of three courses. The specific adjustments may be found on pages 89 - 93 of the College Bulletin

<http://www.umsl.edu/divisions/optometry/pdfs/2006OptometryBulletin.pdf>

A service learning exercise was added to the 4th year externships. Externs are asked to reflect upon their experiences as they relate to one of several self and/or patient focused questions. Service-learning offers a unique opportunity for students to become involved with their communities in a tangible way by integrating service projects with didactic and clinical learning.

The admissions committee has adopted the following policy regarding non-graded (Pass/Fail or Satisfactory/Unsatisfactory) pre-requisite courses. Incoming students with an OAT reading comprehension score of 320 and an overall GPA of 3.2 may submit up to 12 non-graded credit hours (6 English credits and 6 Liberal Arts credits excluding Mathematics, Science and Psychology courses) for admissions.

The entry level standards document was expanded to include three new bulleted items pertaining to the impact of genes, best practices and information technology. A modification to an existing bulleted item clarifies the inclusion of injectable agents within the standards. The revised standards may be found in the appendices.

### **Teaching and Learning**

A relevant and rigorous educational experience is continuously reviewed by the faculty and administration. Student performance on all parts of the NBEO examination remains high. The ultimate pass rate for the class of 2006 was at a 12-year high for UMSL graduates and exceeded the national average.

Beginning with the class of 2009 the faculty has directed their attention to science and reading comprehension scores for decisions regarding admissions and scholarship awards. The move was the result of an analysis of Predictor variables for the graduates in 2002, 2003, 2004, 2005 and 2006 which suggested that the pre-admission OAT scores for science and reading comprehension are more indicative of success on Part I of the NBEO examination than the overall OAT score which had been emphasized previously.

The first time Part I NBEO Pass rate for UMSL students remained high in 2006 the most recent year that benchmark data is available. The mean scaled score for UMSL students exceeded the national average for the third year in a row. Pass rates for Parts II and III continue to meet or exceed the national mean pass rate. We believe that the continued high achievement on the NBEO examination validate the merits of various initiatives to prepare students for practice,

including the recruitment of the highest qualified applicants through merit and need based scholarship awards, provision of the summer NBEO review course at the end of the second professional year and ongoing communication of educational and curricular outcomes, and high expectation to students.

Student assessment of teaching and learning suggests that overall there is high satisfaction with the curriculum. One area that consistently receives lower marks is practice management especially as it relates to the business aspects of optometric practice. The curricular model entitled FastTrac developed by the Kauffmann Foundation and coordinated by the Missouri Small Business Development Center was instituted in the spring of 2005 and funding for the curriculum was continued into 2006 and 2007. Many graduates who pursue independent practice upon graduation have attributed their decision to the influence of this course. Thus, we continue to seek funding to offer FastTrac.

**What were your most significant community engagement/service learning activities this year?**

- The 2007 Community Champion Award for the Health Care Organization category was received from the Institute for family Medicine, St Louis, Missouri.
- LaClinica, a free medical health center primarily serving the Hispanic/Latino immigrant community of St. Louis, served by faculty and students of the College of Optometry for eye and vision care has been further expanded from bi-weekly to weekly sessions.
- The College of Optometry continues to collaborate with the St. Louis Society for the Blind and Visually Impaired (SLSBVI) to provide low vision and rehabilitation services. The importance of this relationship was recognized in the fall of 2006 when the college was presented with the prestigious Community Service Award from the society.
- Expanded partnerships, through the addition of 2 federally funded health centers, have been strengthened further and expanded, resulting in more opportunities for patient care encounters each week. Dispensary services have been added at one center.
- Utilization of the Mobile Eye Center (MEC) has been expanded in a partnership with the Area-wide Agency on Aging and area Lions Clubs. College of Optometry faculty and students provide eye and vision care on-site at several senior centers throughout the St. Louis area. This program has expanded to bi-weekly visits. Students return to each center approximately two weeks later to dispense eyewear, answer questions and provide informational materials.
- Faculty and students of the College of Optometry have begun to provide services at the CHIPS (Community Health-In-Partnership Services) medical clinic in north St. Louis. This multi-disciplinary clinic provides services at little or no fee to the medically indigent.
- A service learning exercise was added to the 4th year externships. Externs are asked to reflect upon their experiences as they relate to one of several self and/or patient focused questions. Service-learning offers a unique opportunity for students to become involved with their communities in a tangible way by integrating service projects with didactic and clinical learning. A growing body of research recognizes service-learning as an effective strategy to help students by:
  - Promoting learning through active participation in service experiences;
  - Providing structured time for students to reflect by thinking, discussing and writing about their service experience;
  - Providing an opportunity for students to use skills and knowledge in real-life situations;

- Fostering a sense of caring for others; and,
- Providing engaging and productive opportunities for students to work with others in their community.

