

ACADEMIC PROGRAM
REVIEW REPORT

MICHIGAN COLLEGE OF OPTOMETRY

AUGUST, 2011



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Section 1: Program Overview

A. PROGRAM GOALS

MCO Mission:

The Michigan College of Optometry prepares doctoral and post-doctoral students for successful professional careers, responsible citizenship, and lifelong learning. Through its clinically-based education and patient care, the Michigan College of Optometry serves the optometric health care needs of society.

Goals and Objectives:

1. Maintaining and continuously developing a relevant curriculum
 - a. Assuring the skills and attributes desired of students graduating from MCO are included in the curriculum
 - b. Conducting ongoing track meetings to identify areas of needed improvement
 - c. Determining what is relevant in current optometric practice
 - d. Enhancing the integration of clinical components in the curriculum
 - e. Enhancing existing residencies and investigating the needs for additional residency or graduate programs
 - f. Attaining and maintaining ACOE accreditation standards 6 and 9 pertaining to curriculum and residency education
2. Recruiting, admitting and retaining highly qualified and diverse students
 - a. Continuing aggressive student recruitment efforts, including establishing a student recruitment officer
 - b. Increasing the number and availability of scholarships for students
 - c. Continuing the development of the MCO website
 - d. Developing strategies to attract out-of-state, international, and under-represented minority students
 - e. Promoting the use of student counseling services
 - f. Enhancing tutoring programs
 - g. Enhancing mentorship programs
 - h. Attaining and maintaining ACOE accreditation standard 5 pertaining to students
3. Recruiting and retaining a highly qualified and diverse faculty
 - a. Enhancing the promotion of the College's positive image, reputation, state-of-the-art facilities, and educational opportunities
 - b. Developing faculty by encouraging service and innovation in academic and clinical education and scholarly activity
 - c. Attaining and maintaining ACOE accreditation standard 4 pertaining to faculty.
4. Providing high quality patient care and clinical education in all clinical facilities and locations
 - a. Continuing to evaluate and incorporate appropriate technology in the clinic
 - b. Continuing to evaluate the quality of patient care in all clinics

- c. Enhancing the University Eye Center's status as a referral center and a provider for managed care plans
 - d. Identifying underserved regions or populations and developing plans for community-based services for those groups
 - e. Participating in screening and public education programs that contribute to overall public health
 - f. Exploring the development of additional Grand Rapids clinics to expand patient care opportunities
 - g. Enhancing interdisciplinary and inter-professional collaboration
 - h. Attaining and maintaining ACOE accreditation standards 3 and 7 pertaining to facilities, resources, patient management and patient care policies
5. Providing a facility and work environment that facilitates fulfillment of the mission
 - a. Continuing efforts to secure additional funding for the new building and its furnishings
 - b. Maintaining equipment as funding becomes available to provide a state-of-the-art clinical and patient care education environment
 - c. Identifying future facility needs on and off campus
 - d. Attaining and maintaining ACOE accreditation standard 7 pertaining to facilities, equipment and resources
 6. Enhancing positive relationships with alumni and other friends
 - a. Continuing to foster and develop the MCO Alumni Association
 - b. Hiring a development and continuing education officer
 - c. Providing continuing professional education
 - d. Developing relationships with industry, other educational institutions and government

This set of program goals was drafted by a faculty committee, and then underwent rigorous review and discussion among all of the faculty and administration before these specific goals were adopted for the program by the faculty. These current goals are revised from the goals presented in MCO's last program review, and were adopted in the fall of 2010.

These goals, if met in their entirety, will prepare students upon graduation to begin a professional career in optometry. The list of skills and attributes needed to begin entry level optometric practice (see Appendix) is continually under review, and serves as the substrate for the didactic and clinical curricular offerings.

The mission and goals of MCO relate very well to the University's mission, and are aimed at preparing students for successful careers, responsible citizenship, and lifelong learning.

B. PROGRAM VISIBILITY AND DISTINCTIVENESS

The Michigan College of Optometry is the only school or college of optometry in the state of Michigan, and one of currently 20 nationwide. As such, it is inherently unique in the state. Among the schools and colleges of optometry, MCO now has some novel ways of teaching students, particularly in procedures labs, owing to the move to the new facility. The College is also unique compared to most optometry programs in its small class size.

The profession of optometry continues to struggle with attracting the best and the brightest to consider joining its ranks. The Association of Schools and Colleges of Optometry is currently engaged in two separate but somewhat overlapping joint project teams with the American Optometric Association. One of these is the Workforce Joint Project Team and the other the Joint Project Team on Marketing the Value of Becoming an Optometrist. The long-range goal is an increase nationally in the pool of qualified applicants to the schools and colleges.

The College has just completed the second year of the use of OptomCAS for admissions. This is a centralized application system utilized by all the schools and colleges of optometry. Last year, OptomCAS' first year, MCO had a substantial increase in the number of qualified applicants indicating a desire to enroll. It may have been a one-time bubble, as this year's numbers were down 21% from last year. MCO does not have the manpower to actively recruit in order to make a substantial change in either the number of qualified applicants seeking admission to MCO or the diversity of those applicants. This continues to be an ongoing concern, particularly in the context of the interest in increasing class size following the move to the new facility.

The main competitors for MCO's prospective students are the other Midwestern schools and colleges of optometry, namely, Ohio State University, Indiana University, the Illinois College of Optometry and the Pennsylvania College of Optometry. MCO also loses some students to Southern College of Optometry. The curricula at all of these institutions are similar to that at MCO; the largest differences would be the size of the community in which the school is located and the size of the classes admitted to these programs. Both the Illinois and Pennsylvania Colleges of Optometry have class sizes around 160.

A major reason MCO loses highly qualified students who have been accepted to multiple institutions to the competitors is financial. The substantial increase that occurred in MCO's tuition and its continual rise places the College at a competitive disadvantage (see Appendix). Additionally, some students prefer a larger metropolitan area to the relative coziness of Big Rapids. Recent survey data from accepted applicants who chose to attend another school indicates that a perception of differences in clinical opportunities and patient experiences weighed heavily in their decision making. One big lesson to be learned from our sister institutions is the huge advantage of being able to offer significant scholarships. Unfortunately, from a timing standpoint, MCO is

caught in the need to continue to raise funds for the new building, detracting from our ability to channel donated monies to necessary scholarships.

B. PROGRAM RELEVANCE

All areas of the country need optometrists to serve a population which is increasingly aware of the importance of prevention and proper health care, and which requires the services of optometrists now more than ever. In addition, the aging population of the U.S. will create an ever increasing demand for vision care services over the next several decades. Optometrists are also needed to fill vacancies created through retirement. Currently, there are approximately 35,000 optometrists involved in direct patient care, practicing in about 6,500 communities across the nation. Seventy percent of the eye care market is delivered by Doctors of Optometry.

According to the Department of Labor, employment of optometrists is expected to grow much faster than the average for all occupations through 2018, in response to the vision care needs of a growing and aging population. Excellent job opportunities are expected. Projections data from the National Employment Matrix lists employment of optometrists in 2008 at 34,800, and projected employment in 2018 at 43,200, a 24% projected increase in need.

The curriculum at MCO is under continual review as the scope of the practice of the profession of optometry changes over time. Many aspects of today's curriculum bear little resemblance to the curriculum in place in the late 1970's during the program's formative years. Some of the significant scope of practice expansions that have occurred through legislation with the accompanying curricular elements have included the utilization of diagnostic and then therapeutic pharmacological agents and refractive surgery. Licensing boards, accreditation, and national board examinations all serve as checks on the relevance of the MCO curriculum to modern optometric practice.

In addition to curricular advancements, MCO faculty continue to progress in the use of the latest technology to aide in classroom, laboratory, and clinical instruction and patient care.

In their responses on surveys, students consistently indicate that the number one reason for choosing MCO for their optometric education is the small class size. Other factors include the family-like atmosphere at MCO and the accessibility of the faculty (see appendix for top ten listing). Students report in survey responses a high level of satisfaction with the education, especially clinically, that they have received and how it has prepared them for their futures.

C. PROGRAM VALUE

The presence of MCO on the Ferris campus has a positive impact on the entire University. The new facility, in its prominent location, has reminded people of the quality health care programming that exists at Ferris. The caliber of undergraduate student that is attracted to FSU because MCO is here enhances the educational atmosphere of many undergraduate classes to the benefit of their classmates and instructors alike. These students are also heavily involved in extracurricular activities and services. The level of responsibility and maturity of students enrolled in MCO reflect positively on the College and the University in the community. FSU's image is enhanced because of the reputation of the College of Optometry. The research and other scholarly activity of the faculty sheds a positive light on the University, and, despite the few numbers, the faculty provide service to the institution through their participation in University committees and activities.

The value-added for MCO students is enormous. By the time they graduate, they will have acquired the physical and mental skills to be significant positive contributors to the country's health care system. They are offered the chance to have leadership and volunteer experiences to help them round out their education. They also develop relationships with their classmates and the faculty that will last them a lifetime.

A substantial percentage of the graduates from MCO are self-employed in some form, so employer satisfaction is in reality self-satisfaction with their chosen school and profession. Alumni regard their alma mater highly and value the program from which they graduated.

The benefits to others from associations with MCO are far-reaching. From the standpoint of the clinical program, services provided in the University Eye Center (UEC) affect the visual welfare of persons from a wide area of Michigan. While largely serving local residents, the referral nature of the UEC's specialty clinics result in patients from all over the state coming to the clinic for care. The senior externship program of MCO results in services to many different entities, including VA hospitals as well as other clinics and practices. Outreach clinics from MCO have a significant impact on patients with limited resources, particularly the two school-based clinics the UEC now operates.

The faculty and administrators of MCO have historically been very involved in a wide variety of professional services. Whether serving as association officers in optometric or public health groups or on committees in a wide variety of capacities, the people of MCO contribute significant hours and resources to maintaining contacts with outside groups and promoting the profession both internally and externally (see CVs in Appendix).

Additionally, faculty and staff from MCO provide counseling services for pre-optometry students, professional resources for local support groups such as those for diabetes or low vision, and screening services for such groups as the Strategies program, dormitory residents, and Ferris' sports teams.

Section 2: Collection of Perceptions

As part of the preparation for this report, surveys were conducted with alumni, faculty, students, and the advisory board. The alumni survey was e-mailed to all MCO graduates. The surveys for faculty and students were also conducted via e-mail and online submission. The advisory board survey was an e-mail narrative survey. Copies of all survey instruments are in the Appendix.

A. Graduate follow-up survey

A survey was sent to 502 graduates from MCO whose e-mail addresses were on record. Of these, 156 completed the survey (31% response rate).

A substantial number of the graduates responding reported being gratified with their work (92.1% satisfied) and with their opportunities to utilize their skills (85.5% satisfied). They reported a high level of sense of accomplishment (83%) and level of care given to their patients (94.6%).

When asked about the match between their career description and what they're actually doing, 75% reported satisfaction. Similarly, 76% reported being satisfied with the security of their future in the profession.

B. Employer follow-up survey

Since there is no one clearly definable employer group for our graduates, employer surveys are not appropriate or applicable and were not conducted.

C. Graduating student exit survey

Recent graduates were included in the graduate survey and their responses are included in that summary.

D. Student program evaluation

Student surveys were e-mailed to 140 valid email addresses. 65 students completed surveys (46% response rate).

The respondents represented a good cross section of the student body.

	First Year	Second Year	Third Year	Fourth Year
Respondents	18	10	18	19

The following are the frequencies of student responses on their survey. For each item they had the options of very poor, poor, fair, good, very good, excellent or not applicable.

Doctor of optometry degree curriculum at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	2	3.1	3.1	3.1
	Good	10	15.4	15.4	18.5
	Very Good	22	33.8	33.8	52.3
	Excellent	31	47.7	47.7	100.0
	Total	65	100.0	100.0	

Quality of faculty instruction at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	3	4.6	4.7	4.7
	Good	8	12.3	12.5	17.2
	Very Good	24	36.9	37.5	54.7
	Excellent	29	44.6	45.3	100.0
	Total	64	98.5	100.0	
Missing	System	1	1.5		
Total		65	100.0		

Quality of the clinical care opportunities at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	1	1.5	1.5	1.5
	Good	20	30.8	30.8	32.3
	Very Good	21	32.3	32.3	64.6
	Excellent	20	30.8	30.8	95.4
	N/A	3	4.6	4.6	100.0
	Total	65	100.0	100.0	

Quality of the administrative and staff support at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	1.5	1.5	1.5
	Fair	1	1.5	1.5	3.1
	Good	12	18.5	18.5	21.5
	Very Good	22	33.8	33.8	55.4
	Excellent	29	44.6	44.6	100.0
	Total	65	100.0	100.0	

Quality of the clinical equipment and technology at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	5	7.7	7.8	7.8
	Very Good	12	18.5	18.8	26.6
	Excellent	46	70.8	71.9	98.4
	N/A	1	1.5	1.6	100.0
	Total	64	98.5	100.0	
Missing	System	1	1.5		
Total		65	100.0		

Quality of the classroom/lab equipment and technology at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	6	9.2	9.4	9.4
	Very Good	12	18.5	18.8	28.1
	Excellent	45	69.2	70.3	98.4
	N/A	1	1.5	1.6	100.0
	Total	64	98.5	100.0	
Missing	System	1	1.5		
Total		65	100.0		

Quality of the library at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	5	7.7	7.7	7.7
	Fair	17	26.2	26.2	33.8
	Good	12	18.5	18.5	52.3
	Very Good	4	6.2	6.2	58.5
	Excellent	5	7.7	7.7	66.2
	N/A	22	33.8	33.8	100.0
	Total	65	100.0	100.0	

Quality of the student body at MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	1	1.5	1.5	1.5
	Good	11	16.9	16.9	18.5
	Very Good	29	44.6	44.6	63.1
	Excellent	24	36.9	36.9	100.0
	Total	65	100.0	100.0	

Ability to find/use clinical reference materials to aid in diagnosis/treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	1	1.5	1.6	1.6
	Good	11	16.9	17.2	18.8
	Very Good	23	35.4	35.9	54.7
	Excellent	17	26.2	26.6	81.3
	N/A	12	18.5	18.8	100.0
	Total	64	98.5	100.0	
Missing	System	1	1.5		
Total		65	100.0		

I would still pursue OPT as profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	63	96.9	96.9	96.9
	No	2	3.1	3.1	100.0
	Total	65	100.0	100.0	

I would still want to attend the MCO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	57	87.7	89.1	89.1
	No	7	10.8	10.9	100.0
	Total	64	98.5	100.0	
Missing	System	1	1.5		
Total		65	100.0		

The students generally had a favorable view of both the curriculum at MCO and the quality of faculty instruction; 81.5% responding very good or excellent to the curriculum and 82.8% very good or excellent view of the faculty instruction.

The students were less pleased with the quality of the clinical care opportunities at MCO, with only 63.1% rating them very good or excellent.

The quality of administrative and staff support at MCO was very positively viewed, with 96.9% of the students giving it a favorable rating. Similarly, 100% of the respondents gave positive ratings to the quality of the clinical equipment and technology at MCO. This was true as well for the quality of classroom/lab equipment and technology.

The library at MCO was not viewed as highly by the students, with only 13.9% rating it as very good or excellent.

The students had a generally positive opinion of their peers, with 98.5% giving a good or better response to the quality of the student body at MCO.

In the end, 96.9% of the students who responded to the survey reported that they would still pursue optometry as a profession, and 89.1% of them stated that they would still want to attend MCO. All of the written responses and comments to these two questions and others are in the Appendix.

It is clear from these student impressions that MCO needs to continue its successful efforts at maintaining a relevant curriculum and a high caliber faculty. The new facility and its equipment and furnishings got the expected favorable review, with the exception of the library. At the time the students were completing this survey, the library within MCO was not open yet, did not have shelving units installed, and had all the holdings piled in boxes, likely explaining the students' responses.

E. Faculty perceptions

Surveys were e-mailed to 18 faculty members and 15 completed the survey (83%).

The faculty were quite satisfied with the final outcome of the program, with 100% agreeing (93% strongly) that MCO graduates optometrists with the knowledge and skills necessary to practice. The same level of agreement was shown with the provision of up-to-date clinical optometric care for MCO's patients.

Responses were a little less enthusiastic as to whether MCO develops a strong ethical, social and professional commitment in its graduates (87% agreeing, 20% strongly) and whether lifelong learning abilities are developed in the graduates (73% agreeing, 27% strongly).

Regarding research and scholarly activity, the faculty agreed that MCO compares fairly favorably in its level of activity compared to other colleges without graduate programs (100% agreeing; 27% strongly), but compared to optometry programs with graduate programs, MCO is not seen as comparative (47% agreeing; 7% strongly).

The didactic courses appear to prepare students well for clinic (100% agreement; 53% strongly), and the clinical program reinforces the didactic material well (93% agreement; 53% strongly). The faculty were also quite pleased with the clinical education component of the curriculum, with 87% agreeing (40% strongly) that the second and third year clinical education was excellent, and 93% (40% strongly) agreeing that the fourth year clinical education was excellent. There was a division of the faculty on the question of whether or not the MCO curriculum was in need of revision, with 53% agreeing and 47% disagreeing.

Regarding National Board performance, 100% of the faculty who responded agreed that the MCO student performance on all three parts of the NBEO examination has been good.

The faculty universally agreed (100%; 87% strongly) that MCO needs to be more competitive in attracting excellent out-of-state students. When asked if they felt that FSU's central administration provided the support necessary to make MCO a national leader in optometric education, 83% (33% strongly) disagreed. Similarly, 60% agreed and 40% disagreed that MCO's administration showed the competence to make MCO a

national leader. They had a more positive feeling about the faculty's performance, with 87% agreeing that the faculty had been successful in seeking/utilizing resources to make MCO a national leader.

The MCO faculty work environment was rated favorably, with 93% (60% strongly) agreeing that it was good. Regarding recognition of accomplishments, 67% of the faculty felt they were adequately recognized. 80% of the faculty agreed that they were adequately financially compensated (0% strongly), and 93% agreed that they had adequate input into their work assignments.

As for workload, 93% (27% strongly) disagreed that the MCO faculty's workload provides sufficient time for faculty development or professional activity.

The faculty submitted many written comments on the survey (all of which are included in the appendices). The comments fell into three categories: strengths, areas to improve, and general comments.

To summarize the strength comments, the faculty stated that they were pleased with the doctor to student ratio as a result of the class size, the new facility, the commitment of the faculty, staff, and administration, and the strong clinical education.

Regarding areas of needed improvement, the faculty pointed to the need for increased research opportunities, improved student and patient recruitment, a better way to resolve student misconduct issues, and an assessment of the curriculum. They particularly commented about the need for additional human resources, especially more faculty, and the impact on faculty workload.

Additional comments focused on need to preserve small class size to continue the high level of graduate, the need for increased resources, and the significant detrimental impact of increased faculty workload on performance across the college.

Further discussions will occur at college meetings regarding the curriculum. Efforts will continue to attempt to provide workload relief for the faculty, but in the current economic and political climate that will be challenging.

F. Advisory committee perceptions

Regarding the relevance of MCO's curriculum, the sentiment of the advisors could be summed up by quoting "MCO's curriculum appears to be very relevant to our current professional standards." One advisor commented that "I look back and do not ask 'why did we learn that?' about any portion of my education."

As to the caliber of the graduates of MCO, one advisor stated they were "outstanding," and another said "MCO has prepared these students for clinical practice in every sense."

As would be expected, they are very impressed with the new facility, stating “MCO is very fortunate to have a new state of the art facility and latest optometric technologies incorporated into this new facility.”

They cited several trends for the future of the profession, including a greater emphasis on medical optometry, the impact of social media, the increasing number of schools and colleges of optometry and its potential for depleting of the candidate pool, health care reform, and changes in the scope of optometric practice including the use of lasers.

The faculty will continue to evaluate the relevancy of the curriculum, and laser education is in the forefront of that discussion. MCO is progressing with a plan for marketing the program, partially aimed at enhancing the pool of applicants to the program.

Section 3: PROGRAM PROFILE

PROFILE OF STUDENTS

Profiles of each admitted class are included in the Appendix. With the exception of one year since MCO's last review, the majority (approximately 60%) of admitted students were female. Minority representation in the classes hovered around 8%. Mean age was typically 22. On average, about 6 admitted students per year are from out-of-state.

By the nature of our program, all of our students are full-time, attend classes during the day and on-campus for the first three years of the program. The fourth year students are on externships and almost all of those are off-campus (for site list see appendix). Also, during their fourth year, our students have one 100% on-line course.

Because our program has a lock-step curriculum, all our students are block scheduled in a predetermined schedule, so it is relatively easily managed.

The class profiles also show that, on average, our entering students have a mean undergraduate GPA of 3.52, and mean Optometry Admissions Test (OAT) scores of 330. Our graduating students have GPAs ranging from about 2.5 to 4.00, with a mean around 3.25. Our admissions process includes evaluation of not only GPA and OAT scores, but letters of interest and intent, letters of recommendation, and an interview. All applications go through the national centralized application system, OptomCAS.

Typically, over half of the graduating doctors are eligible for membership in Beta Sigma Kappa, an international optometric honor society. Eligibility is based on GPA at graduation, with a minimum of 3.2 required for membership.

At the conclusion of the program, the graduates are eligible for about a dozen awards sponsored by various industry partners that are presented each year, in addition to four research awards presented by the college for outstanding work on senior projects. These are viewed as special recognition for clinical excellence in particular areas of optometric care. Additionally, some exceptional senior projects are published or presented as posters at national optometric meetings.

As they receive their degrees, students are also recognized for participation in such activities as Student Volunteer Optometric Service to Humanity (SVOSH) missions, and one graduate is recognized by his or her peers as having contributed exceptionally in service to the class and the college during their four years at MCO.

EMPLOYABILITY

Historically, all graduates of MCO are employed in optometry in some capacity shortly after graduation and licensure. The available types of practice are numerous, but the graduates all find some mode shortly after becoming legally able to see patients independently.

The initial salary a new graduate from MCO can expect will vary significantly depending on which option they choose for practice. If they enter a residency, they will make about \$31,000 plus benefits for that year. Those graduates who enter a group private practice may be offered initial salaries ranging from \$65,000 to \$90,000 per year. If they choose corporate practice, they may be offered salaries in excess of \$100,000. Other graduates may choose to further their education and attend graduate school and not collect a salary until their advanced degree is awarded.