### **Student Recruitment**

The quality, as demonstrated by entering GPA and OAT scores, of matriculating students remains high. However, many who decline an offer of admission continue to be among the highest qualified applicants. Non-resident applicants are more likely to decline an offer of admission, stating cost as the primary driver of that decision. Our application and admission processes and admissions staff are consistently reviewed favorably by applicants and incoming students.

We continue to assess the move to a more credential based scholarship awards process which was initiated for the class entering in the fall of 2005. One expected outcome of that shift is to allocate the available scholarship dollars in the most efficient way.

We continue to have a broad representation of states and geographic areas among matriculating students which is attributed to our recruitment program. We will continue to direct resources toward the recruitment of a diverse and highly qualified student body.

The most common reason for declining an offer of admission continues to be a “low perceived value” relative to our peer institutions. That lack of perceived value is a substantial deterrent from enrolling at UM-St. Louis. Therefore we continue to seek program efficiencies and limits to increased educational costs. We also recognize that there are limits to what we can do to hold back increases to the cost of a professional education. In addition to maintaining program efficiencies we must also deliver a curriculum that is rigorous and relevant. In order to be successful in our pursuit of the highest qualified applicants, it is critical that we also offer a facility appropriate for health professions education in the 21<sup>st</sup> Century. Applicants highly value and increasingly expect to pursue their professional education within updated and well maintained facilities.

In 2006, recognizing the challenges that we face within our current facility, the College was placed in a position of high priority for capital improvements by the UM-System Board of Curators. Building upon the 2005 programmatic needs assessment, a conceptual rendering of a new facility was completed in the spring of 2007. The proposed facility includes approximately 60,000 square feet of assignable space and comes with an estimated cost of \$31 million. The program Master Plan may be found in the appendices.

### **Assessment of Optometry Student Progress**

The professional program for optometry students is four years post-baccalaureate. First year students are enrolled primarily in didactic classes and laboratories. They are evaluated through grading of projects and examinations. Second year students are evaluated likewise; however, they are also evaluated by proficiencies to determine their readiness to examine patients. At the conclusion of the second year, the students have two major proficiency examinations. One is specific to skills required for ocular health assessment and the other proficiency evaluates overall

ability to perform clinical tests, collect data, communicate with a patient, analyze a case and develop a treatment plan. This process leads to the awarding of initial clinic privileges.

In the summer semester immediately following the second year, students examine patients in which they are evaluated by online evaluation. In the fall and winter semesters, third year students continue the didactic and clinical assessment, with the addition of three clinical proficiency examinations (binocular vision, contact lenses, and low vision) that they are required to pass at the end of the fall semester. Successful completion of these three proficiencies allows students to continue their clinical privileges in specialty clinics.

Fourth year students are enrolled in the externship program. Each student must complete six different rotations each approximately 8 weeks in length. At each rotation they are evaluated by their clinical preceptor(s). They are required to submit patient logs, service learning projects, case reports and a rotation evaluation. The externship counselor uses the preceptor evaluation and each of these items submitted to issue a grade for the rotation. Successful completion of all course work, proficiencies and rotations allows students to meet graduation requirements.

**The extent to which and how effectively the unit uses information technology (including MyGateway) instructionally, administratively, and in research; indicate which courses are offered online and provide evidence to assess the effectiveness of online instruction;**

Faculty members in the College of Optometry have taken advantage of technological services in order to enhance the didactic and clinical education curriculum. Technology has been utilized to advance and support our global professional curricular goals and objectives, to fulfill the strategic plan, and to ensure compliance with our core competencies and principles for entry level practice.

### **Blackboard**

Beginning with those entering in the fall of 2006 a student selected for the professional degree program is immediately enrolled into an online (MyGateway) organization. The organization site is used to foster community building among entering students and to improve retention of admitted students until the fall when classes begin.

We have encouraged and achieved incremental college-wide use of the classroom management system, Blackboard. At this point, we enjoy 100% participation by faculty in Blackboard for syllabi and course information posting, with nearly complete participation using Blackboard as an electronic repository for lecture notes. Students also manage their own group and class organizations through Blackboard.