MCO maintains a binder containing solicitations we continually receive from private practitioners seeking associates. The American Optometric Association has a matching service that also serves to connect practitioners looking for help with graduates seeking employment.

Currently MCO has information on 1222 alumni revealing that 888 (64%) are currently in the state of Michigan. The other states with the most MCO alums include Florida (33), Wisconsin (22), Indiana (15), and Ohio (5).

MCO graduates consistently compete very favorably for available residency positions. Of MCO's graduates from 2009, 18 (48%) went into residencies following graduation. This was the second highest percentage of any school or college of optometry in the country. In 2010, 14 graduates (38%) took residency assignments. Most of the available optometric residencies are in VA hospitals.

ENROLLMENT

Total fall enrollment for 2011 in MCO is estimated to be 146. Total enrollments for MCO since the last program review have been:

	2005	2006	2007	2008	2009	2010
Students	131	133	138	146	146	143

The pattern of total applicants to MCO has been as follows:

	2005	2006	2007	2008	2009	2010
Applicants	161	255	253	268	264	489

For the class entering in the fall of 2010, a nationwide electronic centralized application system (OptomCAS) was implemented for all the schools and colleges of optometry. This facilitated applicants' awareness of and ability to apply to more schools and

colleges. As the numbers indicate, MCO got a huge increase in interest among prospective applicants via the OptomCAS process. In the end, the profile of the 2010 entering class (overall average GPA 3.60, average OAT 325) was not significantly different than the prior year (overall average GPA 3.43, average OAT 336).

Number of interviewed applicants by year:

	2005	2006	2007	2008	2009	2010
Interviewees	59	63	75	74	80	92

Number of admitted applicants by year:

	2005	2006	2007	2008	2009	2010
Admitted	36	36	36	36	36	38

The Michigan College of Optometry is expected to increase enrollment, as the capacity of the new facility allows for increased class sizes beyond what was possible in Pennock Hall. There are a host of factors that are intertwined with the class size, and class size changes need to be planned for appropriately. Increased enrollment ultimately requires an increased number of faculty, most particularly in the laboratory and clinical courses. Each student, when they reach their fourth year, requires three externship sites. These sites need to meet specific educational requirements and have to be carefully cultivated to meet MCO's clinical educational needs.

MCO has acquired, over many years of experience, a good understanding of the minimal academic qualifications an applicant must possess to have a reasonable expectation of succeeding in the rigorous optometric academic program. If the applicant pool to MCO does not continue to be robust, increasing class sizes will be problematic. There are currently many challenges to the nationwide applicant pool to optometry programs. The total ratio of applicants to seats available nationwide is significantly less than 2:1. The pressure on the applicant pool has increased significantly with the opening of 3 new schools of optometry in the past 3 years, and 2 more schools will be opening in the next 2 years. The number of available seats has increased nationwide approximately 12%, and enrollment in optometry program nationwide is up 12.9% since 2003 (see Appendix).

There are two national task forces, collaborations between the American Optometric Association and the Association of Schools and Colleges of Optometry, looking at the workforce needs of the profession and how to market the profession to highly qualified students. MCO works with the Honors Program at FSU, with the pre-optometry club on campus, and with pre-optometry clubs elsewhere, to provide information about our program. MCO does not have the available resources either in personnel or finances to exhaustively recruit in competition with other optometry programs in the region.

PROGRAM CAPACITY

The classrooms, laboratories, and clinical spaces in the new facility will accommodate a potential entering class size of 48.

The current budget for MCO was not designed to absorb the increased costs associated with this level of enrollment, particularly in regards to the faculty staffing levels which will be required. The optometry accreditation standards do not dictate specific numerical student:faculty ratios, but generally accepted guides are considered. The accrediting body (Accreditation Council on Optometric Education- ACOE) does consider the number of seats available nationwide and does require justification for increases in class size beyond 5%.

There is currently no good data regarding the shortage (or overabundance) of the supply of optometrists regionally or nationally, but such a study is underway as was previously mentioned. Private practice optometrists argue bitterly both publicly and privately that the schools and colleges are currently flooding the market with too many graduates for the good of the profession.

Current limitations to class size include the size of the qualified applicant pool, the number of faculty, the ability to justify the increase in graduates with workforce data, the availability of a suitable number of patient experiences for appropriate clinical education and the availability of externship rotation placement sites.

RETENTION AND GRADUATION

The attrition rate from each entering class at MCO at the conclusion of their first year was as follows (number of students):

	2005	2006	2007	2008	2009	2010
Attrition	1	0	0	0	0	1

At MCO, rates of attrition and extended programs or probation are almost totally related to quality of applicant pool. In those years when, in order to fill the class size, the alternate pool was extensively used, the number of students with academic difficulties goes up despite the significant extra efforts of faculty and staff.

MCO continues to provide multiple avenues to retain students, starting with almost unlimited access to their respective faculty. Tutoring is regularly available to students who are struggling. When students are placed on academic probation, specific strategies for remediation are devised and agreed upon. Students who fail a course are dismissed from MCO but are frequently readmitted upon appeal to an extended and customized 5-year program.

On average the vast majority of our admitted students completed the prescribed program in four years and graduated.

	2006	2007	2008	2009	2010	2011
Graduates	34	33	29	35	38	33

Since the past review, MCO has averaged one 5-year graduate in each graduating class.

ACCESS

The optometry program at MCO does not lend itself to alternate site delivery. The students must be on-campus in Big Rapids during their first three years.

MCO ADMISSION REQUIREMENTS

Applicants to the Michigan College of Optometry must complete a minimum of three years (90 semester hours or 135 quarter term hours) of college or university education or have earned a baccalaureate degree prior to admission. An earned baccalaureate degree is preferred. An application may be submitted while the minimum requirements are being completed.

Pre-professional college/university courses must include completion of the following with a grade of C or better. Science courses should be courses designed for science majors or health professional students. As a guide, the appropriate Ferris State University course is provided in parentheses beside each requirement. An applicant can go to the on-line Ferris State University Catalog, type in the course ID number (example: BIOL 122) to obtain the course description. This may assist in determining the "equivalent" courses at other out-of-state institutions.

- General Biology one year with laboratory (BIOL 121, 122)
- Inorganic Chemistry, one year with laboratory (CHEM 121, 122)
- Organic Chemistry, one year with laboratory (CHEM 321, 322)
- General Physics, one year with laboratory (PHYS 211, 212)
- Microbiology one course with laboratory (BIOL 286)
- Calculus, one course (MATH 220)
- Statistics, one course (MATH 251 or STQM 260 or PSYC 210)
- Speech, one course (COMM 121)
- General psychology, one course (PSYC 150)

Additional required courses for individuals entering without a baccalaureate degree:

- English/Composition, one year (ENGL 150, 250)
- Humanities, 9 semester hours (Humanities includes: Cultural Enrichment , Art, Drama, Foreign Language, History, Literature, Music, Philosophy, and Theology)

- Behavioral Science, 6 semester hours in addition to the general psychology course above (Behavioral Sciences include: Anthropology, Economics, Geography, Political Science, Psychology, Social Science, Sociology)

The following courses are strongly recommended but not required:

in order of importance:

- Physiology (BIOL 205 or BIOL 321/322)
- Biochemistry (CHEM 324 or CHEM 364)
- Genetics (BIOL 375)
- Cell Biology (BIOL 373)
- Anatomy (BIOL 205)
- Embryology/Developmental Biology (BIOL 370)
- Business management or accounting (MGMT 310 or ACCT 201)

Applicants are instructed to recognize that every applicant will have met the minimum requirements. The Admissions Committee looks for additional information that will help them determine the strongest applicants with evidence that they will be able to succeed in a very heavy and challenging curriculum. Applicants are required to have a minimum number of 300 (junior) level and above courses to enable the Admissions Committee to adequately determine the applicant's academic ability. The recommended courses can serve as such an indicator, especially for those applicants entering without a bachelor's degree. The bachelor in applied biology (121 credit minimum) would be the appropriate major for undergraduate students at Ferris State University to complete the suggested preferred bachelor's degree.

In addition to the general pre-optometry admission requirements, those lacking a bachelor's degree but wishing to seek the B.S. in Vision Science degree offered by MCO as an interim degree are required to complete an Advanced English/Writing course and a 200 level or higher course as a part of the 6 semester hours in behavioral science.

All applicants to the Michigan College of Optometry are required to sit for the Optometry Admissions Test (OAT), which is designed to measure general academic ability and scientific knowledge. The OAT test is available in computerized version only. The computerized version is given continuously on an individually arranged basis. The OAT must be taken by February 15.

The MCO Admissions Committee prefers scores of 300 or higher in each of the categories on the OAT examination, unless there are extenuating circumstances that apply to scores less than 300. It is possible that the examination will be taken prior to the time when all the courses related to examination are yet to be completed. The admissions committee takes that fact into consideration during their evaluation.

While academics are a very important part of being accepted into the College of Optometry, MCO is not simply looking for academic performance alone. In addition to the academic requirements, all applicants will be evaluated on the communication, writing and inter-personal skills that are necessary to practice optometry. Included in this category of evaluation are the applicant's own letter, letters of reference and an interview. Also, the preference is for a well-rounded applicant who has been involved in a variety of extracurricular activities while continuing to perform well academically. Following is a list of some suggested extracurricular activities; however, this is not an all-inclusive list. The applicant should choose those activities that are best suited to their personality and interests. If there are extenuating circumstances that preclude significant involvement in outside activities, the Admissions Committee is typically understanding of those situations.

Sports	Volunteering
Debate/Forensics	Student Government
Campus Religious Groups	Tutoring
Pre-Optometry Club	Service Organizations
Fraternities/Sororities	

All applicants need to be aware that the Admissions Committee also views knowledge of the profession of optometry to be of vital importance. This is best achieved by visiting one or more optometrists on several occasions to observe patient care on a first-hand basis. Seeking to volunteer or working in an optometrist's office is a certain way to gain understanding of and appreciation for the profession.

CURRICULUM

The completion of the Doctor of Optometry degree requires four academic years and two summer terms comprising 175 semester hours of study. The degree Bachelor of Science in Vision Science can be granted following completion of the first year of the professional program provided the student has completed all of the University distribution requirements and does not hold a prior bachelor's degree.

OPTOMETRY CURRICULUM AND PATIENT CARE

First year courses cover the basic health and vision sciences which serve as a foundation for the clinical sciences. Included are a broad range of courses: biochemistry, proteomics and genomics, human anatomy and physiology, ocular anatomy, ocular physiology, geometrical, physical and visual optics; vision science, microbiology and immunology, ethics, as well as courses in health services organization

and policy. Students also begin their clinical experience in the second semester in a clinical simulation laboratory with fellow students serving as "patients."

Second year students begin their first direct patient care experience during the Spring semester. A close relationship, achieved through a one-to-one faculty to student ratio, provides for detailed observation, evaluation, and feedback on the student's early clinical performance. Clinical experiences include interviews, examinations, and an understanding of diagnostic techniques and treatment services, including the prescription of spectacle lenses. Lectures and laboratories build upon the previous knowledge from basic health and vision science courses and introduce new topics including: general and ocular pathology, general and ocular pharmacology, ophthalmic and environmental optics, contact lenses, strabismus and vision therapy, neuroanatomy and neurophysiology; and clinical case-study reviews to enhance analytical reasoning and decision making skills in primary care diagnosis, management and treatment.

Third year courses focus on contact lenses, assessment and management of visual disorders and developmental problems in children, care of the elderly and low vision patients, applied neuro-optometry, the advanced diagnosis, treatment and management of ocular diseases, including pre and post surgical management of ocular conditions; and the use of therapeutic pharmacological agents in the management of ocular and systemic disease. The summer semester includes courses on environmental vision, public health, physical examination and diagnostic procedures, an injectable pharmaceutical laboratory and advanced study of laser and refractive surgery. Clinical practice continues in primary care, pediatrics and contact lenses with the student assigned to 16 hours of clinic per week to include direct patient care under the supervision of and in consultation with the student's clinical professor who monitors the progress and provides guidance where necessary. A low student to faculty ratio is a fundamental strength in the third year clinical training program. Patients identified as needing specialty diagnostic or treatment services are seen by third and fourth year students and the faculty. Vision screenings for all athletic teams on campus and many students living in university residence halls provide further supervised practice, and help to promote vision and eye health wellness within the University community. The coordination of didactics with clinic during the third year serve to enhance the student's communication skills, empathy, sensitivity to patient needs and concerns, and awareness of the role of the optometrist in the health care system. Patient medical record audits sensitize the student to the requirements for proper and complete record keeping and the need to continually monitor the quality of patient care.

All didactic courses are deliberately offered within the first three years of the curriculum so that students receive a concentrated clinical experience the entire fourth year. Except for the web seminar course, administrative conferences and senior research projects, emphasis is on real time clinical activities. The fourth professional year extends over a full calendar year divided into three 15 week rotations. Some students

elect to spend one rotation in residence at the University Eye Center, while electing two others from among the affiliated external clinic sites which include the Department of Veterans Affairs Medical Centers, health maintenance organizations, military medical facilities, ophthalmic co-management consultation centers, State Department of Corrections facilities, and optometric and ophthalmologic private practices. Fourth year externships provide experience working in multi-disciplinary health care settings, increase the number and diversity of patient care experiences, and broaden the awareness of factors affecting health care delivery in our society. The network of affiliated sites greatly broadens the students' clinical training and allows the student to gain a degree of independence from the parent institution. This is advantageous for both professional and personal development.

Students also spend clinic time in specialty clinics, including: pediatric primary care and developmental vision analysis, infant clinic, medical eye care (including urgent and emergency on-call service), geriatric primary care, low vision service, contact lens care, and advanced primary care practice. Low student to faculty ratios continue to be maintained in both on-campus and off-campus clinical training. Throughout the curriculum the relationships between basic science and clinical science, theory and practice, are continually emphasized.

Prior to graduation, students attending the Michigan College of Optometry will typically experience in excess of 1500 patient examinations - an extraordinary number of patient contacts and an exceptional educational opportunity.

CURRICULUM 2010 - 2011

FIRST PROFESSIONAL YEAR

Fall Semester

Credits

OPTM 537	Anatomy and Physiology for OPTM 1	5
OPTM 530	Biochemistry, Proteomics and Genomics	4
OPTM 511	Introduction to Optometry	1
OPTM 514	Ethics and the Dr/ Patient Relationship	1
OPTM 524	Geometric, Physical and Visual Optics 1	5
OPTM 534	Ocular Anatomy and Physiology	4
Semester Subtotal		20

Spring Semester

Credits

OPTM 538	Anatomy and Physiology OPTM 2	3
BIOL 438	Microbiology & Immunology for Optometry	4
OPTM 525	Geometric, Physical & Visual Optics 2	4
OPTM 526	Vision Science 1	5
OPTM 543	Optometric Procedures 1	5

Semester Subtotal 21

SECOND PROFESSIONAL YEAR

Fall Semester

Credits

OPTM 615	Practice Management 1	2
OPTM 627	Vision Science 2	4
OPTM 628	Ophthalmic Optics	4
OPTM 630	General Pathology	4
OPTM 635	Neuroanatomy & Neurophysiology	3
OPTM 644	Optometric Procedures 2	3
Semester Subtotal		20

Spring Semester

Credits

OPTM 629	Ophthalmic Dispensing Lab	1
OPTM 636	Diagnosis & Treatment of Anterior Segment Disease	3
OPTM 645	Diagnosis of Accommodation & Binocular Dysfunction	4
OPTM 648	Contact Lenses 1	4
OPTM 650	Optometry Clinic 2 -1	1
OPTM 730	Physical Examination & Diagnostic Procedures	2
OPTM 735	Laser & Refractive Surgery	1
OPTM 657	Clinical Problem Solving 1	1
Semester Subtotal		17

THIRD PROFESSIONAL YEAR

Summer Semester

Credits

OPTM 638	General and Ocular Pharmacology	5
OPTM 717	Public Health and Optometry	3
OPTM 738	Injectable Pharmaceuticals Lab	1
OPTM 743	Environmental Vision	2
OPTM 746	Treatment of Accommodation & Binocular Dysfunction	2
OPTM 749	Contact Lenses 2	2
OPTM 751	Optometry Clinic 3-1	1
OPTM 758	Clinical Problem Solving 2	1
Semester Subtotal		17

Fall Semester

Credits

OPTM 732	Pharmaceutical Management of Ocular Conditions	2
OPTM 734	Diagnosis & Treatment of Glaucoma	2
OPTM 736	Diagnosis & Treatment of Posterior Segment Diseases	4
OPTM 741	Developmental & Behavioral Pediatric Optometry	4

OPTM 752	Optometry Clinic 3-2	6
Semester Subtotal		18

Spring Semester		Credits
OPTM 744	Optometric Gerontology	1
OPTM 718	Practice Management 2	3
OPTM 737	Advanced Ocular Disease & Surgical Management	2
OPTM 739	Clinical Neuro-optometry	2
OPTM 745	Low Vision	3
OPTM 753	Optometry Clinic 3-3	6
OPTM 759	Clinical Problem Solving 3	1
Semester Subtotal		18

FOURTH PROFESSIONAL YEAR

Summer Semester		Credits
OPTM 811	Web Seminar 1	1
OPTM 854	Clinical Practice 1	13
Semester Subtotal		14

Fall Semester		Credits
OPTM 812	Web Seminar 2	1
OPTM 855	Clinical Practice 2	13
Semester Subtotal		1

Spring Semester		Credits
OPTM 813	Web Seminar 3	1
OPTM 817	Research Project	2
OPTM 856	Clinical Practice 3	13
Semester Subtotal		16

TOTAL CURRICULUM CREDIT HOURS
175

Optometry Curriculum Revisions: Academic Year 2005-2006

There were numerous changes made to the optometry curriculum during year 2004, with the most notable change being an inclusion of a summer semester after the second year of study for the entering class of 2005. There were course additions and

course relocations in the Fall and Winter semesters of 1st, 2nd, 3rd and 4th year curricula, which can be inferred from the attached curricula.

The reasons that motivated these changes are summarized below.

1. There was growing concern and consensus by faculty that the 2004 (and prior) curriculum did not reflect the required depth and expanse of knowledge dictated by the growth in the scope of practice of Optometry. There was a need to include courses on injectable pharmaceuticals, and a specialized course on the diagnosis and treatment of glaucoma.
2. There was growing consensus by graduates and students in the program for an increased emphasis on practice management.
3. Performance of students in the 2006 and prior NBEO seemed to be selectively depressed in the areas of biochemistry, microbiology and immunology. These observations necessitated an increased emphasis in these specific areas of basic science.

In response to the above, the following courses were included in the 2005/2006 curriculum:

1st YEAR	COURSE
Fall	<ul style="list-style-type: none"> • Medical Biochemistry (Changed to Biochemistry, Proteomics and Genomics in 2006/2007 curriculum)
Spring	<ul style="list-style-type: none"> • Microbiology and Immunology
2nd YEAR	
Fall	<ul style="list-style-type: none"> • Practice Management 1
3rd YEAR	
Summer	<ul style="list-style-type: none"> • Injectable Pharmaceuticals Lab • Laser & Refractive Surgery • Basic Science Capstone
Fall	<ul style="list-style-type: none"> • Physical Examination & Diagnostic Procedures • Diagnosis & Treatment of Glaucoma
Spring	<ul style="list-style-type: none"> • Practice Management 2

Optometry Curriculum Revisions: Academic Year 2010-11

General and Ocular Pharmacology (OPTM 638) was relocated to the summer semester of third year and assigned the course number OPTM 733. The relocation of this course was necessary as the faculty member teaching this course was unavailable to do so during the spring semester of the second year due to scheduling conflicts with other classes he teaches. In order to accommodate the course relocation, two other courses (Physical Exam and Diagnostic Procedures, Laser and Refractive Surgery) that were traditionally offered in the summer semester of third year had to be relocated to the

spring semester of the second year. The relocation of these courses allowed a more even distribution of course credits between the two semesters involved.

The changes listed below were proposed to and accepted by the Michigan College of Optometry Curriculum Committee, Faculty, and Dean and are presently awaiting approval by the University Curriculum Committee, the Academic Senate, and the Vice President for Academic Affairs.

MCO Course Name	Former Course Number	New Course Number
Physical Exam and Diagnostic Procedures	OPTM 730	OPTM 631
Laser and Refractive Surgery	OPTM 735	OPTM 637
General and Ocular Pharmacology	OPTM 638	OPTM 733

CURRICULUM ASSESSMENT

In an attempt to evaluate the effectiveness of the MCO curriculum for this review, we have employed four primary outcome measures.

1. Performance on the National Board Examinations

The overarching mission of the National Board Examinations is to serve the public and the profession of optometry by administering, scoring, and reporting results of valid national examinations that assess entry-level competence of Optometry students. The examination comprises three parts that are administered in the 3rd and 4th years of study.

Part 1 of the exam is termed "Applied Basic Science" and comprises multiple choice test questions relating to clinical concepts in the areas of pharmacology, optics and vision science, biochemistry and physiology, anatomy, immunology, microbiology, and pathology. Currently, student candidates must be in the spring of their 3rd academic year to take the Part I exam.

The Part II examination, entitled "Patient Assessment and Management" (PAM), is targeted to assess entry-level competence in diagnosis and treatment of ocular and visual conditions. The exam comprises 60 simulated patient cases and is administered over two sessions, each 3 ½ hours in length. The patient cases generally focus on either typical presentations of relatively high-frequency conditions or conditions with low-frequency but high-criticality. Approximately 60-70% of exam comprises patient cases relating to disease and trauma, while 30-40% of the cases relate to refractive status, sensory and oculomotor processes. Currently, student candidates must be midway through their fourth academic year to eligible to take the exam.

The Part III examination, currently termed "Clinical Skills", is a practical assessment of the clinical skills of the candidate. In this examination, the candidate examines a different patient at each of four 30-minute stations, in the performance of 18 clinical skills. Although this examination primarily measures psychomotor skills, it contains an assessment of affective (i.e., clinical habits and attitudes) and communication skills, as well as some interpretation of clinical findings. The examination was typically administered in one 3.5 hour session, usually in the final spring semester of their 4th year of study. Beginning with this year's fourth year class, the entire Part III exam is administered at the National Board testing site in Charlotte, North Carolina. Students can sign up for a time on-line and take the exam any time during their fourth year.