Many of our curricular tracks have explored and utilized more advanced features of Blackboard, including discussion board sessions, blog/Wiki postings and extensive use of online assessments. Last academic year, 5 optometry faculty members received recognition as power Blackboard users.

Blackboard use has also extended into our clinical training program. A new organization for students enrolled in professional year four (PY-4) was created in order to present simulated case presentations during externship rotations. Case presentations are analyzed by each extern and submitted online for evaluation and further discussion. Student responses to these standardized cases will become an important part of our clinical outcomes assessment.

### **Electronic Medical Records**

Since January, 2004, our clinical operations have been conducted through EyeCare Advantage (Compulink Inc.) patient management software. As a result, the four college operated centers are nearly paperless. This offers our students familiarity with the latest in effective management of electronic medical records and personal health information privacy enhancement.

### **Online assessments**

The College of Optometry supports a series of online forms and assessment tools in order to tabulate clinician patient log entries and to facilitate faculty completed evaluations of individual patient encounters. The database allows faculty to identify student clinicians who may not fulfill specific clinical objectives, before such a deficiency endangers their successful completion of the optometry program. In addition, all clinical privileging proficiencies are tabulated and stored online.

### **Service**

**How the faculty regard their role as citizens in the department, the campus community, the metropolitan area, and professional organizations. Explain how faculty scholarship informs these activities;**

Faculty take their role as good citizens seriously by participating in activities at the department and campus level as well as working through College and professional organizations to improve the quality of life in the service area.

Within the department, members of the faculty attend meetings to improve the educational mission of the College and to integrate the latest developments in the profession into material presented to students within their class and within the curriculum as a whole. They serve as advisors to student organizations with a wide range of service interests, allowing students to benefit from their expertise outside of the classroom. They promote student involvement in advancing the art of patient care and becoming lifelong learners by encouraging participation in grand rounds presentations from which another perspective on patient care is gained.

Faculty members serve the campus community through a similar involvement in campus-wide committee work, extending their viewpoint and expertise into the overall mission of the campus. Their professional skills serve the campus community by providing comprehensive eye care services.



They extend those services to the community at large by providing access to quality vision care for patients in the St. Louis region, including high-need, at-risk, under-served and indigent populations through college operated clinics and community health centers. Mobile vision services are also provided to service those for whom transportation may be an issue.

Members of the faculty are actively involved as participants and leaders in professional societies on a local, statewide, national and international level. They present the results of research, give continuing education lectures, and serve as volunteers to facilitate the mission of these organizations. In this capacity, they serve as role models for students demonstrating the professional commitment members must bear to improve the science and standard of care for current and future patients.

### **Academic Advisement**

The professional degree curriculum incorporates few elective courses. Therefore academic advisement is essentially limited to prospective students and those enrolled in the externship program during professional year four. Externships allow students to reflect on their future practice plans by their selection of particular forms of practice, their locations and demands.

Near the end of the second professional year, students are given an orientation to the externship program which includes distribution of the Externship Manual and a description of the selection and placement process for externship sites. The students are encouraged to review the manual so that they will be prepared for the planning process which takes place in the fall of the third year.

At the beginning of the third year, students meet individually with the Director of Externships for advisement sessions. During the advisement sessions students can either request guidance and/or explain their rationale for selecting each of their externship sites. During this time, discussions focus on future goals and identification of externship sites appropriate to achieve that goal. Although there are limitations imposed by graduation requirements, each student is also given the opportunity for elective selection of externship sites. Additional advisement sessions are conducted as necessary.

### **What were the major contributions your unit made to faculty governance and other campus activities?**

Despite the relatively small number of full-time faculty and our challenge to provide membership on the many diverse committees and task forces, our faculty participate in a variety of college, campus and system committees. Five members of the faculty have participated in the Presidents Academic Leadership Development Program which began in 2000. Two members of the faculty have completed and one is currently participating in the UM-System New Faculty Teaching Scholars (NFTS) program. The Chair of the campus Institutional Review Board for the last several years is a member of the college faculty. The 2005-06 Secretary of the University Senate was a member of the college faculty.

### **How did members of your unit promote the profession?**

Faculty in the college participate as members of and in leadership positions for local, regional and national professional organizations. Many campus and community initiatives are supported by our faculty including the Stars and Bridge Programs. Our academic programs such as Externships and inter-professional and electronic continuing education also increase awareness for optometry and the college. Also the Mobile Examination Center (MEC) promotes optometry and the campus by illuminating the delivery of outstanding service to the campus and surrounding communities.