The results for the pass rates in Parts 1, 2 and 3 of the NBEO are in the appendix. A detail breakdown by discipline and content area is provided for the year of 2010 and 2011 as well. It is evident that MCO has performed well above the National pass rate over the past 6 years for all 3 parts of the NBEO. MCO has managed to maintain an average pass rate of approximately 94% for first-time takers on their initial attempt for the years spanning 2007 to 2011. These statistics are further bolstered by the results of the faculty survey which showed that 93.3% of faculty "strongly agree" and "somewhat agree" that the performance of MCO students in parts 1, 2 and 3 of the NBEO has been good over the past 7 years. However, the year 2006 was an exception, especially given the lower than national average pass rate.

In an attempt to address the substandard performance of students in the year 2006, a Basic Capstone Course was introduced into the summer semester of the 2nd year of study for the academic years of 2007 and 2008. This course comprised modules that were specifically geared towards a review of pertinent topics typically covered in the NBEO. The review was conducted by faculty at the Michigan College of Optometry. Since January 2008, the NBEO review course was administered independently by KMK educational services. This service is provided by a private company of educators, including practicing clinicians and active researchers, who specialize in developing review courses for optometry standardized exams. The service was founded in 2005, and is primarily geared toward helping students prepare for NBEO Part 1 and Part 2 exams. This course is not offered through the Michigan College of Optometry curriculum. Students are responsible for registering for the course and paying for their services through personal funds. The MCO Basic Capstone Course was discontinued after 2008.

2. Graduate residency placement

The Accreditation Council on Optometric Education (ACOE) defines an optometric residency program as a planned program of post-doctoral clinical education with the specific aim of significantly advancing the optometric graduate's preparation as a provider of patient care services beyond entry level practice. It includes at least twelve months of intensive clinical patient care experience in a specialized area of optometry

practice (such as, but not limited to: ocular disease, contact lenses, pediatric and binocular vision, low vision, primary care) and usually includes a mix of self-directed learning, seminar participation, instructional experiences, and scholarship. While eligibility to apply for an optometric residency is open to all optometry graduates from an accredited optometric institution, their successful placement in a given residency is highly competitive. The Michigan College of Optometry has seen a significant increase in both the number of its graduates applying for residency programs and the number of graduates being successfully placed in their preferred residency program. In 2005, 25% of the graduating class from MCO applied for residency programs (see appendix). This number has increased significantly to 40% in the year 2010. The national ranking for the percentage of graduating MCO students applying for a residency (compared to 19 accredited schools of optometry) was 6th in the nation in 2005, and progressed to 4th in the nation in 2010. In 2005, approximately 75% of residency applicants from MCO were successfully placed in a residency. This number has increased to approximately 91% for the academic year of 2009 and 73% for the year 2010. Based on calculations of the year 2011, there were only 326 available residency positions and 477 applicants in the matching pool. This gives each student approximately a 68% chance of being successfully matched. In light of this statistic, it is evident that MCO has performed consistently above this national level.

3. Alumni Survey

The results of this survey are based upon the responses of 156 MCO Alumni. Question 12 of the Alumni survey pertained to the respondents perceived level of satisfaction with their optometry school education, specifically in the context of being prepared for entry level practice. The results of this question are included in the appendix.

On average approximately 74% of all respondents were satisfied (somewhat-satisfied to very- satisfied) with their education, with responses ranging from of 41% to 91.5%. Of notable interest is that 91.5% of all respondents were satisfied with their education in primary care which is by far the most common type of patient encounters in optometric practices. Furthermore, approximately 73% of the respondents responded positively regarding self-directed lifelong learning. The latter statistic attests to the efficacy of the program in providing the necessary tools for graduates to successfully and independently pursue academic and clinical empowerment well after graduation. Arguably, there was a lower level of satisfaction with the content area pertaining to practice management. However, this statistic is in stark contrast to the satisfaction statistic when analyzed according to respondent's years in practice. It becomes apparent that approximately 75% of graduates with less than 2 years in practice were satisfied (somewhat-satisfied to very- satisfied) with their education in the content area of practice management. This corresponds to the graduating class that benefitted from the change in curriculum made in 2006, which currently comprises an increased emphasis on practice management in the fall of second year and spring of the third year of study.

4. Faculty Survey

An online faculty survey was administered to 18 Faculty at the Michigan College of Optometry. A total of 15 Faculty responded which corresponds to an 83.3% response rate. There were 25 items that comprised the survey, of which items 23 to 25 pertained to faculty comments on strengths of the program, areas to improve and additional comments, respectively. The following items were identified as been directly related to the section on curriculum evaluation: Items 1 to 4, and items 7 to 13. The item numbers refer to the item sequence as they appear in the survey report. It is evident that the perceived quality and scope of optometric education by the faculty is commendably high as inferred from the responses to the items listed above. The mean cumulative percentage of faculty that "strongly agreed" and "somewhat agreed" to the statements was approximately 92%, with a range of 73.4% to 100%. The responses to item 11 ("The OD curriculum needs to be revised") are a notable exception to this assertion. Approximately 53.3% of faculty "strongly agreed" and "somewhat agreed" to the statement while 46.6% "strongly disagreed" and "somewhat disagreed" to the statement. A review of the comments provided by faculty in response to the items pertaining to "strengths" and "areas that need improvement", have identified several issues that are of relevance to the curriculum and may partly account for the split responses to this item ("The OD curriculum needs to be revised"). The comments seem to converge consistently on increasing patient encounters at the MCO on-site clinic, specifically for 3rd and 4th year students. There was also a comment requesting modification to the 4th year externship program to enhance the clinical experience of students. Additionally there was a comment that the current curriculum lacks logical flow and has redundancies. Notwithstanding the above, several members of Faculty have cited the didactic education, clinical education, and clinical exposure at MCO as definite strengths of the program.

In summary, the results from this survey suggest that the perceived quality and scope of optometric education is exceptionally high, however, regular assessment of the curriculum is desired.

RESIDENCY EDUCATION

Some graduates who wish to specialize in certain aspects of eye care or go into optometric education benefit greatly from an additional year of clinical training in the desired specialty area. The Michigan College of Optometry offers seven post-doctoral residency programs.

- OCULAR DISEASE - Battle Creek VAMC
- OCULAR DISEASE - Grand Rapids VA
- OCULAR DISEASE - Jackson TLC/MCO
- OCULAR DISEASE/PRIMARY CARE - VA Northern Indiana Health Care System
- CORNEA/CONTACT LENSES - Michigan College of Optometry

- OCULAR DISEASE - Detroit VAMC
- PEDIATRIC AND BINOCULAR VISION - Michigan College of Optometry
- PRIMARY CARE - Henry Ford OptimEyes WBSVC

The goals of these residencies are:

- To increase the resident’s clinical competence and confidence in patient care.
- To enhance the resident’s ophthalmic knowledge base, as well as his or her ability to apply this in the clinical setting.
- To expand the resident’s skills as an optometric educator.
- To enhance the resident’s ability to function in a multidisciplinary health care environment.

The general residency completion requirements are:

- complete all program-specific completion requirements, attendance, and satisfactory clinical and professional achievements
- complete all periodic written evaluations completed
- fulfillment of terms of employment

At the programs end, each resident receives a certificate of completion. All residencies are one year in duration and are either accredited or in the process of accreditation by the Accreditation Council on Optometric Education (ACOE).

FACULTY

The full-time tenure track faculty members of MCO are:

<u>Faculty Member</u>	<u>Rank</u>
Amy Dinardo	Assistant Professor
Robert Carter	Professor
Sarah Hinkley	Associate Professor
Roger Kamen	Professor
Michael Keating	Professor
Karen Kehbein	Assistant Professor
Josh Lotoczky	Associate Professor
Dean Luplow	Assistant Professor
Renee Mika	Associate Professor
Jim Miller	Professor
Bruce Morgan	Professor
Jim Nash	Assistant Professor
John Pole	Professor
Avesh Raghunandan	Associate Professor

Vandana Rajaram	Assistant Professor
Mark Swan	Professor
Randy Vance	Professor
Phil Walling	Professor

MCO also has one half-time tenured faculty member:

<u>Faculty Member</u>	<u>Rank</u>
Dan Wrubel	Professor

The curriculum vitae of these faculty members are in the appendix. All of the faculty members but one have an O.D. degree, and the one other has a Ph.D. Additionally, three of the O.D.s have Ph.D.s as well and three have masters degrees.

Beyond the MCO faculty, MCO utilizes the talents of additional FSU faculty to teach program courses, including Beth Zimmer, Michael Ryan, Jim Scott, and Rick Hult. Also, MCO has an individual currently in a non-general fund administrative position who is teaching a full load, Jamie Brady. Two of the permanent faculty are on 9-month contracts; all of the remaining are on 12-month contracts. The two 9-month faculty are on reduced workload assignments in anticipation of upcoming retirement. One 12-month faculty member will also be commenced a reduced workload schedule beginning in spring semester this year, also in advance of retirement.

MCO faculty participate in many professional development related activities. Many take advantage of programs offered through the Faculty Center for Teaching and Learning. New faculty have participated in the Center's new faculty program. The faculty development committee provides monthly seminars for faculty, students, and staff on wide-ranging topics germane to eye and vision care.

Since MCO's last program review, 6 faculty members have been promoted and 4 have received merit increases. There have been a significant number of professional activities among these and all faculty to warrant these recognitions. Most of these are highlighted in their CVs.

Workload

The faculty at MCO continues to work under an antiquated workload policy that only addresses scheduled contact time, and does so in an unrealistic manner. Currently, faculty are considered to have a full load if they teach 9 hours of lecture, 18 hours of lab, or 22 hours of clinic per week. In reality, no faculty member performs any of these activities solely, but all are some combination of two or usually all three of these categories.

A revised workload policy has been accepted by the faculty and administration of MCO and has been submitted to the Academic Affairs office for review. It has not been accepted at this time. It is included in the appendix.

There are many activities for which faculty members are reassigned to administrative duties within MCO. The list is summarized in the faculty reassignment policy which is part of the proposed workload policy.

Recruitment

New faculty are typically recruited at regional and national meetings, by word of mouth, and with advertisements in optometric publications. Most new faculty are required to have an O.D. degree, residency training or its equivalent, and some experience in the area of optometry for which the position is sought. MCO seeks to broaden the diversity of the faculty, and has been quite successful in recent years in both racial and gender diversity hiring.

Rewards

MCO awards each faculty member an amount annually in a professional development account, which they can use for travel to meetings or for other educationally related expenses. The faculty development fund policy is included in the appendix.

For the time being, because of the longevity of faculty at MCO, there is sufficient funding in salary lines of retiring faculty to hire new faculty.

MCO does not have a set policy or procedures for research funding. Very limited budget funds are available. Outside grants from corporations for product research are available occasionally. It's possible that with the initiation of a more formal grants office on campus that others may seek funding for projects from a variety of sources. The majority of the faculty do not have time available for large scale projects.

Adjunct Faculty

MCO utilizes the skills and talents of many adjunct faculty to provide mostly clinical education to our students. A current list of those individuals, presently numbering 95, is included in the appendix. All of these adjunct faculty have either an O.D., M.D. or D.O. degree.

The use of these adjunct faculty members is both appropriate and necessary. The majority of these individuals provide individualized clinical education to fourth year students during their externship rotations. A few also provide clinical education at the campus clinic to second, third, and fourth year interns. They all have clinical faculty

appointments. The ACOE recognizes that there is a need for the contributions of these faculty and has no issue with their appointments.

ASSESSMENT AND EVALUATION

Program assessment, unit assessment and unit objectives reports from TracDat are included in the appendix. Following is the curriculum map from TracDat.

Admittedly, MCO has lagged some in loading TracDat information and keeping it current. Currently MCO has five program outcomes with identified means of assessment. These outcomes are:

- Course grades and pass rates
- Student assessment of instruction
- Graduation rates
- Proficiency exams
- Clinical evaluations

The course pass rate goal for MCO is 94% of courses passed, and we consistently meet or exceed that goal. The student assessments relate particularly to their evaluation of their fourth year externship rotation sites. The goal is 95% satisfaction with their sites, and MCO consistently meets that goal. As far as graduation is concerned, in 2009 34 of 35 students who entered the program in 2005 graduated and in 2010 36 of the 36 students who entered in 2006 graduated. MCO students consistently have 100% pass rate on their pre-clinical proficiency examinations. The goal for clinical evaluations is for students to achieve no lower than a 3 on the clinic grading rubric in any category. Over the past two years of monitoring, 1005 of the student interns have achieved this goal.

Also included in the appendix is the document detailing the attributes desired of graduates of an optometry program. MCO has adopted this list of attributes and utilizes them as measures of program outcomes. In addition, MCO has developed a very detailed listing of outcomes associated with each objective related to our mission and goals. This specific document is also in the appendix.

One major source of feedback on student learning is their performance on national board exams. These are high stakes tests, as they are required to be passed to obtain licensure to practice. Therefore, they are a critical measure of the ultimate success of the students in the program. As previously stated, MCO's students fairly consistently perform above the national average on these tests as evidenced below.

Michigan College of Optometry - NBEO Examination Pass Rates

Part I: Applied Basic Science (2009 on; previously Basic Science), first time taker

Year	MCO Pass Rate (pass/class size)	National Pass Rate	Difference
2011	88.9% (32/36)	72%	+16.9%
2010	97% (32/33)	85.1%	+ 11.9%
2009	94.6% (35/37)	87.33%	+7.36%
2008	Not offered	--	--
2007	94.1% (32/34)	74.8%	+19.3%
2006	73.0% (21/29)	77.4%	-4.4%
2005	78.0% (26/33)	71.6%	+6.4%
2004	82.4% (28/34)	67.4%	+15.0%

Part II: Patient Assessment and Management (2009 on; previously Clinical Science), first time taker

Year	MCO Pass Rate (pass/class size)	National Pass Rate	Difference
2010	100% (33/33)	95.2%	+ 4.8%
2009	97.37% (37/38)	90.6%	+6.76%
2008	94.1% (32/34)	89.6%	+4.5%
2007	92.9% (27/29)	91.5%	+1.4%
2006	88.0% (29/33)	88.7%	-0.7%
2005	93.9% (31/33)	91.7%	+2.2%
2004	94.0% (29/31)	91.2%	+2.8%

Part III: Clinical Skills Exam, first time taker

Year	MCO Pass Rate (pass/class size)	National Pass Rate	Difference

2010	100% (38/38)	97.88%	+ 2.12%
2009	100% (34/34)	94%	+ 6%
2008	96.6% (28/29)	91.28%	+5.32%
2007	100.0% (33/33)	96.0%	+4.0%
2006	85.0% (28/34)	93.0%	-8.0%
2005	100.0% (31/31)	90.3%	+9.7%
2004	97% (31/32)	94.0%	+3.0%

The faculty analyze subsection Z-scores to evaluate the need for minor curricular modifications indicated by trends in performance over time.

DEGREE PROGRAM COST AND PRODUCTIVITY DATA

Institutional data on degree program costs are fraught with inconsistencies, and the most recent published data are from the 2007-08 academic year. These data indicate that the total costs of the O.D. program at MCO were \$584/SCH. This placed this program as the second most costly at the University at the time.

The productivity report shows the following for MCO:

<u>Year</u>	<u>Student Credit Hours</u>			<u>Full Time Equated Faculty</u>			<u>SCH/FTEF</u>
	Summer	Fall	Spring	Summer	Fall	Spring	
2005-06	476	2145	2343	11.75	16.65	16.74	268.85
2006-07	448	2459	2432	11.75	17.60	19.26	265.42
2007-08	838	2572	2446	15.01	19.36	20.20	253.71
2008-09	1056	2625	2537	16.51	19.55	20.41	258.33
2009-10	1042	2605	2517	17.01	19.56	19.74	260.71

A doctoral level program in a health care field is of necessity faculty intensive in course delivery, particularly during the laboratory and clinical education components of the curriculum. As a result, the credit hours per faculty member will be lower for this program than other programs on campus, especially high volume baccalaureate degree

programs. Add to this the fact that the average workload for doctoral level courses is less than for undergraduate courses, and the credit hour productivity will be lowered further. Similarly, the faculty costs per student credit hour will also be higher than average. This is to be expected for a program of this nature.

ADMINISTRATIVE EFFECTIVENESS

MCO has been functioning for over a year with reduced personnel levels in clinical staff and short one administrator due to ERIPs offered by the University last year. These positions are in the process of being filled, so the stress on the overworked employees will be lessened in the foreseeable future.

That said, there will remain a significant administrative load that is either not getting done or is assigned to faculty who are given reassigned responsibilities. MCO's costs for faculty reassignment are above average, but many of these activities are not optional if MCO is to accomplish its mission. The list of these responsibilities is in the appendix and was referenced in the section discussing workload.

There appear to be no issues with the scheduling of classes and clinic assignments. Faculty desires are accommodated whenever it is reasonably possible. Schedules are prepared well enough in advance so that faculty have plenty of time to prepare.

In this type of program, availability of courses for students is never a question. One drawback to this lock-step curriculum is that, if a student should happen to fail a course, and are readmitted on appeal, they must wait until the next academic year for the course to be offered again.

Section 4: FACILITIES AND EQUIPMENT

This section seeks to examine if the new facility housing the Michigan College of Optometry (MCO), inclusive of all its equipment and resources, helps fulfill the mission of the college and in achieving the following specific MCO goals and objectives -

- 5. Providing a facility and work environment that facilitates fulfillment of the mission*
 - 5.B Maintaining equipment as funding becomes available to provide a state-of-the-art clinical and patient care education environment*
 - 5.D Attaining and maintaining ACOE accreditation standard 3 and 7 pertaining to facilities, equipment and resources*
- 2. Recruiting, admitting and retaining highly qualified and diverse students*
- 3. Recruiting and retaining a highly qualified and diverse faculty*
 - 3.B Developing faculty by encouraging service and innovation in academic and clinical education and scholarly activity*
- 4. Providing high quality patient care and clinical education in all clinical facilities and locations*
 - 4.A Continuing to evaluate and incorporate appropriate technology in the clinic*
 - 4.G Enhancing interdisciplinary and inter-professional collaboration*

HISTORY - PENNOCK HALL

The history of the Michigan College of Optometry includes Pennock Hall, originally built in 1968 to serve as a dormitory for FSU students. Pennock Hall served as an extended "temporary" home for the academic, administrative and clinical facilities of MCO from 1977 to December, 2010.

Pennock Hall, with a square footage of approximately 45,000, had 6 floors. The first floor comprised mostly of lecture halls, the second and third floors comprised of laboratory spaces and faculty offices, the fourth floor comprised of administrative and faculty offices and the fifth and sixth floors housed the clinic.

Due to the fact that Pennock Hall was originally built to serve as a residence hall, it did not adequately meet the needs of an ever growing professional optometry program.

The University Eye Clinic, located on the 5th and 6th floors was served by two elevators that frequently malfunctioned. This was a great inconvenience especially to elderly patients as well as those with physical disabilities and in wheelchairs. The clinic appearance did not justify the superior quality of vision care offered to patients.

Despite partial renovations in 1998, the building was in poor condition and deteriorating over time. These concerns were expressed by the accreditation board during its 2004 site visit. First, the building had issues with maintenance of temperature control which, at the very least, created an uncomfortable work environment for students and faculty. There were numerous exposed pipes throughout the building that frequently leaked, at

times damaging equipment and destroying important paperwork. Other problems included those of poor lighting and plumbing. Furthermore, maintenance and repair of the building was expensive. The age and condition of the building and its complete lack of aesthetic appeal, negatively impacted the recruitment of highly qualified students and faculty to the program. It became apparent that the condition of Pennock Hall posed a serious problem for the continued accreditation of the optometry program and that a brand new facility was required.

THE MICHIGAN COLLEGE OF OPTOMETRY BUILDING AND CENTER FOR COLLABORATIVE HEALTH CARE EDUCATION

OVERVIEW - The MCO Building Project was officially completed on January 3, 2011 and is the first facility at Ferris State to be LEED (Leadership in Energy and Environmental Design) certified. The Michigan College of Optometry officially relocated to its new address on 1124 S. State Street, Big Rapids, 49307 in January, 2011. The overall square footage of the new facility is 86,104, a 91% increase in square footage. The new facility has three levels. The first (ground) floor houses the optometry clinic. The second floor includes two lecture halls (capacity 48, each), an auditorium (capacity 78), two seminar rooms, four research labs, a student computer lab, SVOSH room and the optometric library. The second floor also holds administrative, faculty and staff offices and a large atrium. The third floor is comprised of the following fully equipped laboratories – clinic procedures (pre-clinic), optics/contact lens, anatomy & physiology/pediatrics and vision science, two seminar rooms and the student lounge. The floor plans are included in the appendix. The new MCO facility has significantly higher aesthetic appeal in comparison to Pennock Hall.

Furthermore, the location of the new facility housing the Michigan College of Optometry, in close proximity to the Colleges of Pharmacy and Allied Health Sciences, has created an educational synergy within the health sciences at Ferris State University. Additionally, it has greater visibility to the public and is more a part of the central FSU campus.

PATIENT CARE

The University Eye Center (UEC) located on the ground floor is a well designed, modern facility and comes with state-of-the-art equipment and technologies. It includes 30 exam lanes, compartmentalized into the Primary Care/Contact Lens, Pediatrics and Low Vision/Medical-Surgical modules. The expanded infrastructure incorporates a higher number of eye lanes within each module. Furthermore, the new clinical facility has dedicated spaces for specialty testing. These include vision therapy (VT), visual information processing assessment (VIPA), reading therapy, occupational vision testing, electrophysiological testing and low vision examinations. The VT and VIPA rooms are designed with two way mirrors and have an attached waiting area. This feature allows parents to watch their child from the waiting area without creating unnecessary distractions. The low vision exams lanes are 20 feet in length. The low vision clinic also

includes a Vision Rehabilitation Home Environment room equipped with a dishwasher, washing machine and dryer. This is an invaluable resource for patients with visual impairments and is likely to have continued and increased use in the coming years.