Student and patient recruitment activities throughout the region bring our profession to light at schools, colleges and community health fairs. Collaborative research and service with other disciplines and organizations also advances the profession.

### **How did your faculty fulfill the university's land-grant mission with community service?**

The faculty, students and staff serve the community by providing eye and vision care services throughout the St. Louis metropolitan area. Comprehensive eye care is available within four eye centers operated by the college. In addition, cooperative arrangements with a variety of community partners expand the impact of our services well beyond the borders of campus. In FY 2006 the most recent reporting period 5417 patient visits resulted from those partnerships which numbered forty. In that same year \$300,307 of uncompensated care was delivered though services provided by the college faculty, staff and students. Trends for uncompensated care and patients served may be found in the appendices. *Also See Section III. Student Learning*

### **Economic Development**

**Besides workforce development was your unit involved in any economic development activities? If so, please specify technology transfer, consulting/partnerships designed to promote organizations' growth and/or effectiveness, and other similar activities.**

See II. Research and *Technology Transfer*

### **Administration**

**How the administrative structure of the unit and policy-making processes meet the unit's goals.**

In 2001 the faculty developed, adopted and implemented a governance structure (see Appendices), which outlines and facilitates communication and cooperative decision making between the faculty and administration. The process by which it was developed included representatives of the faculty and administration with representation of both the tenure track and non-tenure track faculty. Consistent processes and procedures were developed to encourage collaboration, cooperation, synergy and mutual respect not only among the faculty but also between and among the faculty and administration, students and staff. The annual review process encourages faculty to discuss ways in which their work contributes to various program objectives.

The Strategic Plan includes provisions for its annual review and revision, including a timetable. This includes an annual review of the College's Mission Statement. Each portion of the Strategic Plan is assigned to an administrator and faculty committee who are responsible for reviewing the data and the degree in which the goals and objectives are being met.

Acceptance of the strategic plan indicates a dedication on the part of faculty, administration and staff to fulfill a collective mission in order to ensure that goals are met. The results of regular ongoing reviews of the outcome assessments and an annual overall review of the strategic plan by the entire faculty and representatives of the staff provide the information necessary to evaluate and continually improve the operation of the program.

### **III. Learning Goals and Curriculum**

#### **The mission, goals, and expected learning outcomes of the professional (O.D.) program;**

The learning outcomes (competencies) for the professional degree program are derived from the entry-level practice standards which may be found in the appendices.

#### **CLINICAL COMPETENCIES**

The College of Optometry requires its students to develop competencies in patient care, optometric knowledge, interpersonal and communication skills, professionalism, practice-based learning and improvement and systems-based learning to the level expected of a new practitioner. To this end, the College of Optometry has defined the specific knowledge, skills, and attitudes required, and provides the required educational experiences for their students to demonstrate these competencies.

##### **Patient Care:**

Students must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of eye and vision problems and the promotion of eye health.

*Students are expected to:*

- a. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their caregivers
- b. Gather necessary and accurate information about their patients
- c. Perform competently all procedures considered necessary for care of their patients
- d. Make informed decisions about diagnostic and therapeutic interventions based on clinical test results and patient preferences, current scientific evidence, and clinical judgment
- e. Develop and implement patient management plans
- f. Educate and advise patients and their caregivers
- g. Use information technology to support patient care decisions and patient education
- h. Provide consultations aimed at preventing eye and vision problems
- i. Work cooperatively with other health care and educational professionals to provide patient-focused care

**Optometric Knowledge:**

Students must demonstrate knowledge about established biomedical, clinical, and behavioral sciences, and the application of this knowledge to patient care.

*Students are expected to:*

- a. Demonstrate a systematic and analytical thinking approach to patient care decision making
- b. Know and apply the appropriate basic and clinical sciences for patient care

**Interpersonal and communication skills:**

Students must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their caregivers, and professional colleagues.

*Students are expected to:*

- a. Create and sustain a fundamental relationship with their patients
- b. Use effective listening skills, elicit and provide information using helpful nonverbal, explanatory, questioning, and writing skills
- c. Work effectively with others as a member of a health care team or other professional colleagues

**Professionalism:**

Students must demonstrate a commitment to completing professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

*Students are expected to:*

- a. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and optometry; and a commitment to continuing professional development
- b. Demonstrate a commitment to ethical principles pertaining to the provision of clinical care, confidentiality of protected health information, informed consent, and business practices
- c. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

**Practice-based learning and improvement:**

Students must be able to evaluate and improve their patient care skills, evaluate and integrate technical and clinical knowledge