The clinic includes a large optical dispensary which carries a vast selection of frames (over 750) ranging from economy lines to high-end designers. Student interns receive practical hands-on training in fitting and dispensing optical devices at the dispensary. The new building is located in the corner of State Street and Ferris Drive and is easily identifiable and accessible (including handicap access). There are adequate patient parking spaces including handicap parking. In general, the clinic entrance and patient parking are well maintained and have adequate lighting. Although, directions to the University Eye Center are stated clearly on the MCO website, a more prominent signage is required to direct patients to the clinic parking lot. Information pertaining to the hours of operation and after hours should be posted on the clinic entrance doors. The large patient waiting area includes two LCD monitors that serve as customizable digital signage displays. At present, the digital signage plays interviews with faculty and administrators. Potential future uses of this type of technology would be as a patient education tool and for marketing the program and profession to the general public. The separate pediatric waiting area is 'kid-friendly'. Overall, waiting areas in the clinic are pleasant, clean and well maintained and can accommodate a higher patient volume than was previously possible.

All the above stated factors have contributed towards increases in patient encounters and clinic generated revenues. First, patient appointments were about 64% higher in May, 2011 in comparison to May, 2010. There has been a 2.41% increase in patient appointments for the 2011 fiscal year over FY 2010 (appendix). It is hoped that annual patient encounters in the new clinic will increase by approximately 5,000 over the current estimate of 19,450. Further evidence comes from clinic revenue data for the FY 2011. The revenue generated in May, 2011 alone was about 34.5% higher than that for the same month last year. Additionally, the total revenue generated this year (January to June) is about \$68,000 (10.5%) higher in comparison to the current month in the year 2010. Cumulative clinic revenues per day as well as per patient for the months January to June, 2011 were significantly higher than that in 2010 (appendices).

Despite apparent increases in patient volume and clinic revenues, a continuous challenge faced by the college is the underutilization of its clinical facilities. Student interns frequently complain that they feel under challenged due to insufficient patient encounters at the UEC at MCO. Student dissatisfaction was also reflected in the recently conducted student surveys where only 63.1% of the respondents rated the quality of clinical care opportunities at MCO as very good or excellent. The college of optometry is currently developing aggressive long and short term marketing strategies for its clinic facilities and for purposes of enhancing patient recruitment.

EQUIPMENT

All clinic exam lanes are equipped with brand new equipment including desktop computers, phoropters, keratometers, slit lamps and examination chairs. The total amount spent on new ophthalmic equipment as of January, 2011 is \$2,600,773.77. Clinical and laboratory items in the MCO inventory deemed in good condition were moved to the new facility. All exam lanes include state-of-the-art equipment and technology, some that were not available at the UEC at Pennock Hall. These are summarized below:

Computerized Vision Charts: Each eye lane has the MiraMed 2020 Visual Acuity Software. This software offers many advantages over conventional visual acuity charts that were used at the UEC (Pennock Hall), including its vast selection of tests, ease of use, customizability and affordability.

Slit Lamp Digital Imaging Systems: Current eye lanes have the Marco Idoc, an integrated digital ophthalmic camera that is linked to slit lamp. The Idoc captures a digital image of the eye which can then be displayed on the computer monitor. Additionally, it can stream live videos. This serves as a great teaching tool as opposed to the conventional teaching tube that was used in most exam lanes at Pennock. Additionally, Idoc allows clinicians and student interns to educate their patients about their ocular health but capturing a digital image of their eye and displaying that on a computer monitor. This was not possible previously. The digital imaging system is not just an educational tool for students and patients; it also can be utilized for student and patient recruitment.

The entrance to any module is equipped with the Marco M3, an autorefractor, autokeratometer and non-contact tonometer combination unit. This allows for quick estimation of refractive errors, corneal curvature and intra-ocular pressure readings. Additionally, the compact combination unit saves considerable space.

Optos technologies: The Optomap provides a non-invasive, widefield (approximately 200⁰) capture of a digital image of the retina. This technology was available at UEC, Pennock Hall. It serves as a good patient education tool and ultimately leads to better patient retention and patient recruitment.

The Ocutouch software has several programs that provide patient education through animations, narratives and illustrations. It can be accessed in any exam lane on the computer. This type of technology is invaluable especially on occasions where the patient is waiting for a procedure or when the student intern leaves exam lane to consult with the doctor or preceptor.

While housed in Pennock Hall, faculty and administrators of MCO put in considerable efforts to acquire funds for procuring clinical and laboratory equipment. This was done through written grants, appealing to manufacturers for donations, tapping into alternate sources such as faculty development funds etc. These efforts resulted in 'one-time' funds that allowed the college to purchase and maintain new equipment for its academic and clinical facilities. However, as discussed in the 2004 Program Review Report, the college has lacked a systematic budgeting plan for maintenance and

replacement of equipment. Presently, prioritization of necessary clinical and teaching equipment not yet acquired is ongoing, as remaining project funds are insufficient to match the demand for instrumentation needed to complete the college's needs.

ELECTRONIC HEALTH/MEDICAL RECORDS

It is imperative that MCO adopt and begin utilizing an electronic records system in the very near future. Federal monetary incentives will begin disappearing, and MCO will have missed an opportunity to recoup some of the investment that the implementation of such a system will entail. Beyond that, an up-to-date clinical optometric education is incomplete if it does not have an electronic records component.

MCO has had an internal committee investigating the various software products available for optometric practice and clinic use for 3 or 4 years. We have been close to deciding on a system to implement, only to hear horror stories from other colleges of optometry who were trying to use those programs. The robust systems that can handle all the requirements of an optometric clinic with the numbers of doctors and interns MCO has are few, and costly.

In conversations with the Provost regarding cost, the suggestion was offered that all parties on campus who would benefit from electronic health information systems, including pharmacy, nursing, the health center, etc., should form a committee and search for a system that could be shared by all, hopefully reducing the overall cost to the University. That group has made little headway to date. Additional consideration, beyond the initial investment cost of the chosen system, will be ongoing costs, both in terms of annual licensing agreements and the tech support personnel that will need to be assigned to keep the system operational.

CURRENT CLASSROOM AND LABORATORY TECHNOLOGIES AND SOFTWARE

The Michigan College of Optometry has significantly increased the integration of state-of-the-art classroom technologies and software into its teaching and learning environment. The expansion of the MCO technological infrastructure has been very well received by students and faculty alike. This is evidenced by the fact that on student and faculty surveys, 100% of student respondents and a large percentage of faculty gave positive ratings to the quality of 'optometric technologies' incorporated into the new facility.

A downside to technological advancement has been the increased demand for IT/TAC support and services which is not always immediately available to faculty. Additionally, new software and hardware are likely to require upgrades on a routine basis which may pose a financial challenge to the college in the future.

Current Classroom and Laboratory technologies and software include -
SMART Podiums: All classrooms and laboratories are equipped with SMART podiums.

Classroom Performance System (CPS): Currently 9 spaces are equipped with CPS receivers. These include 3 classrooms (MCO 210, 211, 212), Computer Lab (MCO 213) and 5 laboratories (MCO 301, 307, 311, 315 & 331). The CPS technology is being actively used in many courses for in-class assessment and to facilitate student interaction and participation during lecture hours. Faculty are now able to engage a much larger group of students than was previously possible. Additionally, MCO faculty use CPS to administer and score exams with greater ease.

Tegrity Lecture Capture System (Tegrity Campus 2.0) technology has allowed instructors to record in-class lectures, faculty presentations and guest lectures. Tegrity is being actively used at the college and has been utilized as an effective tool for study and review by students. Currently eight spaces are "Tegrity ready" and each is equipped with a camera and/or microphone that work in conjunction with the Tegrity software.

The WebCT course management software is used by faculty as well as on and off campus interns as a means to enhance communication, facilitate discussions and to provide feedback.

INTERDISCIPLINARY AND INTERPROFESSIONAL COLLABORATION

In the recent past, the Michigan College of Optometry has been recognized for its work in interdisciplinary health care. Examples include the Interprofessional Wellness Clinic developed at the College of Optometry in collaboration with the Colleges of Pharmacy and Allied Health Sciences and the 'Reading Room' developed at MCO in collaboration with the College of Education. The new clinical facility at MCO has dedicated spaces for continuation and facilitation of these efforts. Additionally, the new academic facility is conducive to the institution of courses and laboratories that involve the participation of faculty and students of colleges of Pharmacy and Allied Health Sciences, for example, general pharmacology. Finally, the classroom, clinic and laboratory spaces are available for use by the Colleges of Pharmacy and Allied Health. Over the years, the facilities housing these colleges have suffered from overcrowding and deteriorating conditions.

RECRUITMENT OF QUALIFIED STUDENTS AND FACULTY

There is much competition nationwide amongst the various schools and colleges of optometry including the Michigan College of Optometry, to recruit the most qualified students and faculty. With the sudden rise in the number of schools and colleges of optometry in the recent years, this competition has only increased. The condition and unattractive appearance of Pennock Hall was a major impediment to these efforts and historically the college lost many potentially qualified students and faculty to other schools and colleges of optometry. A brand new, state-of-the-art facility in conjunction with its aesthetic appeal is now a tremendous selling point for the program and will definitely impress both highly qualified students and faculty alike.

RESEARCH

Although MCO is not best known as a research school, a small percentage of faculty within the college are engaged in clinical and basic science research. There are

currently four spaces on the second floor of the building that are designed for use as research laboratories. One of the four laboratories used by a faculty member actively engaged in research is twice the size of a regular faculty office. The other three spaces have the square footage of faculty offices. The availability of research spaces is conducive to promoting research and faculty development through scholarly activity.

INFORMATIONAL SERVICES AND RESOURCES:

MCO Library: The MCO library is located on the second floor of the building and includes a limited collection of optometric journals, textbooks and student senior research projects. It includes areas for student study and contemplation.

MCO Computer Lab: The MCO student computer lab has 26 workstations. It is fully automated and students have access to the FLITE network.

FLITE Library: The FLITE is a state-of-the-art facility built in the year 2001 and is an important resource of clinical and research information and technology for students and faculty at MCO.

Database Access: FLITE's databases are available to all current MCO students, faculty and staff. About 25 Health Science and Medical databases can be accessed through the FLITE Online Catalog. The list of databases available online includes but is not limited to PubMed, Visionet, Medline, ScienceDirect, VisionCite, Health Sciences, Health Reference Center, Health and Wellness Resource Center, Access Medicine, Access Pharmacy, CINAHL (Cumulative Index for Nursing and Allied Health Literature), Drug Facts and Comparisons, Cochrane Library, STAT!Ref., Dietary Supplements Labels Database, Drug Information Portal, Electronic Orange Book, History of Science, Technology and Medicine, IDIS (Iowa Drug Information Services), International Pharmaceutical Abstracts, Lexi-Comp Online, Lexis-Nexis Academic Universe, Micromedex and Natural Medicines Comprehensive Database. Additionally, FLITE's online catalog includes databases in the areas of social science, education, law, psychology and technology. Most of the databases can be accessed both on and off-campus by current students, faculty and staff. Several databases contain Full Text articles that can be downloaded, e-mailed or printed. In addition, FLITE offers the Document Delivery & ILL (Inter Library Loan) services. Document delivery is a free service through which books and journal articles owned by FLITE are mailed free of charge to all current Ferris distance students and faculty. ILL is also a free service by which articles or books not owned by FLITE are obtained and made available to current Ferris students and faculty. Most MCO students and faculty have utilized these services effectively.

FLITE LIAISON PROGRAM: The Liaison Program at Ferris State provides a faculty librarian that serves as a primary contact person between an academic program and the library. The purpose of this appointment is to provide faculty and students with a contact to whom all questions or issues pertaining to the library may be addressed. Maureen Watson served this role at MCO from 1987 up until her retirement in 2010. The Michigan College of Optometry currently does not have a library liaison person. Maureen Watson's services included the following: A library orientation program for first year optometry students which included instructions for use of electronic mail and health science databases, providing assistance and instruction to second year students

about the use of the Visionet and Medline databases, and providing assistance with literature search and facilitating access to journal articles for fourth year optometry students towards completion of their research papers (OPTM 817).

Other Services (FLITE) –

FLITE has been able, through available funding, to maintain a good selection of texts in the vision and optometry areas and has continued to update the collection with current acquisitions.

Research Assistance: The Reference and Instructional Services (RIS) provides assistance with general and research related information to all current faculty, students and staff

Adaptive Technologies Lab: This was developed in conjunction with the office of disability services and is designed to assist students and other library users with disabilities. The adaptive technologies lab includes assistive software and equipment such as height adjustable tables, Braille work stations and 21 inch computer monitors.

Media Production: The Media Production Services provides 'assistance to faculty, staff and students in the design, development, implementation, and distribution of media-related resources in support of Ferris instruction and activities'.

SURVEY REPORTS

Student and faculty surveys have served as useful outcome measures in the self study process.

STUDENT SURVEY -

Recently, a survey was mailed electronically to MCO students. Four items within the survey are pertinent to this report –

- Quality of clinical care opportunities at MCO
- Quality of clinical equipment and technology at MCO
- Quality of classroom/lab equipment and technology at MCO
- Quality of the library at MCO

Of the 140 students mailed, 65 students (46%) responded. As mentioned earlier, 100% of student respondents gave positive ratings (Good, Very Good or Excellent) to the quality of clinical equipment and technology at MCO, with over 70% rating them as Excellent. The response to the quality of classroom/lab equipment and technology was similar in that 100% of student respondents rated the quality of /lab equipment and technology at MCO as Good, Very Good or Excellent, with about 70% rating them as Excellent.

In response to the quality of clinical care opportunities at MCO, only 63.1% of student responded with ratings of Very Good or Excellent, with only 30.8% rating them Excellent. The disparity in ratings between Items 1 & 2 (above) stems, at least in part, from a dearth of patient encounters at the MCO-UEC and an underutilization of the clinical facilities.

Students were far less pleased with the quality of the MCO library, with only 13.9% rating it as Very Good or Excellent. However, when asked about the ability to find

clinical reference materials to aid in diagnosis/treatment about 61.5% of respondents gave positive ratings (Very Good or Excellent). Clearly, the MCO library is an underutilized resource for finding reference materials. Students most likely rely on medical websites and electronic search engines.

FACULTY SURVEY -

The faculty survey included the following item pertinent to this report – “MCO is successful in providing up-to-date clinical optometric care for its patients”. This item was deemed important because the quality of clinical care afforded to patients depends not just on the competency of the clinician but also on the availability of state-of-the art clinical facility and equipment. An overwhelming majority (93.3%) strongly agreed that MCO was successful in providing quality patient care, which indirectly reflects their perception of the clinic facilities and technologies.

As a more direct measure, a number of faculty responded with positive comments about the new MCO academic and clinic facilities perceiving these as strengths of the program.

Overall the Michigan College of Optometry academic and clinical facilities adequately support various facets of the professional program, residency programs, patient care and research. Some of this impression is based on the pending availability of additional furnishings and equipment, some of which is in jeopardy because of the lack of remaining project funds. The college has adequate support facilities in the FLITE and MCO libraries and computer centers. It is anticipated that the new facility will help facilitate efforts to attract and retain qualified students and faculty. Although, there is some evidence of increases in patient volume and in clinic generated revenues the college needs put in a concerted effort in developing long and short term clinic marketing strategies so its clinical facilities are utilized optimally. Additionally, with an expansion of technological infrastructure there is greater demand now for IT/TAC support services. This demand will be heightened when an electronic health records system is implemented.

Section 5: CONCLUSIONS

A. RELATIONSHIP TO FSU MISSION

The mission, goals, and objectives of the Michigan College of Optometry are in very good alignment with the mission of Ferris State University. The Michigan College of Optometry regularly evaluates the relevance of its mission, goals, and objectives, including their alignment with those of the office of academic affairs and Ferris State University.

B. PROGRAM VISIBILITY AND DISTINCTIVENESS

As the only optometry program in the state, MCO is obviously distinctive. Within FSU, MCO is distinct as it is the campus' only doctoral level health profession with diagnostic and prescribing capabilities.

Particularly in its new location, MCO is also highly physically visible. The University Eye Center contributes to the high visibility of MCO locally and regionally, the faculty and staff through their involvement in University and area activities and events contribute to the College's visibility, as do the MCO students through their active participation in groups and events.

MCO presently has an active committee investigating appropriate marketing strategies particularly for increasing the visibility and attractiveness of the program to highly qualified prospective students and of the University Eye Center to prospective patients.

C. PROGRAM VALUE

The presence of MCO on the FSU campus enhances the University, and the degree program provides significant value to the students enrolled.

D. ENROLLMENT

Enrollment of students in MCO is set at a fixed and controlled number. Historically, the entering class size has been increased from 34, where it had been since 2000, to 36 in 2005 and to 38 in 2010 and 2011.

The demand on the national applicant pool of prospective optometry students has increased significantly in the past 5 years, while the size of the applicant pool is stable. This is a significant challenge to future student recruitment for MCO and all optometry school competitors for the most qualified applicants. Any advantage that can be gained needs to be seized. MCO currently is very attractive to prospective students from the standpoint of small class size and state-of-the-art facilities, but suffers in high tuition costs, a perception of clinical inadequacies, and little scholarship monies.

The admissions committee will be working on a strategy to increase the level of applicants' awareness of the substantial clinical opportunities available at MCO when they are here for their interview.

E. CHARACTERISTICS, QUALITY AND EMPLOYABILITY OF STUDENTS

MCO has continued to attract students with very good academic credentials and clinical aptitudes. Following graduation, the new graduates are highly successful at obtaining licensure to practice, competing for residencies, and in finding acceptable practices in which to work.

F. QUALITY OF CURRICULUM AND INSTRUCTION

The current curriculum in the doctor of optometry program is the result of ongoing monitoring by the faculty to assure contemporary relevance and the appropriate level of preparation for the entry-level practice of optometry upon graduation. The faculty is satisfied with the curriculum as it exists, but recognizes the need for ongoing review. Concerns about curricular issues will be referred to the college curriculum committee. MCO has met completely the recommendations from the most recent accreditation site visit.

Overall, the students are satisfied with the quality of instruction, both didactic and clinical, that they receive at MCO. Alumni also report general satisfaction with their level of preparedness upon graduation.

There is a significant level of concern among faculty over their ability to continue to deliver quality instruction and meet their other professional obligations in the areas of service and scholarly activity, as well as assigned administrative duties. There is also concern over our ability to complete the acquisition of equipment needed to make the clinical and educational facility truly state-of-the-art.

G. COMPOSITION AND QUALITY OF THE FACULTY

The current MCO faculty has the necessary balance of specialty training and interest to deliver a quality didactic curriculum and clinical education to the MCO student body. There will be over the next 3 to 5 years a significantly increased level of competition for quality faculty nationwide among optometry programs. MCO's reputation as a collegial and friendly place to work, coupled with our new facility, should help in attracting faculty applicants when vacancies or new positions arise.

APPENDIX

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ATTRIBUTES OF STUDENTS GRADUATING FROM SCHOOLS AND COLLEGES OF OPTOMETRY

An Association of Schools and Colleges of Optometry Report

Accepted by the Board of Directors:
20 June 2000

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Doctors of Optometry *(American Optometric Association 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.

Optometry - A Responsible Profession

Summit on Optometric Education
Scope of Optometric Practice (1992)

Endorsed by the
American Optometric Association (1996)
and
The Association of Schools and Colleges of Optometry (1996)

The profession of optometry fulfills the vision and eye care needs of the public through clinical care, research and education, all of which enhance the quality of life.

The scope of optometric knowledge and practice includes the prevention, examination and evaluation, diagnosis, rehabilitation, treatment and management of disorders, dysfunctions and diseases of the visual system, the eye and associated structures; and the evaluation and diagnosis of related systemic conditions.

Optometric practice is dynamic, with the emphasis on patient care services at the general practice level. Responding to the changing needs of society, the profession must have access to all methods and modalities of contemporary practice.

Entry-level competencies include the professional attitudes, skills and knowledge to ensure safe and effective patient care outcomes and to support life-long learning. The maintenance of continuing competencies and professional growth must be ensured by continuing learning and assessment and thereby it sustains the integrity of professional licensure. Additional education and training provide advanced practice skills and knowledge in specialized areas beyond those requisite at entry.

Attributes of the Graduating Student from Schools and Colleges of Optometry

Over the past decade the profession has moved towards a better delineation of the scope and role of optometry within the broader health care system. A key element of this process has been the elucidation of entry-level competency, or in the case of Doctor of Optometry degree programs - the exit competencies needed for a new optometrist beginning in general practice.

This report, "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.

Background

Over the past several years, the Association of Schools and Colleges of Optometry (ASCO), with the support and participation of the American Optometric Association (AOA), has worked to develop a clearer understanding of entry-level competency and/or the competencies expected of students graduating from optometry degree programs in the United States. The purpose of the effort has been to provide a nationally accepted statement of common goals for Doctor of Optometry degree programs. With the development of a common set of competency statements, the curricula of optometry's schools and colleges will be more clearly understood in terms of purpose, content and outcomes expectations.

The impetus behind this effort may be traced to an increasing need to effectively communicate the goals and nature of optometric education to the public, the health care industry and government agencies, as well as changing expectations in the accreditation process. Similarly, there has been a need for schools and colleges of optometry to better understand the changing nature of the health care environment and to adapt their curricula to the changing realities of optometric practice.

In October 1998, the Association of Schools and Colleges of Optometry formed a Committee on Attributes to define the attributes of graduating students. The creation of this Committee followed the acceptance of the ASCO white-paper, " A Model for Entry-Level Determination (MELD)." The model drew from several conferences and the efforts of a number of organizations to establish a process, which would guide the development of professional competency statements, particularly as they related to entry-level practice. With the acceptance of the white paper, the process for determining the broad attributes of students graduating from the nation's schools and colleges of optometry was established.

The Committee on Attributes was composed of five chief academic officers of schools or colleges of optometry. After an assessment of efforts among other health care professions, the committee chose to organize the attributes within three categories: Knowledge, Skills and Professionalism. Each of the five Committee members worked independently with their faculty to develop draft statements. These were then merged, reviewed as a first draft and subsequently shared with the chief academic officers of the schools and colleges of optometry. The resulting document was then referred to all Schools and Colleges of Optometry for review and comment, and subsequently to other optometric organizations for external review and comment. The final report was presented to the ASCO Board of Directors on 20 June 2000.

Assumptions:

The attributes expected of the new graduate reflect a body of knowledge, skills and professional attitudes at one point in 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 state laws, the nature of the educational process, the structure of the profession, health care policies, the economy, and technology, to name but a few. In addition to applying the decision rules developed in the MELD report, it is

important to define the environmental assumptions used at the time the attributes were defined.

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. However, the level at which the condition is managed is expected to differ from entry-level following practice experience or supplemental education.
- 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 consultation, co-management and referral in securing the best possible care for their patients.
- expected to commit themselves 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, which is four years in duration.
- 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.

THE NEW DOCTOR OF OPTOMETRY MUST BE PROFESSIONAL & 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:

Personal attributes

- A commitment to life-long learning and providing the highest standard of care.
- The ability to incorporate ethical principles into decisions affecting patient care and the practice of optometry.
- 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 and application of professional ethics and standards in the practice of optometry, always keeping 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.
- Professionalism in understanding the challenges to the optometric profession posed by potential conflicts of interest inherent in health care delivery.
- A commitment to be actively involved in organized optometry and the community.

THE NEW OPTOMETRIST 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 body systems, with special emphasis on the ocular and visual system and their interrelationships to the body as a whole.
- 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 actions of the various classes of pharmaceutical agents. Their interactions and their safe and effective use for the treatment of disease and conditions affecting the eye and visual system.
- The structures and processes contributing to the development of refractive error and other optical and perceptual abnormalities of the visual system.
- 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.
- Visual development and vision function with respect to deviation and enhancement such as, but not limited to, strabismus, amblyopia, oculomotor, accommodation, and visual perception.
- Vision therapy and other rehabilitative methods used for the management of common visual disorders.
- The psychosocial dynamics of the doctor/patient relationship and an understanding of the social, psychological, and economic forces affecting diverse patient populations.
- Practice management structures and strategies as they pertain to the various practice settings.
- The critical elements of verbal and written communications and, clear and appropriate documentation of patient encounters.

THE NEW OPTOMETRIST MUST BE SKILLFUL

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 which 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 and ocular diseases, including or resulting from:
 - refractive anomalies
 - abnormalities of accommodation
 - abnormalities of 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 synthesize the data to formulate and execute effective management plans.
- The ability to prescribe and/or use ophthalmic materials, contact lenses, vision therapy, low vision systems, pharmaceuticals, and certain surgical procedures, to treat and otherwise manage common vision disorders and disease.
- The ability to recognize and initiate the coordination of care for patients requiring advanced medical or specialty care.
- The ability to recognize life threatening conditions and to initiate intervention.
- Effective communication skills, both orally and in writing, as appropriate for maximizing successful patient care outcomes.
- The ability to realistically assess personal competencies and limitations.
- The ability to appropriately use all resources including the use of ancillary personnel, intra- and inter-professional consultation, co-management and referral in ensuring the best quality patient care.
- The ability to access 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.

Schools and Colleges of Optometry Profile of 2010 Entering Class

Please note that for all institutions, figures for tuition and fees include mandatory billable fees, and not books, supplies, or instruments. OptomCAS (centralized application service) application fee information can be found at www.optomcas.org. Fees listed below are supplemental.

Illinois College of Optometry

Supplemental Application Fee \$50
Supplemental Application Deadline 3/1
Overall Average GPA 3.41
Academic Average OAT 321
Total Science Average OAT 327
Applied/Accepted/Enrolled 1254/359/161
Resident Applied/Accepted/Enrolled 125/63/48
Non-Resident Applied/Accepted/Enrolled 1129/296/113
Tuition/Fees (Res/Non) \$31,660/\$31,660
Last OAT 3/1
Requires Bachelors Preferred
% Matriculants with Bachelors 96%
Males/Females 57/104
States 26 + Canada and other countries

Indiana University School of Optometry

Supplemental Application Fee \$55
Supplemental Application Deadline 2/28
Overall Average GPA 3.48
Academic Average OAT 317
Total Science Average OAT 319
Applied/Accepted/Enrolled 556/151/80
Resident Applied/Accepted/Enrolled 52/35/30
Non-Resident Applied/Accepted/Enrolled 504/116/50
Tuition/Fees (Res/Non) \$20,363/\$34,558
Last OAT 2/28
Requires Bachelors No
% Matriculants with Bachelors 98%
Males/Females 36/44
States 22 + Canada

Inter American University of Puerto Rico School of Optometry

Supplemental Application Fee \$31
Supplemental Application Deadline 5/15
Overall Average GPA 2.88
Academic Average OAT 298
Total Science Average OAT 292
Applied/Accepted/Enrolled 263/135/48
Resident Applied/Accepted/Enrolled 7/2/1
Non-Resident Applied/Accepted/Enrolled 256/133/47
Tuition/Fees (Res/Non) \$25,500/\$25,500
Last OAT 5/15
Requires Bachelors No
% Matriculants with Bachelors 89%
Males/Females 18/30
States 20 + Canada

Michigan College of Optometry at Ferris State University

Supplemental Application Fee no supplemental application
Supplemental Application Deadline -----
Overall Average GPA 3.60
Academic Average OAT 325
Total Science Average OAT 327
Applied/Accepted/Enrolled 489/68/37
Resident Applied/Accepted/Enrolled 86/44/29
Non-Resident Applied/Accepted/Enrolled 403/24/8
Tuition/Fees (Res/Non) \$23,844/\$35,766
Last OAT 3/1
Requires Bachelors Preferred
% Matriculants with Bachelors 81%
Males/Females 20/17
States 5 + Canada

Midwestern University, Arizona College of Optometry

Supplemental Application Fee no supplemental app. beginning fall 2012
Supplemental Application Deadline -----
Overall Average GPA 3.23
Academic Average OAT 318
Total Science Average OAT 323
Applied/Accepted/Enrolled 662/105/51
Resident Applied/Accepted/Enrolled 19/5/5
Non-Resident Applied/Accepted/Enrolled 643/100/46
Tuition/Fees (Res/Non) \$30,319/\$30,319
Last OAT 4/30
Requires Bachelors Yes
% Matriculants with Bachelors 100%
Males/Females 33/18
States 22

The New England College of Optometry

Supplemental Application Fee \$45
Supplemental Application Deadline 3/1
Overall Average GPA 3.29
Academic Average OAT 335
Total Science Average OAT 331
Applied/Accepted/Enrolled 889/253/115
Resident Applied/Accepted/Enrolled 34/NA/11
Non-Resident Applied/Accepted/Enrolled 855/NA/106
Tuition/Fees (Res/Non) \$34,814/\$34,814
Last OAT 3/31
Requires Bachelors Preferred
% Matriculants with Bachelors 92%
Males/Females 25/92
States 22 + Canada, China, Trinidad, UK, Korea

Northeastern State University College of Optometry

Supplemental Application Fee \$45
Supplemental Application Deadline 2/1
Overall Average GPA 3.49
Academic Average OAT 312
Total Science Average OAT 313
Applied/Accepted/Enrolled 127/40/28
Resident Applied/Accepted/Enrolled 22/13/13

Non-Resident Applied/Accepted/Enrolled 105/27/15
Tuition/Fees (Res/Non) \$12,600/\$25,305
Last OAT 2/1
Requires Bachelors Preferred
% Matriculants with Bachelors 100%
Males/Females 12/16
States 7

Nova Southeastern University College of Optometry

Supplemental Application Fee \$50
Supplemental Application Deadline 4/15
Overall Average GPA 3.37
Academic Average OAT 320
Total Science Average OAT 326
Applied/Accepted/Enrolled 1034/185/98
Resident Applied/Accepted/Enrolled 127/57/51
Non-Resident Applied/Accepted/Enrolled 907/128/47
Tuition/Fees (Res/Non) \$22,800/\$27,575
Last OAT 4/1
Requires Bachelors Preferred
% Matriculants with Bachelors 94%
Males/Females 32/66
States 22 + Canada and Bahamas

The Ohio State University College of Optometry

Supplemental Application Fee \$40
Supplemental Application Deadline 4/15
Overall Average GPA 3.56
Academic Average OAT 328
Total Science Average OAT 333
Applied/Accepted/Enrolled 589/111/64
Resident Applied/Accepted/Enrolled 85/47/45
Non-Resident Applied/Accepted/Enrolled 504/64/19
Tuition/Fees (Res/Non) \$21,366/\$50,427
Last OAT 3/31
Requires Bachelors Preferred
% Matriculants with Bachelors 90%
Males/Females 33/31
States 14

Pacific University College of Optometry

Supplemental Application Fee \$25
Supplemental Application Deadline 2/15
Overall Average GPA 3.40
Academic Average OAT 320
Total Science Average OAT 328
Applied/Accepted/Enrolled 484/110/90
Resident Applied/Accepted/Enrolled 22/13/11
Non-Resident Applied/Accepted/Enrolled 462/97/79
Tuition/Fees (Res/Non) \$30,432/\$30,432
Last OAT 2/1
Requires Bachelors No
% Matriculants with Bachelors 84%
Males/Females 35/55
States 23 + Canada

Pennsylvania College of Optometry at Salus University

Supplemental Application Fee no supplemental application
Supplemental Application Deadline -----
Overall Average GPA 3.30
Academic Average OAT 310
Total Science Average OAT 310
Applied/Accepted/Enrolled 1159/343/161
Resident Applied/Accepted/Enrolled 88/51/37
Non-Resident Applied/Accepted/Enrolled 1071/292/124
Tuition/Fees (Res/Non) \$32,250/\$32,250
Last OAT 6/1
Requires Bachelors No
% Matriculants with Bachelors 98%
Males/Females 54/107
States 27 + Canada

Rosenberg School of Optometry, University of the Incarnate Word

Supplemental Application Fee \$0
Supplemental Application Deadline 5/1
Overall Average GPA 3.27
Academic Average OAT 321
Total Science Average OAT 324
Applied/Accepted/Enrolled 652/112/64
Resident Applied/Accepted/Enrolled 154/38/23
Non-Resident Applied/Accepted/Enrolled 498/74/41
Tuition/Fees (Res/Non) \$29,360/\$29,360
Last OAT 5/15
Requires Bachelors Preferred
% Matriculants with Bachelors 95%
Males/Females 29/35
States 21 + Canada

Southern California College of Optometry

Supplemental Application Fee \$65
Supplemental Application Deadline 4/1
Overall Average GPA 3.40
Academic Average OAT 332
Total Science Average OAT 339
Applied/Accepted/Enrolled 634/174/102
Resident Applied/Accepted/Enrolled 313/125/82
Non-Resident Applied/Accepted/Enrolled 321/49/20
Tuition/Fees (Res/Non) \$29,430/\$29,430
Last OAT 3/15
Requires Bachelors Yes
% Matriculants with Bachelors 100%
Males/Females 26/76
States 14

Southern College of Optometry

Supplemental Application Fee \$50
Supplemental Application Deadline 3/1
Overall Average GPA 3.45
Academic Average OAT 330
Total Science Average OAT 330
Applied/Accepted/Enrolled 845/244/119
Resident Applied/Accepted/Enrolled 26/13/13

Non-Resident Applied/Accepted/Enrolled 819/231/106
Tuition/Fees (Res/Non) \$18,971/\$25,371
Last OAT 3/1
Requires Bachelors Preferred
% Matriculants with Bachelors 98%
Males/Females 46/73
States 33 + Canada

State University of New York, State College of Optometry

Supplemental Application Fee \$40
Supplemental Application Deadline 3/1
Overall Average GPA 3.48
Academic Average OAT 343
Total Science Average OAT 353
Applied/Accepted/Enrolled 756/134/76
Resident Applied/Accepted/Enrolled 127/37/32
Non-Resident Applied/Accepted/Enrolled 629/97/44
Tuition/Fees (Res/Non) \$17,825/\$33,775
Last OAT 2/28
Requires Bachelors No
% Matriculants with Bachelors 92%
Males/Females 22/54
States 12 + Canada and Bermuda

University of Alabama, Birmingham School of Optometry

Supplemental Application Fee \$75
Supplemental Application Deadline 3/1
Overall Average GPA 3.52
Academic Average OAT 324
Total Science Average OAT 327
Applied/Accepted/Enrolled 341/67/45
Resident Applied/Accepted/Enrolled 36/26/26
Non-Resident Applied/Accepted/Enrolled 305/41/19
Tuition/Fees (Res/Non) \$20,700/\$52,686
Last OAT 2/28
Requires Bachelors Pref
% Matriculants with Bachelors 98%
Males/Females 21/24
States 9

University of California, Berkeley School of Optometry

Supplemental Application Fee \$70
Supplemental Application Deadline 12/1
Overall Average GPA 3.68
Academic Average OAT 353
Total Science Average OAT 365
Applied/Accepted/Enrolled 274/82/68
Resident Applied/Accepted/Enrolled 181/63/54
Non-Resident Applied/Accepted/Enrolled 93/19/14
Tuition/Fees (Res/Non) \$26,080/\$38,325
Last OAT 12/1
Requires Bachelors Yes
% Matriculants with Bachelors 100%
Males/Females 15/53
States 7 + Canada

University of Houston College of Optometry

Supplemental Application Fee \$50
Supplemental Application Deadline 2/15
Overall Average GPA 3.52
Academic Average OAT 322
Total Science Average OAT 327
Applied/Accepted/Enrolled 650/135/104
Resident Applied/Accepted/Enrolled 155/68/66
Non-Resident Applied/Accepted/Enrolled 495/67/38
Tuition/Fees (Res/Non) \$19,018/\$29,822
Last OAT 2/15
Requires Bachelors Yes
% Matriculants with Bachelors 100%
Males/Females 35/69
States 19 + Canada and Venezuela

University of Missouri-St. Louis College of Optometry

Supplemental Application Fee \$50
Supplemental Application Deadline 2/15
Overall Average GPA 3.39
Academic Average OAT 314
Total Science Average OAT 311
Applied/Accepted/Enrolled 504/103/40
Resident Applied/Accepted/Enrolled 26/14/13
Non-Resident Applied/Accepted/Enrolled 478/89/27
Tuition/Fees (Res/Non) \$19,079/\$34,615
Last OAT 2/1
Requires Bachelors Preferred
% Matriculants with Bachelors 81%
Males/Females 11/29
States 13

Western University of Health Sciences, College of Optometry

Supplemental Application Fee \$65
Supplemental Application Deadline 5/1
Overall Average GPA 3.12
Academic Average OAT 317
Total Science Average OAT 325
Applied/Accepted/Enrolled 697/155/86
Resident Applied/Accepted/Enrolled 301/105/60
Non-Resident Applied/Accepted/Enrolled 396/50/26
Tuition/Fees (Res/Non) \$29,015/\$29,015
Last OAT 4/15
Requires Bachelors Preferred
% Matriculants with Bachelors 86%
Males/Females 24/62
States 12 + Canada

TOP TEN REASONS STUDENTS LIKE MCO

1. Small Class Sizes
2. Friendly, Knowledgeable Professors
3. Small, Safe Community
4. Outdoor Recreation Opportunities (Hiking, Skiing, Hunting, Fishing, Tubing, etc.)
5. Patient Care Experience as Second Year Students
6. Reasonable Cost of Living - Attractive Housing
7. Excellent Doctor to Student Ratio
8. Numerous Quality Golf Courses
9. Close Proximity to Grand Rapids
10. Excellent Student Recreation Center

TOP TEN REASONS FACULTY LIKE TO TEACH AT MCO

1. Small Class Sizes
2. State Of Art Technology
3. Innovative & Interactive Curriculum
4. Graduation of Outstanding Clinical Optometrists
5. Excellent Faculty Focused On The Student And The Learning Process
6. Close Relationship Between Faculty and Students
7. Close Relationship Between Students Especially Within A Class
8. Safe, Comfortable Environment
9. Clinical Training Begins in First Year
10. Excellent Fourth Year Clinical Experiences

Faculty CVs

(separate file)



2010 MCO 4th Year Survey

Please take a few minutes to complete the following questions. If any do not pertain to you, please leave them blank. If you are retired, you will be routed to the end of the survey. Thank you!

1. Gender:

- Male
- Female

2. Number of years in practice

- Less than 2
- 2 to less than 5
- 5 to less than 10
- 10 to less than 15
- 15 to less than 20
- 20 to less than 25
- 25 to less than 30
- 30 to less than 35
- 35 or more

3. Select all that CURRENTLY apply to you:

- Retired
- Self-employed (more than 50% controlling share), Owner of 1 OD practice
- Self-employed (more than 50% controlling share), Owner of 2-4 OD practice
- Self-employed (more than 50% controlling share), Owner of 5+ OD practice
- Self-employed (more than 50% controlling share), Franchisee, 1 OD
- Self-employed (more than 50% controlling share), Franchisee, 2+ OD
- Employed by OD
- Employed by OMD
- Employed by HMO
- Employed by Hospital/Clinic/Other Multidisciplinary
- Employed by Military/VA/Public Health
- Employed by Educational Institution
- Employed by Other

Please Specify:

4. Please select the size of the community where you currently practice the MAJORITY of the time:

- Less than 25,000
- 25,000 to less than 100,000
- 100,000 to less than 500,000
- 500,000 or more

5. What is your average commute time?

- Less than 15 minutes
- 15 to less than 30 minutes
- 30 minutes to less than 60 minutes
- 60 minutes or more

6. How many weekday hours (Monday-Friday) do you work, on average, in a week?

- Less than 32
- 32 to less than 40
- 40 to less than 50
- 50 to less than 60
- 60 or more

7. How many weekend hours (Saturday-Sunday) do you work, on average, in a month?

- 0 to 1
- 2 to 4
- 5 to 7
- 8 to 10
- 11 or more

8. Please select your current NET (take home) salary range, EXCLUDING benefits:

- Less than \$50,000
- \$50,000 to less than \$65,000
- \$65,000 to less than \$75,000
- \$75,000 to less than \$90,000
- \$90,000 to less than \$100,000
- \$100,000 to less than \$150,000
- \$150,000 or more

9. Please select all of the following that are included in your benefits:

- Health and/or Dental insurance
- Other insurance (i.e., life, disability, liability)
- Bonuses
- Employer contribution to pension plan
- Time off and reimbursement for professional development
- Paid licensing and association fees
- Paid vacation time
- Paid sick time

10. How much vacation time were you allotted last year?

- 0 (None)
- 5 days or less
- 6-10 days
- 11-15 days
- 16-20 days
- More than 21 days

11. Please indicate your level of satisfaction with each of the following aspects of your career. If something doesn't apply to you, please leave it blank.

	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied
Personal gratification derived from my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities to utilize my skills and talents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My contributions to patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extent to which my career challenges me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extent to which my work is varied and interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of accomplishment derived from work each day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standard of care given to my patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of my work with patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of personal growth and development achieved from my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of time available to complete my work-related tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time available for patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My workload	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall staffing levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to decide how to care for my patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of time spent on administration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support available to me in my career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who work with me each day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of pay I receive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monetary compensation for my contribution to this profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My prospects for promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Match between my career description and my actual performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How secure my future looks within this profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of job security I have	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities to advance my career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time off to attend courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funding for courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commute time to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weekday schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weekend schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Satisfaction with the amount of time between graduating and FIRST being satisfied with my salary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vacation time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Please indicate your level of satisfaction with your optometry school education in preparing you for ENTRY LEVEL practice following graduation, in the areas of:

	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied
Basic Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Binocular Vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact Lenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pediatrics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practice Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Primary Care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-directed lifelong learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please use this space for additional comments.

Thank you for your time and participation.



MCO APR Faculty Survey

As part of the data gathering activities embedded in the Academic Program Review process and the ACOE accreditation submission, surveys of relevant constituencies are necessary. The faculty is certainly one of these groups. Please take the few minutes required to thoughtfully answer the questions in the following survey and contribute to the ongoing review and accreditation processes of MCO.

1. Please indicate your level of agreement with each of the following statements about MCO's *Mission*.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	N/A
MCO is successful in assuring that its graduates have the knowledge and skills necessary for current entry-level optometric practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MCO is successful at developing a strong ethical, social, and professional commitment in its graduates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MCO is successful in developing an ability and affinity for self-directed lifelong learning in its graduates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MCO is successful in providing up-to-date clinical optometric care for its patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relative to other optometry colleges <u>without</u> graduate programs, MCO is successful in conducting programs of research in vision care, patient care, and professional education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relative to other optometry colleges <u>with</u> graduate programs, MCO is successful in conducting programs of research in vision care, patient care, and professional education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Please indicate your level of agreement with each of the following statements about MCO's Curriculum/Students.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	N/A
The current MCO OD didactic courses do a good job of preparing students for clinic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The current MCO OD clinical education does a good job of reinforcing the didactic material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The current second and third year MCO OD clinical education is excellent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The current fourth year MCO OD clinical education is excellent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The OD curriculum needs to be revised	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the last 7 years, the performance of MCO students on part I of the NBEO has been good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the last 7 years, the performance of MCO students on parts II and III of the NBEO has been good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relative to optometry colleges in neighboring states, MCO/Ferris State University needs to be more competitive in attracting excellent out-of-state students to enhance the educational and clinical environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Please indicate your level of agreement with each of the following statements about MCO's Resources.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	N/A
The Ferris State University central administration has provided the support necessary to make MCO a national leader in optometric education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The MCO administration has shown the needed competence and leadership to make MCO a national leader in optometric education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The MCO faculty has been successful in seeking/utilizing the resources necessary to make MCO a national leader in optometric education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Please indicate your level of agreement with each of the following statements about MCO's Working Conditions.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	N/A
In terms of interactions with faculty, staff, and/or administrators, the MCO faculty work environment is good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The MCO faculty workload provides sufficient time for faculty development and for faculty professional activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The accomplishments of MCO faculty are adequately recognized and appreciated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking into account salary and benefits, MCO faculty are adequately compensated financially	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MCO faculty have adequate input into work assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Please use this space to list the areas you feel are strengths of the MCO OD program.

6. Please use this space to list the areas you feel the MCO OD program needs to improve.

7. Please use this space for additional comments.

Thank you for your time and input.



MCO APR Student Survey

The Michigan College of Optometry routinely undergoes review, both internally for self-improvement and from external sources such as the FSU Academic Program Review process and accreditation through the Accreditation Council on Optometric Education. For all of these purposes, survey data from various constituencies is critical. As the consumers of the MCO curriculum and program, students have a special vantage point. Please take the few minutes required to thoughtfully answer the questions in the following survey and contribute to the ongoing review and accreditation processes of MCO.