*Students are expected to:*

- a. Analyze their patient experiences and perform improvement activities using a systematic method
- b. Locate, evaluate, and assimilate evidence from scientific studies related to their patients' eye and vision problems
- c. Obtain and use information about their own sample of patients and the larger population from which their patients are drawn
- d. Apply knowledge of study designs and statistical methods to the evaluation of clinical studies and other information on diagnostic and therapeutic effectiveness
- e. Use information technology to manage information, access on-line medical information; and sustain their own education
- f. Facilitate the learning and understanding of other health care and educational professionals

**Systems-based practice:**

Students must demonstrate an awareness of the larger context and system of health care and the ability to effectively identify resources to provide patient care of the highest level available

*Students are expected to:*

- a. Understand how their patient care and other professional activities affect other professionals, their health care organization, and the larger society, and how the health care system affects their practice of optometry
- b. Know how types of optometric practice and delivery systems differ from one another, including health care costs and the allocation of resources
- c. Practice cost-effective health care and resource allocation that does not compromise the quality of care
- d. Advocate for quality patient care and assist patients in dealing with the health care and educational systems
- e. Know how to interact with other health care providers to evaluate and improve eye and vision care

**How the courses in the program meet the program goals;**

The curriculum is continuously reviewed by the faculty and as a result the appropriate revisions are incorporated. One aspect of that process includes a peer review of each course. Each member of the full-time faculty participates. The criteria utilized for peer review of the curriculum may be found in the appendices.

**How the program assesses the prior knowledge of incoming students;**

This occurs primarily through two factors: the student's performance on the Optometry Admission Test (OAT) and their cumulative Grade Point Average (GPA). As a result of analysis of data of students who have matriculated through this program, it has been determined that specific components of the OAT – notably General Chemistry and Reading Comprehension – factored higher in student success and, therefore, the minimum scores required for admission have been higher in these categories. Likewise, the Science OAT average and the prerequisite average science and math GPA are also carefully reviewed in the admissions process.

**How students are recruited, engaged, and retained in the program;**

Our recruitment plan includes heaviest recruitment from our "region": those states which are contiguous with Missouri. We specifically recruit from our identified feeder institutions in these states. This is often in the form of institution pre-optometry club or pre-health club meetings and health fairs. We accommodate requests to visit other programs, but generally handle these through webinars, rather than on-site visits.

We engage students during recruitment through monthly emails. Once offered a seat in the upcoming class, an on-line community is formed for students to begin to engage one-another. The community also provides an opportunity for the Manager of Student and Special Services to prepare the students for the process of matriculation in the fall.

This on-line community continues while in the program, in addition to meeting with the Director of Student Services each semester to facilitate an appropriate integration into the professional

degree program. Additionally, students identified being “at risk” academically prior to admission meet with Manager of Student and Special Services to make use of a variety of on-campus academic services (how to study, how to take tests, test anxiety, etc.) often intended to address circumstances unique to students enrolled in the College of Optometry.

The Director of Student Services meets with every first year student individually during the middle of the first semester to discuss their progress. The Director of Student Services also communicates with all faculty at midterm every semester to request the names of any students who are in academic difficulty and to discuss whether or not the student(s) would benefit from a tutor. The Director will meet with these students and a tutor will be provided by the College if agreed upon by the student. Students who are experiencing difficulty with test performance or other obstacles to learning are also encouraged to contact the campus Center for Student Success. Students who do have difficulty may be placed on a modified program (extending the program from four years to 4.5 or 5 years). Additional tutors can be arranged (upper class students who have been qualified by prior grades in the coursework) and provided by the College.

**How instructional activities (research and creative projects, service-learning, civic and community-based activities, practica and internships, study abroad) support student learning outcomes, encourage student engagement, and meet the goals of the program;**

The College of Optometry at UM- St. Louis serves the community in many ways through its local clinical rotation sites. Our student interns and attending optometrists currently provide full-scope eye and vision care to patients through Grace Hill, Family Care Health Center, La Clinica, and CHIPs clinic sites in the city of St. Louis.

The clinic sites listed provide care to a patient base of low-income, at-risk, largely uninsured patients of all ages. For most students, these externships are their first experience working with a patient population at high risk for many common and uncommon medical and ocular disorders due to the relative lack of regular and timely preventative care. Students learn volumes in these environments about: the current state of healthcare provided to urban at-risk populations in this country, the relationships between chronic disease and visual disorders, the higher rate of drug use and STDs and the resulting ocular complications, the necessary communication between primary care healthcare providers and optometrists, and patients’ personal barriers to optimal health. The depth and breadth of clinical experiences raise our student’s clinical skills rapidly due to the level of clinical care provided to patients. Not only are our students providing patients with much-needed visual correction, they are also diagnosing and treating a wide-range of ocular disorders and are working with their medical colleagues in managing systemic health conditions.