1. Please indicate which year of the MCO program you are currently in.

- First year
- Second year
- Third year
- Fourth year

2. Please rate the following aspects of your MCO experience.

	Very Poor	Poor	Fair	Good	Very Good	Excellent	N/A
The doctor of optometry degree curriculum at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of faculty instruction at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the clinical care opportunities at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the administrative and staff support at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the clinical equipment and technology at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the classroom and lab equipment and technology at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the library at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the student body at MCO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My ability to find and use clinical reference materials to aid in the diagnosis and treatment of patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. If I could do it over again, I would still pursue optometry as a profession.

- Yes
- No

4. If yes, I would still want to attend the Michigan College of Optometry.

- Yes
- No

5. What was your main reason for choosing optometry as a profession?

6. What was your main reason for choosing to attend the Michigan College of Optometry?

7. Has your interest in optometry as a profession increased or decreased as a result of your educational experience in the College of Optometry?

8. Please explain your answer to the earlier question re: would you choose optometry if you had it to do over again.

9. Please explain your answer to the earlier question re: would you choose MCO again.

10. Please use this space for additional comments.

Thank you for your time and input.

Written Responses – student survey

Main reason for choosing optometry:

Ability to give comprehensive care to patients + still have time for a family
After job shadowing a few other professions, I knew I wanted to be in the healthcare field and optomtry stood out to me. I liked the amount of time an optometrist can be with their patients and the relationship they can build.
Always wanted to get into health care, have a passion for helping people. Having bad eyes starting when I was a kid, it was a perfect fit... always found optometry interesting.
Being able to be visible in my community and help people with something very important to everyone.
clean medical profession, rewarding
Clean proffesion
Excellent career, perks, benefits, medical field.
Get to help preserve/improve what many people agree on is their most important sense, great hours, variety in job opportunities, didn't have to go to school for 12+ years like ophthalmologists do.
health profession without many invasive procedures
helping people to see the world more clearly
I always wanted to be a doctor, and I didn't want to spend 8 more years in school/residency training, and wanted a career that was conducive to having a family, without being on call, and expecting to work long hours.
I chose optometry because I am interested in its scope of health care and I believe it will be a rewarding career filled with a variety of options and opportunity.
I chose optometry because I had always taken an interest in the health field, particularly the eyes. Upon further investigation of the profession, many things were appealing such as the financial stability, variety modes of practice, and the respect that the profession has from the community.
I feel that optometry was a great profession, every OD that I knew had no complaints and really enjoyed their career choice - that s very rare to hear. Also, I would be able to work and have a family life.
I get to help people on a daily basis without the stress of being constantly on-call, while making a living at the same time. I also find the vision system fascinating.
I have had a passion for healthcare and the eyes since I was in elementary school and optometry allows me to fill those interests along with providing me with the avenue to pursue the kind of family life I want.
I have wanted to be an optometrist for as long as I can remember without any specific reason. The only thing I can think of was I had always wanted glasses and never needed them but always remained fascinated about optometry.
I interacted with optometrists all my life and liked what I saw when I job shadowed
I love eyes. Seriously. I wanted to do something medical, but couldn't handle the blood/guts aspect of other fields. Ability to start a family in the future. Shorter time in school.
I see the respect and prestige the OD's from my hometown live with and I desire that same lifestyle.

I think the opportunity to work with people while still having time for a family is what was most appealing about optometry.
I wanted a career in health care and optometry was the perfect amount of patient care and number of yrs of education.
I wanted to be in a profession that helped people.
I wanted to be in the health care profession, but wanted variety in what I did day-to day (contacts, pediatrics, retail, etc) I also wanted to be in a profession that is family-friendly. I was not interested in a health profession where I'd work late or long hours or be on call.
I wanted to do something in the medical field but also want to have the time to raise a family and i thought optometry would be a good career that would allow me to balance work and family.
I wanted to do something in the medical field. I like the potential to have such a positive impact on peoples' lives by helping them see. Plus optometry looked like a good way to make a living.
I wanted to help others and I'm very passionate about the importance of eye care.
I've always been interested in science, wanted to go into a health care profession, and the optometrists I've talked to were all very happy with their careers.
Influence from my own optometrist and interest in the medical field.
Interest in patient care and interaction, desire to improve patient quality of life, desirable salary and schedule
Interested in health care, but didn't want to be in a situation where I did a ton of on-call and emergency care.
It gives me the opportunity to have one on one patient interaction and also have a chance to enhance a person's life.
It is a stable career choice that allows me to help others.
It was important for me to have a career in the health field that also let me have the family life I wanted, which optometry will allow. As I continue my education, I am learning about the responsibilities of an optometrist and about the ways to help patients. I am even more enthusiastic about this career than I ever was.
Liked the medical health field and the combination of working with people on a personal level that it offers
My interest in health care
My mother's eye problems initially stimulated my interest in the eye and from multiple job shadowing experiences with optometrists and ophthalmologists, I was able to confirm optometry was the correct avenue for me.
my optometrist at home
One on one patient interaction in a health field.
One on one patient interaction, good profession for working and having a family
Optometry seemed like an interesting career where I would be able to serve my community, and live the lifestyle I want.
Patient care opportunities and the satisfaction of making an immediate improvement in quality of life.
Patient care, clinical experience.
Patient care.
patient interaction

Personal interest, desire to work in a health care setting, helping people
Professional, flexible atmosphere with great potential
Quality of the profession in terms of scope and flexibility as a doctor.
quality of work, life
solid career that is good for family situations
Suits my talents and interests well
The ability to spend time with patients, but to also be able to have a family.
The opportunity to specialize and work with patients.
The science aspect, but that it was focused on the visual system. I love details and vision most certainly has many details. I am also a people person, and Optometry allows for professional relationships with your patients.
Variation
Wanted a career path that provides ample time for family and community outreach while in health professions field.
Wanted to be in the medical profession, help people, and still have a nice balance between personal and professional lives
Wanting to be able to provide help to people yet still be able to have my own family and life.
Working with and helping people. I also was attracted to the community involvement of Optometry as well as the political aspect of Optometry.

Main reason for choosing MCO:

Cheaper and closer to home. Also, the small class size.
Close to home, and the school had a good reputation.
Close to home, reasonable tuition (comparatively), small class sizes, new building
Close to home, small class sizes, in-state tuition, pleasant atmosphere & faculty
Faculty
Got in after only 3 years of undergrad. Close to home.
Great class size and student to professor ratio
Great faculty to student ratio, top-of-the-line facilities and equipment, and near home for me.
high doctor to student ratio. small class size. I like Big Rapids
How much all of the professors care about our education. The new building is also a nice perk.
I am from Michigan and went to Ferris State for undergrad with the hope to go to MCO from the start.
I am from Michigan.
I chose MCO because of it's great reputation from other optometrists as well as the chance to learn in a brand new, state of the art facility.
I was accepted and I liked the small family type setting
I was accepted as an early admit.

I went to undergrad at Ferris State and loved that it offered small class sizes.
in state
In state tuition
In state tuition and early admittance
In state tuition, small class sizes, and closest to home.
In-state tuition and small class size.
In-state tuition and small class sizes.
In-state tuition, country-side setting (reduce urban distractions places like ICO or Salus might contain), student-faculty ratio.
in-state, faculty attention to students
It is the only optometry school in the state and it was the most economically feasible.
It was close to home, small place so living expenses weren't excessive, small class size.
It was close to home. The staff and faculty seemed very nice and caring. The new facilities were also a big draw.
It was in state and I liked the smaller class size.
Located in Michigan, grew up and plan to continue living here.
location
Location / living in Michigan
Location and the new building.
Location in Michigan.
location to family/friends, cost
Location; Michigan is my home state.
Location. Ferris was close to home. MCO is at Ferris.
Low Teacher-Student Ratio, Very personalized and hands on. You're not just a face in the crowd, the professors actually get to know YOU!
MCO is a small school where you can get individualized attention from all of your professors. It also has a very good reputation.
MCO was the closer the school to my house, I applied to 5 schools and I got accepted to all five schools. And Colleen was great with getting back to me and helping me with all my answers. She was great - from all the schools, she was the most personable secretary.
My main reason for choosing MCO was the small class size.
Only Optometry school in Michigan
Price, proximity, reputation.
small class size
small class size and some of the faculty
Small class size, excellent faculty, resident tuition
Small class size, new building, location - close to home, cost
Small class size, excellent faculty and the new building.

Small class sizes allows me to actually know my professors
Small class sizes and great clinical experience.
Small class sizes and in state tuition
Small class sizes, in state tuition, proximity to family
Small class sizes, new building, and friendly atmosphere.
Small class sizes, small community
Small community, location, and small class size.
Small town and family atmosphere.
The close proximity to family and in state tuition.
The faculty. They were very welcoming and seemed like they cared about the potential students and current students immensely during my interview.
the only school in Michigan
The small class size and focused education
The small class size/student to faculty ratio was my primary reason for choosing MCO
The small class sizes, high faculty to student ratio, as well as location.

Interest increased or decreased:

Better, especially after learning about the residency options
Classes that don't involve direct clinical application decrease my interest in being at MCO
Decreased - only because of the debt I have accrued over the years. In 10 years I'm not going to be able to shut up about loving my career...but that's after 200k of debt paid off.
Definitely increased
held constant
I still want to be an optometrist, and looking forward to it.
increased
Increased
increased - 20 fold!
Increased - MCO got me very involved in the profession.
Increased 10 fold.
Increased even though it is difficult learning how to think like a doctor.
Increased greatly
Increased in most areas, including medical management of ocular disease and political advocacy.
increased the more I learn and the more clinical experiences I have
Increased tremendously!
Increased tremendously.
Increased, definitely.
increased, dramatically

Increased, I didn't know everything involved in the career, and finding out all we can do has made me love it more.
Increased, love working more and more everyday.
Increased.
Increased. I wasn't sure i was going to like optometry before i started but now i am very pleased with my career choice.
Increased. The more I learn about the prfession and all the opportunities it holds, the more excited I get.
Increased. The profession is more complex and cutting edge then I would have ever thought as an undergraduate.
inxreased
It has definately increased, especially with respect to the fact that Optometry is a legislative profession.
It has DEFINITELY increased since being at MCO.
It has increase dramatically since beginning here, there are many areas I didn't know we could get involved with that are open to us (like VT, and neuro-optometry)
It has increased, I am realizing that there are so many more modes of practice than I originally thought.
It has increased.
it has remained the same
It has stayed consistent. There are now certain aspects which I am much more interested in, such as binocular vision, but also several which I am not particularly fond of, such as the political aspects of the profession.
It has stayed the same. The reasons I joined the profession haven't changed. With that said, I guess knowing the hard work it takes to become an optometrist and the lifelong learning that will occur, I have the motivation to "keep interest" becasue of my education here.
Learning more about the eye and optometry has increased my interest.
My experience in optometry thus far has increased with each additional patient I work with.
My interest has increased as my knowledge increased. I realized that there are many aspects to this field and everyday is different than the last.
My interest has increased.
My interest in optometry has definitely increased as a direct result of MCO.
My interest in optometry has increased since attending MCO.
My interest in optometry itself has not changed, however my interest in MCO has greatly declined.
My interest in private practice optoemtry has grown exponentially.
My intersest has increased the more I learn about the profession.
Roller coaster. Overall my interest is about the same as when I started.
Yes, especially as you progressed through the years

Would you choose optometry again:

Absolutely, it has been the ideal mix that I thought it would be
--

Absolutely. Optometrists are gaining ground in the health professions in respect to reimbursements, scope of practice, and professional status. The time spent with patients and the improvement in a persons QOI is outstanding.

Although the workload is tremendous, I've enjoyed my experience at MCO very much, and I look forward to making good money after graduation.

Before attending optometry school, I was unaware of the depth of the field. I have enjoyed the fact that optometry is more than glasses/refractions. I love the career and patients.

Definitely, I would still choose optometry.

Expanding profession, great interaction with patients, involved not just in eyecare, but the general health of the patient

I absolutely love what I am doing and I know I will be happy going to work each day.

I am more excited about optometry now than I was at any other point in my optometric career. The profession continues to surprise and impress me every day and I look forward to continuing to experience that as I go forward.

I am so happy with finally seeing patients and feeling comfortable seeing patients. I love helping patients with their complaints and being somewhat of a detective when attempting to solve the complaints.

I can't think of another profession that would be better

I enjoy the aspects of patient care and patient interaction, enjoy the classes that actually pertain to optometry (ie procedures, optics, vision science), and still believe that it is a good career choice for me.

I enjoy working with patients and feel they are truly appreciative of the service we provide.

I feel that this career will be extremely satisfying. I will be able to help many patients and the impact I could possibly have on their life is huge. I never realized how much one can tell about the entire body by examining the eye.

I greatly enjoy helping people on a daily basis realize better quality vision.

I have a great time in clinic helping and getting to know my patients. Best job out there.

I have been very happy with the optometric program. I am looking forward to graduation and starting my career.

I have learned an incredible amount of material over my 3 years at MCO. I believe I will do a lot of good by taking care of people's ocular health and vision.

I have no regrets

I haven't been able to think of another (realistic) profession yet that I would enjoy more than optometry at this point.

I highly enjoy optometry and look forward to a long career in it.

I just feel it is a great career!

I really enjoy primary care optometry and providing full-scope optometric care to patients

I really enjoy seeing patients as an optometrist.

I was definitely challenged while in optometry school, but it is all worth it. Serving patients is more rewarding than I could've ever imagined.

I would because I have been very satisfied with my patient care experience since I have been at MCO.
I would choose it because it is respected career, there are a lot of modes of practice, the opportunities are limitless, and it is a good career for a mother.
I would choose the same route for my future. I enjoy the knowledge I have gained this year and am excited to get to use the techniques and material I have learned this year to help patients in the near future.
I would choose this profession again if I had to do it over. I like the relationship we can have with our patients and also the type of care we give.
I would definately choose optomtry over again, through out my schooling here at MCOP i have learned so much and it has only made me more interested in being ably to properly diagnose and treat all of my patients
I would definatly choose optometry again. I can't imagine myself doing anything else at this point.
I would definitely choose optometry again because you can increase a patient's quality of life and give back their independence if they lost it. It almost like working miracles!
I would mainly because I'm begining to see first hand how I can contribute to a person's quality of life. With the education that I recieve, I can help lots of people, make a personal connection with them and build credible relationships with families and the community I work in. Granted, every single day won't be perfect, but I feel this is a very rewarding career.
If I could relive life why would I do the same thing, that would be boring.
It is a lot of work, but nothing has made me change my mind as of yet. Hopefully it will all pay off in the end.
It offers me what I want in life: personal relationships with people I help, many opportunities to advance my self personally, enough money to live reasonably, and ability to become politically involved
Of course. It is a very challenging program, but it was so well worth it. I love being able to see a variety of patient types.
Optometry is a very rewarding career choice, my only complaint is how legislative the profession is. I understand people want to do more with optometry, but at the same time I feel some are selfishly in pursuit of too much and should have become ophthalmologists. With that being said I also feel the curriculum is highly dictated by this and some professors constantly remind us of how "we have something to prove" if we want an expanded scope.
Practicing optometry is still basically what I thought it was upon entering school.
Still love helping people see
the classes are challanging but it will be worth it in the end.
The more I learn about optometry the more I am driven to pursue it as a profession. I love working with people and it provides me the freedom to work in a medical setting while still maintaining regular business hours.
The only reason I said NO was because of the debt. I had a good job out of high school paying 40k/year. Had I worked that job for 8 years instead of spending undergrad and grad money I probably would have a bunch of cool things right now. I also would probably never really see a 6 figure income. That's what life is all about - choices. I'm satisfied with mine but I'll always wonder what the other path had in store.
There hasn't been anything that has made me think that I either can't handle optometry or don't find it to be of interest anymore. I still enjoy and appreciate the same things about the profession as I did when I entered it.

This was a tough question to answer because I'm not out in the real world working and helping people on a daily basis yet. I haven't realized to benefits or drawbacks that would come with this, but so far I think I have made a good decision.

yeah, i find learning about optometry is very exciting. it has cemented the fact that this is what i want to do with my life.

yes

Yes I would choose Optometry again. The visual system is so intricate, and I can help so many people with what I've learned just in my first year of school.

Yes I would choose optometry if I had to do it over again because I still recognize optometry for all that it offers a career oriented woman who also wants the flexibility to puruse having a family.

Yes, assuming I can find a job. I just completed a survey demonstrating that it is a satisfying life long career, both financially, and in duties.

Yes, I look forward to learning more about optometry every day.

Yes, I love what the profession has to offer in terms of different modes of practice, working environment/hours, patient care, etc.

Yes, I would choose optometry if I had to do it all over again. I still feel that there is a lot of opportunity in this career and that I am meant to do this job. My classes are genuinely interesting and I feel like I can be successful.

Yes, I would. I wanted to be an optometrist before coming here, and I still would do it.

Yes, I'm glad I chose this profession. Optometry is a solid field with the potential to serve a large number of people. I enjoy working with people and taking care of their visual needs.

Yes, it is a great profession.

Would you choose MCO again:

Absolutely. The faculty have been wonderful. I truly enjoyed my four years here and will miss this place after graduation.

Big Rapids is horrible but the faculty are great and I'm not sure I would have received as good as an education anywhere else.

Despite the horrible teachers that teach microbiology and especially anatomy and biochemistry the teachers that teach the optometry classes are fantastic.

have enjoyed the experience, small class size, and caring instructors

I am from Michigan, so that is why my first choice was MCO. Like they always say "location, location, location." I was pleased with the quality of education I received. I enjoyed the small class sizes, but of course that causes issues when being around each other so often. Pros and cons like most things in life. To be honest, I am leaving MCO with a bit of a bitter taste in my mouth. Some of my classmates made our class, as a whole, look like bad people. I feel that the faculty treated us all differently during our 3rd year. Those of us who "kept our noses clean" shouldn't have been made to feel like we did something wrong when we didn't. I'm sure much of this was not intentional but it is what it is. In the future, I hope both the students and the faculty members handle

<p>situations more professionally. I suppose everything that has happened makes it easier for me to leave this place. Everything happens for a reason. I've met some wonderful people here and got a quality education, so, overall, I'm happy with my decision to go to MCO.</p>
<p>I answered yes to the above question however, I have to say I am happy to be leaving when I am. I feel like our class has been made an example of way too many times in the past year. We have taken the brunt of the anger for other problems the school has had in the past. On that same topic, there have been many inconsistencies conveyed to the students by faculty in what is expected of us and then fair punishment for those actions.</p>
<p>I believe this is the best school i could have picked</p>
<p>I didn't really want to go to MCO when I applied; I wanted to get out of Michigan. I applied to MCO thinking I wouldn't get in without a bachelor's anyway. I am SO GLAD I went to MCO because it was an EXCELLENT education with great students, staff, and professors; I feel like I got much more personalized attention than students at other schools. Not only that but I have a great relationship with the professors and would feel extremely comfortable contacting them in the future if I ever needed anything.</p>
<p>I do not believe that MCO handles all situations consistently between different student situations. I also believe that some actions have been taken to discipline students with absolutely no consideration of whether the faculty were at fault.</p>
<p>I don't currently have a summer rotation, and I don't think they are doing their job to get one set up, they are currently only looking at one place, and are not sure that will go through. This may have been a bad 3 weeks to send this survey to me during.</p>
<p>I don't have the want to go anywhere else, and out of state tuition isn't too appealing either.</p>
<p>I had a great experience at MCO. As stated before, I loved the small class sizes and how involved the doctors were in student life. It allowed me the opportunity to become a leader.</p>
<p>I have nothing but good things to say about the MCO school.</p>
<p>I liked the smaller class size, location, and faculty.</p>
<p>I love the small class sizes at MCO and the fact that all of your professors know your name. Also, most of the professors are excellent and you can tell that they truly love teaching and go out of their way to help students learn. Also, the new building is definitely a plus.</p>
<p>I really felt like I made a family here at MCO. I could go to any faculty member with questions or just for advice, and feel totally comfortable doing so. Also, the students are just amazing and well-rounded/caring people! We got SO much one-on-one time with faculty and I feel this was a true advantage and it ensured that we really know our material. The new building is absolutely beautiful and we now have a facility we can be as proud of as our educational program! Not one complaint about the facility and equipment!</p>
<p>I think for the most part the faculty are fantastic. There is so much hands on experience we get one on one. I know a lot of the time we don't even realize how lucky we are to get such personal interaction on a regular basis with all of the faculty.</p>
<p>i think so, wish it was located in a bigger city</p>
<p>I was a little apprehensive going to a school with such a small and shabby building (Pennock), but soon learned that the curriculum and faculty were top-notch. Also, some of my closest friends are my classmates. I would definitely choose MCO again.</p>

I would choose MCO again because I find the faculty outstanding and the actually building facilitates learning.
I would choose MCO again because of the small class sizes and the friendships made between classmates. Most of the professors are excellent and really care if the students are learning.
I would choose MCO again because we have a lot of clinical experience and I feel that the faculty are very good teachers.
I would choose MCO again mostl because of the great professors and clinical intstructors. i was not fortunate enough to enjoy the new building in clinic and if i had most of the negatives things i can think of would no longer be an isse.
I would likely choose MCO again. I think that on a whole the education is well organized and taught in a manner that is effective. I don't feel as though I am behind any other optometry school because I came here. The new facility is all that it was talked up to be. I am very satisfied with it and look forward to seeing patients in the MCO clinic in the near future.
I would not choose MCO again because of the poor treatment of students by faculty (as though we are inferior and still children) and because of the apparent lack of care in the poor quality of education given by some professors. I believe that even though the institution knows certain problems exist they don't want to change the status quo and students suffer because of it. Also, administration has also overlooked some professors poor behavior and example and punished the students for following that example.
I would not choose MCO if I had to do it over again becasue I have not been impressed or pleased with the way the administration has handled certain situations, specifically regarding the Academic Review Committee and the Assoc. Dean, since Dr. Peterson-Klein retired. I was accepted to two other schools and chose not to attend either of them solely based on the increased tuition. I do wish I would have taken the opportunity to go out of state for my education.
I'm very pleased with the optometry program at MCO.
I've been very impressed with how much the faculty cares about the student body. I do not feel like another number to the doctors there, but I feel as if, in a way, I am an investment they are making. They will help me anyway they can. Their doors are always open if I have any questions or want to know more about something. Also, the new building is amazing. I feel as if I am in an environment that nurtures my learning and that will allow me to make the most of my educational career.
I've greatly enjoyed my time at MCO and I believe I've recieved an excellent education, better even than that of several larger optometry colleges.
I've had great experiences with MCO with both the students, staff and faculty
If I could go back and consider another optometry school, I honestly would. The new building is great and so far the faculty has been terrific for the most part. However, there has been one professor that I have encountered during my first year that has made my experiences seem unprofessional and has made a negative impact on my learning here at MCO. I worry about learning from this professor in the 2nd year clinic because I feel like I will lose out on critical skills while obtaining my first experiences in the clinic. I am also unimpressed with the town of Big Rapids. I feel like there is a minimal amount of diversity here and that is something I will miss out in the clinic. I have also realized that I would like to practice outside of Michigan so I wish i would have attended a school closer to an area in which i was interested in practicing. On the other hand I am very satisfied with the

rest of the faculty here and I love learning in the new building. The administration is very helpful and easy to work with. Overall, I am still relatively happy with my choice to attend the Michigan College of Optometry
If I didn't come from Michigan, I would not choose MCO (Pennock hall version). That's when I interviewed though. I have only had one semester in the current facility. The "new" MCO is so nice I don't know why students interview anywhere else.
If I lived in a different state, I would strongly consider going to a different college of optometry. However, the other main reason I chose and would choose MCO is the small class sizes, and the teacher: student ratio.
It was my initial impression that the small class sizes would ensure that my learning would be at its greatest. I however, have now come to the realization that this is not the case in all courses. Numerous courses I find myself essentially reading the book multiple times and teaching myself because the lectures are of little supplement to exams. To me this is confusing considering a professor should test on material deemed important and therefore in my opinion should lecture on it in some detail as well. Also on a side note the thought of escaping the Michigan winters has occurred a time or two as well.
Location and cost have been the most important factors and MCO allows me to meet these criteria.
MCO faculty and staff are amazing! The small class sizes are great, to really get that extra help/personalization that you need to succeed!
MCO has been a great environment for me to maximize my potential. The resources for practicing clinical procedures and understanding the scientific background pertaining to the eye have much enriched my learning experience.
MCO has given me a strong foundation in so many aspects of my chosen profession. Be it clinical skills, business understanding, or personal skills, MCO has fostered an excellent program that is rigorous and challenging and has, I feel, well prepared me to begin whatever path I choose after leaving their doors. The program's small size is unique and presents great opportunity for one-on-one instruction when needed, as well as a bond shared by the students that cannot be rivaled.
MCO is a great school and I have benefited from the small classroom sizes.
No, isn't a good option. "Maybe" is a better answer. I am extremely disappointed in some of the faculty here. Also in dealing with the faculty, it seems like the students aren't important, and our views aren't even being considered on a lot of decisions. Also, the year before my class had a cheating scandal so now all of our professors are taking it out on us, and punishing my class. We haven't done anything wrong, yet we're getting punished by ridiculous tests and no benefit of the doubt on anything we do. I came here because I thought MCO would be a big family.....I'm not feeling that way. Yet another time in my educational career I feel like a number and not a student. (granted, there are many professors and staff that are great....but we have not had the pleasure of having them in classes yet).
One of the obvious reasons in choosing MCO again is the new building. It has been great to be a part of the new building and all the wonderful things it has to offer. Also, there are several instructors that are excellent.
One teacher puts a damper on the experience here. All other faculty have been fantastic, but this one frustrates and demoralizes the student body. If I had known my first year would have been better elsewhere, I may have considered it. The rest of the faculty is very inspiring and professional! I think I will really enjoy my education here once I move on to 2nd yr.

small class sizes
Small class sizes, state of the art new building, very knowledgeable professors who are willing to help with anything and challenge us to become better clinicians
So far, I've thoroughly enjoyed my experience here at MCO. I've also met students from other schools, who didn't seem very happy with their choice.
The brand new building and equipment make up for the fact that the weather here is terrible.
The professors are personable and knowledgeable and greatly helped my development as an optometrist
there is one teacher that I feel needs some training but other than that my view of MCO is unchanged.
This is a top Optometric University with a brand new building to complement an outstanding faculty. The clinical experience at MCO is second to none, getting into clinic as a second year student and building clinical skills even in your first year is essential to a successful career in optometry. Furthermore, the professor to student ratio is incredibly helpful, particularly in classes where learning is best done through hands on skills and demonstrations.
Well, I wanted to stay in Michigan, and this is still the only college of optometry in the state... I've enjoyed my time here, quality of education is as good or better than I'd get anywhere else.
Well, this question was too difficult to answer. Since if you had asked me this a year ago, I would have said yes in a heartbeat. However, after going through 3rd year, this was a hesitant yes. I feel that this year MCO seems to put all the built up issues on our class, it just made it difficult for all members of the class to enjoy 3rd year. So if things went back to how they were a year ago, I would recommend anyone to go to MCO, but the way things currently are - I would be hesitant to recommend it.
With the new building, MCO now has the quality school it deserves to match the quality faculty there. I have met many students from other schools over my last year of internships, and MCO still stands out above the other schools to me.
Yes
Yes, because I needed the support of the small class size, otherwise I'd get lost among all the students.
Yes, I was pleased with the experience I had at MCO. The professors are very helpful and kind for the most part and genuinely want to see the students succeed. I met a lot of great friends at MCO as well.
Yes, it is a great college
Yes, the clinical and educational faculty is amazing
Yes, the quality of clinical instruction is 2nd to none. You have somebody to ask questions to and guide you if you need help. The faculty treat you as colleagues instead of students. Great experience

Written Responses – faculty survey

Strengths of program:

1) The low Student to doctor ratio in the clinics. 2) The small class sizes which allow more directed and personal interaction with students. 3) A highly competent and motivated body of faculty educators who are genuinely interested in student education. 4) Competent college administrators who are committed to providing an educational experience and work environment that fosters excellence in didactic and clinical education. 5) A state-of-the-art educational facility
Clinical education
Commitment of faculty/admin to the program; new building; strong academic program and excellent board scores
Excellent, comprehensive curriculum, Strong didactic and clinical education including all specialty areas lacking at other optometry schools, excellent clinical exposure and patient encounters, strong and cohesive faculty and MCO administration who get along well, strong professional relationships with students because of small class size, faculty members are EXTREMELY involved in community service, leadership roles in professional organizations, and the good and welfare of the program
Faculty commitment to student learning is strong.
Faculty to Student Ratio in Clinic and Laboratory
Great new facility. Excellent faculty & staff interactions and motivations. Small class size.
Small class size. Excellent clinical preparation/experience. Dedicated faculty/administration
Small size
Small student/teacher ratio, Talented and dedicated faculty, Excellent facilities, Up-to-date technology
So far the selling point has been the small doctor-student ratio that allows us to provide individual attention to student interns in the clinic. The small student and faculty bodies also create a 'family - like' work environment which is pleasant. MCO has a strong clinical program - our students enter clinic a semester ahead in comparison to other schools. Additionally, relative to other optometry colleges our students receive excellent training in medical billing and coding. Also, from the perspective of faculty there is greater faculty governance at MCO relative to that in other optometry colleges.
We have a lot of dedicated and enthusiastic faculty and staff. The new clinical staff manager is awesome and has done great things to improve staff efficiency and morale, in the absence of a full-time Director/Asst Dean. These efforts are heroic and above the normal work expectations and can not be maintained over time and will not allow growth of the program. New faculty have energized our established faculty and bring great new ideas to the program. They need time for mentoring and growth and the potential is awesome. Overall the student pool remains good, however, we have an increasing percentage of students struggling. The new facility is great, there are many small issues that can be addressed to make the environment even more effective and enjoyable.

Areas of needed program improvement:

1) Fostering an environment that facilitates research (basic and clinical) at the college..this includes work load credit and grant funding opportunities. 2) More faculty to offset the imminent increase in student numbers so as to maintain the quality of didactic and clinical education that is endemic to MCO. 3) A student recruitment and continuing education officer is in dire need as these activities are currently conducted by faculty that are overwhelmed and have no time to dedicate toward the development of this much needed service - remember this appointment has the potential of funding itself! 4) The clinic needs a Clinic Director to facilitate growth and profitability of the UEC services..this will enhance student patient experience and also increase income that will be used to fund various college-related and clinic-related programs.

Additional patient encounters in 2nd and 3rd year. The allotted time is sufficient but increased yield for patient encounters is desirable.

Better communication between administration and faculty/staff. More human resources, both faculty and administration.

Cost of tuition much too high compared to other optometry schools and is hurting student recruitment, need additional resources in terms of faculty, staff and administrators to run our clinic, external clinics, perform marketing activities, recruit students to the program and solicit donations (faculty try to do all of this and the quality of instruction is sacrificed unintentionally - we need help), need a stricter and more consistent process of discipling student misconduct which has become an issue as of late

Curriculum assessment needed; need administrative bodies (only 2 admin for 3 positions); would be helpful to have a graduate program and enhanced research potential; do not have any real assessment of faculty by Associate Dean --do not review goals, discuss objectives, career development...

Improve recruiting/admissions success. Central administration needs to recognize the more than significant workload of faculty/administration.

Increase patient load in clinic. Get better qualified doctors in clinic.

Increased patient encounters for 2nd and 3rd year students while at the University Eye Center

MCO requires greater faculty/admin/staff support. Faculty and administrators have over the years taken on additional duties without workload credit or compensation.

More human resources (faculty, Admin. and staff), Student recruitment, Development of scholarships and alumni interaction, Enhancement of Continuing Education program, Marketing the University Eye Center to increase patient flow, Monitoring and modifying the 4th year externship program to ensure broad experience for all graduates, stronger relationships with Ferris central administration.

Number of patients available for students More faculty needed to cover all aspects of MCO program (residencies, Baldwin clinic, Cherry Street Clinic, etc) More administrators/staff needed to free up faculty time for research and scholarly activities In order to be a "National Leader: Faculty workload needs to reflect time spent on research/scholarly activities.

The Dean' offices are overburdened. They spend too much time putting out fires. The lack of planning results in missed opportunities and incomplete work projects resulting in faculty and staff needing to step up to either apologize to students and patients when their needs and expectations go unmet or do the work themselves. This makes the program look unprofessional and incompetent. There is also a need to improve communication from

the Dean' office on small issues like how to make equipment requests and more importantly on bigger issues like workload, new faculty lines, etc. MCO has poor and inaccurate image across campus of being lazy and entitled. The Dean's staff have poor working relationship amongst themselves too often resulting in poor support of faculty and school projects. Our curriculum needs to be seriously considered. We have patched it up for a few years now because of emergencies and it now lacks logical flow and has several gaps and unnecessary redundancies. We need to address how the new faculty will grow into courses that have potential retirements, etc. We must have a signed workload policy. We must have a cogent business plan for the University Eye Center or a commitment from FSU to fund it. We can't patch together a business plan through trial and error by untrained (albeit intelligent and dedicated) faculty and staff and then be called to the mat when we don't generate revenue. The FSU needs to provide the UEC the support and authority to be successful and the UEC Director must pass on this authority to Chiefs. It is impossible to make people responsible without giving them authority.

Additional faculty comments:

I could not be more proud of MCO and the way we treat and educate our students. I've worked with graduates from many other colleges of optometry and witnessed the superiority in the preparation both clinical and classroom that our students receive. The preservation of our relatively small class sizes are so important in the quality of this education and what makes us unique from other schools.

MCO comprises highly competent faculty and administrators with diverse strengths who are willing to channel their passions for the mutual benefits of student education and the growth of the profession. The work environment is professional and creates a collegiate environment that fosters active and constructive intellectual discussion on issues that span administrative structure to effective teaching techniques. It is because of this commitment and altruism that faculty (and administrators) have taken on more than they can currently handle. The college has grown in leaps and bounds, and quite honestly it's imperative that more support is given for increased faculty numbers to facilitate the growth of MCO - an asset of Ferris State University.

MCO needs to develop revenue sources (ie clinic and continuing education) in order to invest properly in the program and thus fulfill its potential. This development needs to be aided initially by central resources with the knowledge that future benefits will be significant.

There is a general issue of initiatives and procedures being put into place that are claimed to increase efficiency and quality (such as the "quality" business models) that are actually causing more problems. By increasing work assignments to nearly 100% of capacity (student faculty ratio, workload of 1.0, maximizing class-size, etc) there remains insufficient flexibility in the system for emergencies and time to do extra work. eg. serving on campus committees, if someone gets sick or needs travel, then clinics have to be closed or overbooked (which threatens patient care and/or teaching). If we need every faculty working 100%, then there needs to be an effective back-up system. Or, maybe it is better to have some built in slop and trust the proven dedication of the faculty to use this extra time to serve the College and University. There is a general problem of the tail wagging the dog regarding some FSU "support" services. For instance when asked to solve a net working issue in the clinic the TAC suggestion was for the faculty person to go into each room and copy down the tag numbers and provide a detailed list to the TAC. I don't believe it is efficient use of

resources to have the highly paid faculty doing these tasks. In a clinical setting maximum efficiency is 4-6 staff for each doctor, this allows the doctor to spend their time doing mostly their specialty. At MCO we have less than one staff for each faculty resulting in the faculty doing staff work, largely activities that we are not well prepared for and that reduce the time available to serve the students and patients.

TO: Whom It May Concern
FROM: Nancy Peterson-Klein, O.D., Associate Dean
RE: Profile of 2006 Entering Class
DATE: September 22, 2006

CLASS SIZE = 36

Demographic Profile

AGE

Range 20 - 30
Mean 22
Median 22
Mode 22

SEX

Male 16 (44%)
Female 20
(56%)

RACE

Non-Minority 28
Minority 3
Non-Designated 5

Academic Profile

OAT EXAMINATION (200 to 400)

High Mean 380
Low Mean 300
Overall Mean 332

Mean OAT scores by examination category:

AVG 332, QR 310, RC 356, PHY 325, BIO 325, GCHM 333, OCHM 344,
SCI 337

GRADE POINT AVERAGES

Pre-Optometry GPA	Mean 3.56
High 4.00	
Low 3.02	
Mean 3.50	
Overall GPA	
High 4.00	
Low 2.94	

General Information Profile

APPLICANTS

Total Number	255
Michigan Applicants	102
Non-Michigan Applicants	121
Foreign Applicants	32
Female Applicants	179
Male Applicants	76
Non-Designated	0
Minority Applicants	67
Caucasian Applicants	137
Non-designated	51
Number of Interviews	63
Resident Accepts	30
Non-Resident Accepts	6
Minority Accepts	3
Non-Minority Accepts	28
Non-Designated Accepts	5

PRE-OPTOMETRY LEVEL/DEGREES

60 to 90 semester hours completed	0
91 to 120 semester hours completed	11
Accepts with Bachelor's Degree	25 (69%)
Master's Degree	2
Doctorate Degree	0

SUMMARY OF PRINCIPLE UNDERGRADUATE COLLEGE ATTENDED

In-State Residency:

Calvin College	1
Central Michigan University	3
Ferris State University	13
Grand Valley State University	1
Hope College	1
Michigan State University	6
Michigan Technological University	2
Northern Michigan University	1
Oakland University	1
University of Michigan	1
Wayne State University	1

Out-of-State Residency:

Brock University	1
State University of New York	1
University of Waterloo	1
Weber State University	2

Profile of 2007 Entering Class
MCO Office of Student & Academic Affairs
September 13, 2007

The Michigan College of Optometry selects for admission to the Doctor of Optometry degree program the most qualified resident and non-resident applicants who demonstrate high intellectual/academic performance and clinical potential (personal qualities and accomplishments). An in-depth knowledge of the optometry profession is recommended to further enhance the application. All applicants are reviewed on their individual merits and also on their merits relative to the entire applicant pool.

CLASS SIZE = 36

Demographic Profile

AGE SEX RACE

Range 20 – 47	Male 14 (39%)	Non-Minority	31
Mean 23	Female 22(61%)	Minority	3
Median 21	Non-Designated	2	
Mode 21			

Academic Profile

OAT EXAMINATION (200 to 400)

High Mean 370
Low Mean 300
Overall Mean 336

Mean OAT scores by examination category:

AVG 336, QR 349, RC 350, PHY 321, BIO 327, GCHM 333, OCHM 342, SCI 335

GRADE POINT AVERAGES

Pre-Optometry GPA	Overall GPA
High 4.00	High 3.98
Low 2.87	Low 2.98
Mean 3.47	Mean 3.55

General Information Profile

APPLICANTS

Total Number	253
Michigan Applicants	92
Non-Michigan Applicants	134
Foreign Applicants	27
Female Applicants	171
Male Applicants	82
Non-Designated	0
Minority Applicants	75
Caucasian Applicants	147
Non-designated	31
Number of Interviews	75
Resident Accepts	30
Non-Resident Accepts	6
Minority Accepts	3
Non-Minority Accepts	31
Non-Designated Accepts	2

PRE-OPTOMETRY LEVEL/DEGREES

60 to 90 semester hours completed	1
91 to 120 semester hours completed	15
Accepts with Bachelor's Degree	20 (56%)
Master's Degree	0
Doctorate Degree	0

SUMMARY OF PRINCIPLE UNDERGRADUATE COLLEGE ATTENDED

Black Hills State University	2
Butler University	1
Calvin College	1
Central Michigan University	1
DePauw University	1
Ferris State University	17
Grand Valley State University	3
Michigan State University	1
Northern Michigan University	2
University of Michigan	2
University of Minnesota	1
University of Tennessee	1
University of Utah	1
University of Wisconsin	1
Western Michigan University	1

Profile of 2008 Entering Class
MCO Office of Student & Academic Affairs
September 23, 2008

The Michigan College of Optometry selects for admission to the Doctor of Optometry degree program the most qualified resident and non-resident applicants who demonstrate high intellectual/academic performance and clinical potential (personal qualities and accomplishments). An in-depth knowledge of the optometry profession is recommended to further enhance the application. All applicants are reviewed on their individual merits and also on their merits relative to the entire applicant pool.

CLASS SIZE = 36

Demographic Profile

AGE SEX RACE

Range 20 – 27	Male 15 (42%)	Non-Minority	33
Mean 22	Female 21(58%)	Minority	2
Median 22	Non-Designated	1	
Mode 22			

Academic Profile

OAT EXAMINATION (200 to 400)

High Mean 370
Low Mean 310
Overall Mean 336

Mean OAT scores by examination category:

AVG 336, QR 349, RC 322, PHY 335, BIO 331, GCHM 337, OCHM 353, SCI 346

GRADE POINT AVERAGES

Pre-Optometry GPA	Overall GPA
High 3.98	High 3.99
Low 2.99	Low 3.05
Mean 3.46	Mean 3.54

General Information Profile

APPLICANTS

Total Number	268
Michigan Applicants	91
Non-Michigan Applicants	155
International Applicants	22
Female Applicants	179
Male Applicants	89
Non-Designated	0
Minority Applicants	81
Caucasian Applicants	161
Non-designated	26
Number of Interviews	74
Resident Accepts	29
Non-Resident Accepts	7
Minority Accepts	2
Non-Minority Accepts	33
Non-Designated Accepts	1

PRE-OPTOMETRY LEVEL/DEGREES

60 to 90 semester hours completed	0
91 to 120 semester hours completed	9
Accepts with Bachelor's Degree	27 (75%)
Master's Degree	0
Doctorate Degree	0

SUMMARY OF PRINCIPLE UNDERGRADUATE COLLEGE ATTENDED

Calvin College	1
Central Michigan University	1
Ferris State University	17
Grand Valley State University	2
Michigan State University	3
Mount Marty	1
Queen's University	2
Ripon College	1
University of Detroit/Mercy	1
University of Michigan	2
University of Minnesota	2
University of Utah	1
University of Windsor	1
Western Michigan University	1

Profile of 2009 Entering Class
MCO Office of Student & Academic Affairs
September 18, 2009

The Michigan College of Optometry selects for admission to the Doctor of Optometry degree program the most qualified resident and non-resident applicants who demonstrate high intellectual/academic performance and clinical potential (personal qualities and accomplishments). An in-depth knowledge of the optometry profession is recommended to further enhance the application. All applicants are reviewed on their individual merits and also on their merits relative to the entire applicant pool.

CLASS SIZE = 36

Demographic Profile

<u>Age</u>	<u>Gender</u>	<u>Ethnicity</u>
Range 20-27	Female.....21 (58%)	Non-Minority.....31
Mean 23	Male.....15 (42%)	Minority.....3
Median 22		Non-designated....2
Mode 22		

Academic Profile

OAT Examination (200-400)

Overall Mean.....336
 High.....370
 Low.....310

Mean OAT scores by examination category:

AVG 336, QR 341, RC 334, PHY 323, BIO 334, GCHM 326, OCHM 342, SCI 336

Grade Point Averages

Pre-Optometry GPA	Overall GPA
Overall Mean.....3.38	Overall Mean.....3.43
High.....4.00	High.....4.00
Low.....2.61	Low.....2.72

General Information Profile

Applicants

Total Number.....	264
Michigan Applicants.....	76
Non-Michigan Applicants.....	159
International Applicants.....	29
Female Applicants.....	172
Male Applicants.....	92
Non-Designated.....	0
Minority Applicants.....	88
Caucasian Applicants.....	150
Non-Designated.....	26
Number of Interviews.....	80
Resident Accepts.....	29
Non-Residents.....	7
Minority Accepts.....	2
Non-Minority Accepts.....	31
Non-Designated Accepts.....	3

Pre-Optometry Level/Degrees

60 to 90 semester hours completed.....	0
91 to 120 semester hours completed.....	7
Accepts with Bachelor's Degree.....	26
Master's Degree.....	2
Doctorate degree.....	1

Summary of Principle Undergraduate College Attended

Alma College	1
Central Michigan University	2
Ferris State University	11
Grand Valley State University	3
Lake Superior State University	1
Marquette University	1
Michigan State University	3
North Dakota State University	1
Oakland University	1
South Dakota State University	1
Spring Arbor University	1
St. John's University	1
University of British Columbia	1
University of Calgary	1

University of Michigan Ann Arbor	4
University of Minnesota Duluth	2
Wayne State University	1

**Profile of 2010 Entering Class
MCO Office of Student & Academic Affairs
August 30, 2010**

The Michigan College of Optometry selects for admission to the Doctor of Optometry degree program the most qualified resident and non-resident applicants who demonstrate high intellectual/academic performance and clinical potential (personal qualities and accomplishments). An in-depth knowledge of the optometry profession is recommended to further enhance the application. All applicants are reviewed on their individual merits and also on their merits relative to the entire applicant pool.