Furthermore, our students get a feel for the current “safety net” for uninsured and low-income patients, and recognize that it often lacks sufficient coordination is an incomplete net most of the time. They are exposed to some of the available funding sources to help their patients, and the relationships between public policy and such funding are explored. Most students feel a great sense of empathy for their patients and realize how fortunate they are to have the gift of education and great career opportunities. This sense of empathy serves to reinforce their developing personal philosophy of professional care.

Student experiences in these clinics are further reflected upon in writing, through Service Learning Projects. Unique clinical experiences are often reviewed in a grand rounds environment, so that other students may share in the clinical and personal lessons learned. Our community clinics are a valuable asset to our institution, in large part due to the number of opportunities to learn, and the engagement fostered between the student and their local community and the College of Optometry.

Most of our students realize that, in many ways, community health is a very rewarding way to practice in spite of the many challenges. They realize through their work in this environment that optometry has a large role to play in the day-to-day healthcare of everyone in their community.

**How co-curricular activities in or outside of the unit support student learning and engagement;**

This is accomplished in numerous ways. Beginning with the two day orientation period prior to the beginning of their first year, students are informed of the importance of engaging with their class for activities pertaining to lectures, laboratories, clinics and the national board examinations. They also participate in numerous small group activities at that time to increase their knowledge of their class, which is not a formidable challenge with such a relatively small class size. The introduction of relatively low cost campus housing in Fall, 2007 will allow for a campus community designed to foster engagement and student success. In addition, student retention is expected to increase. Students who are at risk academically can be encouraged to take advantage of the benefits of this community environment. The low cost housing option will decrease the need for students to work to provide funding for off-campus housing, utilities, and transportation.

Students may participate in a variety of profession specific student organizations. Many support and coordinate service activities through out the year. A complete list of the organization may be found at <http://www.umsl.edu/divisions/optometry/organizations/organpag.html>

**How the coursework builds to a synthesizing experience such as a senior project, capstone experience, thesis, or exit requirement; provide evidence of the effectiveness of the experience;**

The professional program culminates into an intensive clinical experience in which students apply the skills and knowledge gained during their first two to three years. The externship program is consistently reviewed positively by our students and alumni as well as colleagues in the broader community who serve as preceptors for a portion of the student clinical experiences. Evaluative results of the externship program and end of program evaluations may be found in the appendices.

**The effectiveness of the advising system for students; explain how the unit's advising responsibilities are integrated into the program;**

Students meet with the Director of Student Services each semester to insure that integration into a professional program is achieved. Students who do have difficulty may be placed on a

modified program (extending the program from four years to 4.5 or 5 years). Additionally tutors are arranged (upper class students who have been qualified by prior grades in the coursework) and provided by the College. Additionally, students identified being “at risk” academically prior to admission meet with Manager of Student and Special Services to make use of on-campus academic services (how to study, how to take tests, test anxiety, etc.) The 4<sup>th</sup> year externship experience is guided by individual advising meetings with the Director of Externships. The experience is individualized according to the student expectations to the extent that those align with the curriculum objectives.

**How student progress is assessed; identify the procedures and timelines used to review and offer feedback to students. How does the program ensure that students’ knowledge develops to meet the program outcomes?**

Student progress is assessed in a variety of ways throughout the 4-year learning experience. Within course assessments include those performed periodically during the semester such as occurs via midterm and end of semester examinations. Student progress in clinic related courses is also assessed more globally by assessing performance within the clinic curricular track. If a student desires a tutor, and the instructor agrees, this service will be provided by the College. This process can also be initiated by the instructor. At the end of each semester, the faculty Student Committee meets to discuss students who are in academic difficulty and make recommendations which can include tutoring, having the student develop a study plan/schedule, referral to the Center for Student Success and individual meetings with the Director of Student Services. If after the initial steps of placing students on academic probation students continue to fall short of the academic requirements, other options that may be implemented include a modified program and, on occasion, dismissal. All students are required to pass a clinical proficiency at the completion of their second year in order to gain clinic privileges. Clinical training is typically initiated during the summer immediately following their second year. The credentialing and re-credentialing process for 3<sup>rd</sup> and 4<sup>th</sup> year students requires that students demonstrate sufficient progress in their clinical skills. The criteria for faculty completed evaluation of clinic performance may be found in the appendices.

**How the unit relies upon reviews of students’ products (capstone experiences, theses, exit tests, etc.), course evaluations, and employer surveys to make programmatic changes.**

Examples of student and alumni completed assessments including course evaluations, end of year, end of program, and the non-matriculating student questionnaire may be found in the appendices.

**IV. Facilities and Resources**

**An analysis of the unit’s resources (personnel, facilities, scholarships, assistantships) that support the program;**

Increasingly, many highly qualified prospective students conclude that the cost of education is not balanced by the design and condition of our campus facility. Although located on the campus of a public research university, student fees comprise the major source of operating



funds for the college. Student fees in the College of Optometry at the University of Missouri in St. Louis are the highest of any school or college of optometry -- public or private. With high educational costs and marginally adequate academic, patient care and administrative areas, outstanding applicants frequently select another institution for their optometric education. Therefore, UM-St. Louis is often not the institution of first choice for many highly qualified applicants including those who reside in Missouri. The high costs are simply not balanced by a facility that offers efficient and effective teaching and learning, research and patient care areas.

Unlike Marillac Hall, in which the only recent major renovations are the student center and two basement classrooms, the physical facilities that house neighboring benchmark schools and colleges of optometry (Southern College of Optometry <http://www.sco.edu> , Illinois College of Optometry <http://www.ico.edu> , Northeastern State University College of Optometry <http://arapaho.nsuok.edu/~optometry> and Indiana University School of Optometry <http://www.opt.indiana.edu> ) are significantly newer, or have undergone significant restoration and expansion within the last five years. Furthermore, each was designed specifically for the education and training of doctors of optometry, the delivery of eye and health care, faculty research, and the effective administration and support of the respective institution. The major shortcomings of our existing facility are articulated in detail within the Mackey-Mitchell report completed in the fall of 2005. The current facility is increasingly a substantial impediment for the successful recruitment of well qualified students and faculty necessary for the continuation of a program of excellence.

The current facility is also an impediment to programmatic expansion. Classroom and laboratory space are cramped and limit further enrollment growth. The space used for the delivery of clinical services, being designed for other functions, introduces much inefficiency to the program. Also, the rapid development of new technology for clinical diagnosis further crowds the already limited space available for patients, faculty, students and staff. Furthermore, opportunities for the expansion of clinical services including multi-disciplinary care are hindered for similar reasons.

We are committed to responsible stewardship of our resources. In order to be competitive for applicants and in an effort to minimize the substantial debt of our graduates (now averaging \$113,058) we fund scholarships from the college operating budget. Those scholarships exceeded 30% of the fees collected during fiscal years 2005 and 2006.

We have been successful in our efforts to secure resources separate from tuition and fees, as evidenced by the increases in endowment funds designated for scholarships, indigent patient care and research, during the last 5 years. (See five-year record of securing gifts which may be found in the appendices)

## **V. Comparative Data and Accreditation**

### **A comparison of benchmarks with peer institutions**

Comparator institutions are the 17 members of the Association of Schools and Colleges of Optometry (ASCO). (Inter American University of Puerto Rico, Illinois College of Optometry, Indiana University, Michigan College of Optometry at Ferris State University, New England College of Optometry, NOVA Southeastern College of

Optometry, Northeastern State University College of Optometry, Ohio State University College of Optometry, Pennsylvania College of Optometry, Pacific University College of Optometry, Southern California College of Optometry, Southern College of Optometry, State University of New York College of Optometry, University of Alabama at Birmingham, University of California at Berkeley, University of Houston, University of Missouri at St Louis)

**Admitted Student Profile, fall 2004, 2005 and 2006**

	Number Enrolled			Average Undergraduate GPA			Average Total Science Optometry Admissions Test Score			Academic Average Optometry Admissions Test Score		
	2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
Um-St. Louis	42	44	44	3.39	3.42	3.44	313	320	326	319	318	324
ASCO Mean	82	83	83	3.32	3.37	3.43	320	324	329	321	323	327
ASCO Median	79	79	75	3.30	3.40	3.44	320	322	330	320	321	326

	% Holding Baccalaureate Degrees			Number of States Represented			Ratio Number Accepted to Number Enrolled		
	2004	2005	2006	2004	2005	2006	2004	2005	2006
Um-St. Louis	98%	98%	82%	11	14	12	1.98	1.61	2.04
ASCO Mean	89%	90%	90%	18	18	18	1.64	1.60	1.60
ASCO Median	95%	95%	92%	18	16	17	1.44	1.48	1.55

**Total Enrollment Profile, Academic Years 2005-2006 and 2006-2007**

	2005-2006				2006-2007			
	Male		Female		Male		Female	
	%	(N)	%	(N)	%	(N)	%	(N)
UM-St. Louis	43.3%	(71)	56.7%	(93)	41.4%	(72)	58.6%	(102)
ASCO Total	36.9%	(1984)	63.1%	(3393)	35.8%	(1962)	64.2%	(3526)

**Indicators of Diversity, Academic Years 2005-2006 and 2006-2007**

	2005-2006						2006-2007					
	UM St. Louis			All ASCO			UM St. Louis			All ASCO		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
African American	0.6%	3.0%	3.7%	0.7%	2.8%	3.5%	0.6%	3.4%	4.0%	0.7%	2.5%	3.2%
Hispanic American	0.6%	0.6%	1.2%	1.6%	3.5%	5.1%	0.6%	1.1%	1.7%	1.3%	3.6%	4.9%
Native American or Native Alaskan	0.0%	1.2%	1.2%	0.2%	0.4%	0.5%	0.0%	1.1%	1.1%	0.2%	0.3%	0.5%
Asian American	1.8%	3.0%	4.6%	5.9%	17.4%	23.3%	1.1%	2.3%	3.4%	5.9%	17.9%	23.8%
Native Hawaiian or Pacific Islander*	0.0%	0.0%	0.0%	0.1%	0.2%	0.3%	0.0%	0.0%	0.0%	0.1%	0.3%	.04%
White American	39.0%	46.3%	85.4%	27.2%	36.1%	63.3%	35.1%	46.0%	81.0%	25.5%	35.8%	61.3%
Other	1.2%	2.4%	3.7%	1.2%	2.9%	4.1%	4.0%	4.6%	8.6%	2.0%	3.9%	6.0%

\*UM-St. Louis ethnicity codes do not allow for the separation of Native Hawaiian or Pacific Islander from the Asian American category.

**Summary Faculty Profile ASCO 2005- 2006 and 2006-2007**

	2005-2006	2006-2007
UM-St. Louis	21	21
ASCO Mean	34	34
ASCO Median	34	34

**Research Funds Generated**

	2003-2004	2004-2005	2005-2006
UM-St. Louis	\$298,580	\$133,482	\$118,328
ASCO Mean	\$2,839,893	\$3,339,851	\$3,093,103
ASCP Median	\$464,601	\$1,172,054	\$610,678

**Student Tuition and Fees Entering Classes 2004, 2005 and 2006**

	Resident			Non-Resident		
	2004	2005	2006	2004	2005	2006
UM-St. Louis	\$17,300	\$17,300	\$18,629	\$33,354	\$33,354	\$34,683
ASCO Mean	\$17,007	\$17,943	\$19,068	\$25,686	\$25,826	\$28,115
ASCO Median	\$15,327	\$15,818	\$17,942	\$24,978	\$25,437	\$26,599

**Indebtedness of Graduates 2004 to 2006**

	Year	Number of Students with Debt	Average Indebtedness of Students with Debt	Average Indebtedness of all Students*
UM-St. Louis	2004	34	\$108,101	\$98,336
	2005	44	\$113,058	\$103,000
	2006	34	\$106,140	\$93,383
Mean ASCO	2004	1133	\$108,229	\$94,943
	2005	1105	\$104,248	\$92,755
	2006	1050	\$119,491	\$95,335

\*Includes all graduates with or without debt.

**Degrees Awarded May 2004 to May 1007**

	2004	2005	2006	2007
UM-St. Louis	35	44	34	45
Total ASCO	1289	1251	1220	Unavailable

**The Professional Program of the College of Optometry is accredited by:**

Accreditation Council on Optometric Education  
 243 N. Lindbergh Blvd.  
 St. Louis, MO 63141  
 1-800-365-2219

<http://www.aonet.org/x2729.xml>

The next full evaluation visit to the program is scheduled for November 2008.

(The most recent communication from the ACOE may be found in the appendices)

**VI. Program Planning**

The College Strategic plan may be found in the appendices. The Strategic Priorities for 2005-08 have been highlighted. A draft of new 2008-2013 action plan is attached as an addendum to the strategic plan. The plan reviewed annually by the faculty and administration, serves as a guide for resources allocation within the college.

A comprehensive program and facilities master plan is included in the appendices.