CLASS SIZE = 38

Demographic Profile

Age

Range 20-26
Mean 22
Median 22
Mode 22

Gender

Female.....18 (47%)
Male.....20 (56%)

Academic Profile

OAT Examination (200-400)

Overall Mean.....325
High.....370
Low.....300

Mean OAT scores by examination category:

AVG 325, QR 312, RC 334, PHY 315, BIO 322, GCHM 338, OCHM 327, SCI 327

Grade Point Average

Overall GPA
Overall Mean.....3.60
High.....3.97
Low.....3.08

General Information Profile

Applicants

Total Number.....	489
Number of Interviews.....	92
Resident Accepts.....	30
Non-Residents.....	8
Minority Accepts.....	2
Non-Minority Accepts.....	36
Non-Designated Accepts.....	0

Pre-Optometry Level/Degrees

Accepts with Bachelor's Degree.....	29
91 to 120 semester hours completed.....	9
Master's Degree.....	0
Doctorate degree.....	0

Summary of Principle Undergraduate College Attended

Alma College	1
Bemidji State University	1
Buena Vista University	1
Central Michigan University	3
Florida Atlantic University	1
Ferris State University	8
Grand Valley State University	5
Hope College	1
Lake Superior State University	1
Michigan State University	5
Saginaw Valley State University	1
Spring Arbor University	1
University of Michigan	2
University of Waterloo	2
University of Western Ontario	1
Utah State University	1
Western Michigan University	3

Profile of 2011 Entering Class
MCO Office of Student & Academic Affairs
June 28, 2011

The Michigan College of Optometry selects for admission to the Doctor of Optometry degree program the most qualified resident and non-resident applicants who demonstrate high intellectual/academic performance and clinical potential (personal qualities and accomplishments). An in-depth knowledge of the optometry profession is recommended to further enhance the application. All applicants are reviewed on their individual merits and also on their merits relative to the entire applicant pool.

CLASS SIZE = 38

Demographic Profile

Age

Range 20-26
Mean 22
Median 22
Mode 22

Gender

Female.....25 (74%)
Male.....13 (26%)

Academic Profile

OAT Examination (200-400)

Overall Mean.....317
High.....360
Low.....280

Mean OAT scores by examination category:

AVG 317, QR 310, RC 333, PHY 307, BIO 327, GCHM 322, OCHM 294, SCI 311

Grade Point Average

Overall GPA
Overall Mean.....3.50
High.....4.00
Low.....2.85

General Information Profile

Applicants

Total Number.....	401
Number of Interviews.....	77
Resident Accepts.....	28
Non-Residents.....	10
Minority Accepts.....	1
Non-Minority Accepts.....	34
Non-Designated Accepts.....	3

Pre-Optometry Level/Degrees

Accepts with Bachelor's Degree.....	28
91 to 120 semester hours completed.....	10
Master's Degree.....	0
Doctorate degree.....	0

Summary of Principle Undergraduate College Attended

Aquinas	1
Central Michigan University	2
Concordia College	1
Cornerstone University	1
Ferris State University	15
Grand Valley State University	3
Lake Superior State University	1
Michigan State University	4
Oakland University	1
St. Cloud State University	1
University of Michigan	1
University of Minnesota	1
University of North Dakota	1
University of Northern Iowa	1
University of Windsor	1
Wayne State University	2
Western Michigan University	1



Full-Time and Part-Time Enrollment in Professional O.D. Programs
1999-2011

Year	Full-Time	Part-Time	Total
1999-2000	5464	8	5472
2000-2001	5428	5	5433
2001-2002	5414	9	5423
2002-2003	5362	25	5387
2003-2004	5354	19	5373
2004-2005	5369	13	5382
2005-2006	5377	22	5399
2006-2007	5488	39	5527
2007-2008	5556	15	5571
2008-2009	5595	21	5616
2009-2010	5832	15	5847
2010-2011	6060	4	6064

Updated August 4, 2011

MCO Externship Sites

Andersen Eye Center
Art Optical
Balian Eye Center
Battle Creek VAMC
Boling Eye/South Bend Clinic
Cherry Street Health Service
John Dingell (Detroit) VAMC
WJB Dorn VA
Eaton Rapids Optometry
Eglin Air Force Base
Eye Care Associates Lee's Summit
Henry Ford Optimeyes
Garrett Eye Center
GR Ophthalmology – Cutlerville
Grand Rapids VA
Drs. Hawkins and Mageau
Heartland Eye Consultants
Holt Eyecare
Kresge Eye Institute
Lansing Ophthalmology
Aleda Lutz VAMC
Manning Rd Optometric
Minneapolis VA
MCO/ University Eye Center
MSU CC
National Naval Medical Center
Pawnee IHS
Rosenbaum Clinic
Shoreline Vision
Special Needs Vision Clinic
St Mary's Hospital
Tuscaloosa
VA N Indiana Ft Wayne
Duane Waters Hospital – SPSM
WOW/Family Vision

NBEO Results

NBEO PART 1 ABS (Basic Science for Previous years)				
YEAR	% PASS	PASS/ CLASS SIZE	NATIONAL PASS %	PERCENT DIFFERENCE
2011	89.19	33/37	72	17.19
2010	96.96	32/33	85.1	11.86
2009	94.6	35/37	81.33	13.27
2008	Not administered			
2007	94.1	32/34	74.8	19.3
2006	73	21/29	77.4	-4.4
2005	78	26/33	71.6	6.4

NBEO PART II (PAM) (clinical science for previous years)				
YEAR	% PASS	PASS/ CLASS SIZE	NATIONAL PASS %	PERCENT DIFFERENCE
2011				
2010	100	33/33	90.88	9.12
2009	97.37	37/38	90.61	6.76
2008	94.11	32/34	89.6	4.51
2007	92.9	27/29	91.5	1.4
2006	88	29/33	88.7	-0.7
2005	93.9	31/33	91.7	2.2

NBEO PART III (Patient Care)				
YEAR	% PASS	PASS/ CLASS SIZE	NATIONAL PASS %	PERCENT DIFFERENCE
2011				
2010	100	38/38	95.9	4.1
2009	100	34/34	94	6
2008	96.6	28/29	91.28	5.32
2007	100	33/33	96	4
2006	85	28/34	93	-8
2005	100	31/31	90.3	9.7

NBEO content comparison

A comparison of the 2010 and 2011 Part I ABS NBEO performance to National Performance:

	2010	2011
Pass rate	96.97%	89.19%
Z-score: overall compared to national average	+0.18	+ 0.24
Z-score: By Discipline and Content Area		
Discipline A – Anatomy	-0.22	+ 0.18
Discipline B - Biochem/physiology	-0.06	+ 0.16
Discipline C – Imm/micro/pathology	+ 0.36	+ 0.08
Discipline D – Optics	+ 0.26	+ 0.35
Discipline E – Pharmacology	+ 0.16	+ 0.09
Content area A – Refract/sens/ocmotor	+ 0.26	+ 0.34
Content area B – Disease/trauma	+ 0.11	+ 0.15

Residency statistics for MCO Graduates	2005	2006	2007	2008	2009	2010
Number of graduating students	31	34	33	29	35	38
Number of student applicants for residency	8	9	9	9	15	15
Number of students successfully placed in residency	6	7	7	8	14	11
Percentage of applicants successfully placed in residency	75.0	78	78	89	93.33	73

BACKGROUND

In response to the mandate of the 1990-94 contract between the Board of Trustees of Ferris State University and the Ferris Faculty Association, a workload policy was adopted for the Michigan College of Optometry (then the College of Optometry).

There was a process that resulted in that workload policy. A draft was formulated by a faculty committee. Some brief discussion of the draft followed. The Dean of the College then submitted a policy to the Vice President for Academic Affairs, who accepted it as submitted. The policy that was submitted and accepted was not the one proposed by the faculty and it had not been adopted by the faculty at the time.

The College workload policy that went into place met an immediate need. It was somewhat simplistic in its nature and, among other shortcomings, did not state fully what it meant to be a faculty member at the Michigan College of Optometry.

Since that time, the faculty and administration of MCO have worked within the framework of that policy.

Several actions have precipitated the development of a revised policy. The current one is 17 years old and doesn't meet MCO's evolving needs.

Historically, the faculty has been and is given work load credit for activities that are not specified in the policy. In addition, class sizes have increased, a recently completed major curriculum revision resulted in didactic courses added to the summer semester (15 credit hours) and the total credit hours in the program increased by 8 credit hours (5%). Also, the curriculum revision resulted in optometry faculty teaching 9 additional credit hours previously taught by other FSU faculty. Average workloads are continuing to creep upward and the variability of annual load in the current policy is too broad to be practical. Beyond that there is strong feeling that the original workload policy never addressed the expectations of faculty completely.

In response to these concerns, a faculty committee was formed and, with the consent of the MCO faculty, is proposing the following policy.



WORKLOAD POLICY

Mission Statement

The Michigan College of Optometry prepares doctoral and post-doctoral students for successful professional careers, responsible citizenship, and lifelong learning. Through its clinically-based education and patient care, the Michigan College of Optometry serves the optometric health care needs of society.

This mission is accomplished by the work of faculty and staff.

Faculty responsibilities are traditionally categorized into three areas – teaching, scholarly activities, and professional service. Woven into this historical definition is the fact that most faculty members at MCO have patient care and clinical education responsibilities.

This policy attributes credit toward workload for traditional faculty activities that are readily measurable. This is by no means an exhaustive list of activities in which faculty members are expected to engage. The allotment of credit for measurable activities assumes that the faculty member is performing these activities adequately and appropriately, and is engaged in all of the other non-credited activities expected of their rank and position.

Some, but certainly not all, of these activities include preparation for the measured activities such as lecture, lab, and clinical responsibilities. Less definable, but also expected, is active participation in committee and counseling assignments and an appropriate level of scholarly activity.

Historically, MCO has had in its workload an instructional emphasis, which is retained. The balance would be characterized as approximately 80-10-10, teaching, scholarly activities, and service respectively.

By agreement with the Dean, faculty members are given additional workload credit for activities that constitute scholarly activity or professional service if they are beyond the normal expectations in these areas. This allows for workload credit to be given for substantial commitments to research, special and time-intensive ad hoc committee assignments, or professional leadership roles.

The following table defines the credit toward workload for the Michigan College of Optometry for assigned activities. An underlying assumption is relative stability in faculty-to-student ratios in classroom, laboratory, and clinical instruction. If any of these variables changes, the Dean will reapportion workload credit accordingly.

TEACHING WORKLOAD
MICHIGAN COLLEGE OF OPTOMETRY

Based on 100 point system per semester/annualized for the year.

The basis for the allocation of points is the historical assumption of three hours of preparation and management for each lecture hour presented and one hour of preparation for each laboratory contact hour. This workload assumes 36 students per class. A significant increase in class size would result in a workload credit increase for lecture and laboratory.

<u>Activity</u>	<u>Description</u>	<u>Points</u>
Lecture {Fall & Spring}	Standard ¹ (36 students)	12/credit hr
	First time taught ²	13/credit hr
	Course coordinator [per team taught course]	1/credit hr
Lab {Fall & Spring}	Instructor ³	6/contact hr
	Lab coordinator [per team taught lab]	1/credit hr
Summer Lecture	Standard ¹	18/credit hr
	First time taught ²	19/credit hr
	Course coordinator [per course] [per team taught course]	1/credit hr
Summer Lab	Instructor	9/contact hr
Clinical Instruction {Fall & Spring}		5/contact hr
Summer Clinical Instruction		7/contact hr
Senior projects (credit limit 3 projects) {Spring semester}		2/project (credit limit 3 projects)
Approved vacation	12 month faculty	33 points {summer only}

1. Standard workload of 12 points/credit hour for teaching is based on 36 students per class. This number should increase with an increase in class size since there is inherently more work. It is recognized the actual "lecture" portion of the classes will not change but the additional duties of grading exams, counseling students, etc. will increase. For example, if enrollment were to reach 40 students, 13 points should be given per "lecture hour". As the class size increases, subsequent increases in workload should be given; e.g. 40 students =

13 pts/lecture hour, 44 students = 14 pts/lecture hour. Summer workload should be adjusted accordingly.

2. First Time Taught means the first time a faculty member has taught that particular course and/or that course material. This would include team teaching of a portion of a course, if it were the first time.

3. Each laboratory has established an ideal student to faculty ratio. Standard workload of 6 points/contact hour for laboratory teaching is based on 18 students per laboratory section. If the number of students in a laboratory section increases, additional faculty should be assigned to maintain the ideal established student to faculty ratio or subsequent increases in workload should be given; e.g. 19-22 students = 7 pts/contact hour and 23-26 students = 8 pts/contact hour. Summer workload should be adjusted accordingly.

A full teaching load is considered to be 100 points per semester, but may range from 92 to 108 any given semester. Efforts will be made to maintain interfaculty workloads within this range. At the discretion of the faculty member, an annualized year overload (defined as any load over 100 points) can be either compensated at the end of the year as per the prevailing FSU/FFA contract, or the faculty member can agree to a reduction in load in subsequent semesters to achieve an annualized load within the prescribed range.

In addition, when a position exists requiring administrative duties, and the position is filled by a faculty member, the faculty member is allocated workload credit and/or a stipend for the reassigned responsibilities. A list of these duties and specific allocation is to be maintained in the MCO Faculty Reassignment Policy, which is separate from this policy.

SCHOLARLY ACTIVITY WORKLOAD

MICHIGAN COLLEGE OF OPTOMETRY

Presumed in this workload is that each faculty member will spend on average approximately four (4) hours per week in the areas of research and scholarship. This allotment includes time for the following types of activities:

basic and clinical research, publication, grant writing, preparing and presenting continuing professional education, presentations of research, etc.

In addition, a faculty member may apply for additional workload credit for basic or applied research via a formal process equivalent to the Ferris Faculty Research Grant Program with a required outcome of a poster, presentation or paper of publishable quality. The MCO Faculty Development and Research committee will review proposals and submit recommendations for final approval to the Dean.

SERVICE WORKLOAD

MICHIGAN COLLEGE OF OPTOMETRY

Presumed in this workload is that each faculty member will spend on average approximately four (4) hours per week in the area of service. This allotment includes time for the following types of activities:

membership on College and University committees, representing the profession to other organizations, membership in professional organizations, etc.

FACULTY REASSIGNMENT POLICY

When a position in the college exists requiring administrative duties, and the position is filled by a faculty member, the faculty member is allocated the following workload credit and/or a stipend for the reassigned responsibilities. The amount of workload credit for each activity is to be reviewed by the Dean and the Faculty yearly and is subject to change in response to growth or contraction of responsibilities and/or changes in the mission of the college. The final decision regarding the amount of allocation and/or the decision to continue these activities lies with the Dean. The decision by a faculty member to accept reassignment is voluntary and is contingent on the ability of the faculty member to return to full-time teaching duties with reasonable notice.
 October 11, 2010

Clinic Chiefs	10
Residency Supervisor	20
Director of Residencies	25
Director Continuing Education	20
Director Externships	25
Coordinator Student Recruitment	25
Coordinator Alumni and Development	25
Admissions Committee	4/ hr of interview
Director Community Outreach	33
Director Grand Rapids	25

Additional administrative duties, when performed by a faculty member, will be given appropriate workload credit. These might include such assignments as responsibilities associated with accreditation including self study oversight.

Faculty Development Fund Policy
Mission Statement

The Michigan College of Optometry prepares doctoral and post-doctoral students for successful professional careers, responsible citizenship, and lifelong learning. Through its clinically-based education and patient care, the Michigan College of Optometry serves the optometric health care needs of society. A primary goal and subsequent objectives outlined to fulfill the mission of the college is as follows:

- Recruiting and retaining a highly qualified and diverse faculty
 - Developing faculty by encouraging innovation in academic and clinical education and scholarly activity
 - Providing funding and time for developing teaching and clinical skills, research programs, and scholarly presentations

The college budget, at the dean's discretion, will provide funds in support of faculty development as stated in the above goal. These funds will be divided equally among the faculty and disbursed for the following activities/resources:

- 1) Travel, lodging, conference fees, continuing education course fees and all other usual and customarily reimbursed fees and expenses (meal allowances, parking, mileage to/from home/airport, to/from airport/conference site, etc.) to conferences related to optometric education, clinical training, and/or research.
- 2) Books, equipment, and other media resources for developing teaching and/or clinical skills.
- 3) Any other activity/resource as deemed appropriate by the Dean to support an individual's faculty development.

The amount of funding available per faculty will be communicated by the Dean at the beginning of each fiscal year. The amount of funds exhausted for any particular activity/resource will be at the discretion of the faculty member, as long as he/she does not exceed the yearly allotment. Funds beyond the yearly allotment may be obtained only with approval from the Dean. Funds utilized for course development, administrative duties, or other activities assigned to faculty will not be deducted from the yearly allotment.

CLINICAL ADJUNCT FACULTY

Manoj Abraham, O.D.
Teresa Aris, O.D.
Jason Baldwin, O.D.
David Barrett, M.D.
Heidi Bauer Skelley, O.D.
Elizabeth Becker, O.D.
Jason Bennett, O.D.
Kara Bisceglia, O.D.
Kyle Booher, O.D.
Aaron Case, O.D.
Mary Pat Chelsky, O.D.
Emily Coles, O.D.
Lori Comparoni, O.D.
Douglas Coon, O.D.
Kiersten Coon, O.D.
Luciana Coscione, O.D.
Jay Crank, O.D.
Angela Cumming, O.D.
William Denton, O.D.
Amy Dinardo-Lotoczky, O.D.

Mitchell Dobrzelewski, O.D.
Jason Donahue, O.D.
Daniel Dudley, O.D.
David Durkee, O.D.
Kevin Egan, O.D.
Eric Eggenberger, D.O.
Phillip Elston, O.D.
Paul Ernest, M.D.
Robert Finlay, O.D.
Mary Fisher, O.D.
Jason Fliegel, O.D.
Robert Foote, O.D.
Gregory Ford, O.D.
Daniel Fortenbacher, O.D.
Chad Gallatin, O.D.
Richard Gardner, O.D.

J.M. Garrett, M.D.
Paul Gayeff, O.D.
Arlene Gold, O.D.

**CLINICAL ADJUNCT FACULTY
(con't.)**

Darrell Grise, O.D.
Dean Hartwig, O.D.
Douglas Herriott, O.D.
William Hooker, O.D.
Kelly Indovina, O.D.
Bryan Johnson, O.D.
Matthew Johnson, O.D.
Christian Jordan, O.D.
Lillian Thorp Kalaczinski, O.D.
David Kaufman, D.O.
Jeffrey Kenyon, O.D.
Laura Kenyon, O.D.
Joy Kerns, O.D.
C. Steven Kocks, O.D.
Dolores Kowalski-Meier, O.D.
Chris Kramer, O.D.
Jennifer Lambart, O.D.
Kathy Lewis, O.D.
Glen Linsley, O.D.
Ann Madden, O.D.
Blas Mamaril, O.D.
Veronica Marietta, O.D.
John Marohn, O.D.

Susan McCutcheon, O.D.
William McGill, O.D.
Molly McGinty-Tauren, O.D.
Joshua Metzger, O.D.
Bernard Miller, O.D.
Robert L. Morgan, O.D.
Wendy Moyle, O.D.
Frederick M. Nista, O.D.

David Oosting, O.D.
Dennis Pace, O.D.
Michael Pattison, O.D.
B. Jeffrey Pulk, O.D.
E. Michael Raphtis, M.D.
Sara Schamerloh, O.D.
Scott Schomaker, O.D.
Traci Seng, O.D.
Karl Johannes Siebert, M.D.
Paula Smith, O.D.
Lindsey Stull, O.D.
Craig Swanson, O.D.
Douglas Totten, O.D.
Michael Vandever, O.D.

CLINICAL ADJUNCT FACULTY
(con't.)

Jeanette Varanelli, O.D.
Jeffrey Varanelli, O.D.
Jack Veith, O.D.
Mark A. Ventocilla, O.D.
David Verdier, M.D.
Curtis Wee, O.D.
Harper Wildern, O.D.
David Williams, O.D.
Annette Williamson, O.D.
Elizabeth Yates, O.D.
Sunita Yedavally, D.O.

Assessment Plan
 Ferris State University
 Program - Optometry (O.D.)

Program - Optometry (O.D.)

Mission Statement: The Michigan College of Optometry prepares doctoral and post-doctoral students for successful professional careers, responsible citizenship, and lifelong learning. Through its clinically-based education and patient care, the Michigan College of Optometry serves the optometric health care needs of society.

Advisory Board/Committee Twice per year

Meetings:

Next FSU Academic 2011-2012

Program Review:

Accreditation Body: Accreditation Council on Optometric Education (ACOE)

Academic Year of Next 2012-2013

Accreditation Review:

College: MCO

Outcome: Course grades and pass rates

Measure grades and pass rates for classes.

Outcome Type: Learning

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion for Success	Assessment Schedule	Active
Review of grades and recommendation of Academic Review Committee.	94% of students matriculate.	Bimonthly	Yes

Related Courses

- BIOL 438 - Microbiology for Optometry
- OPTM 511 - Introduction to Optometry
- OPTM 514 - Ethics Dr-Patient Relationship
- OPTM 524 - Geom-Phys-Visual Optics 1
- OPTM 525 - Geom-Phys-Visual Optics 2
- OPTM 526 - Vision Science 1
- OPTM 530 - Biochm-Proteomics-Genomics
- OPTM 534 - Ocular Anatomy and Physiology
- OPTM 537 - Anatomy-Physiology for Opt 1
- OPTM 538 - Anatomy-Physiology for Opt 2
- OPTM 543 - Optometric Procedures 1
- OPTM 615 - Practice Management 1
- OPTM 627 - Vision Science 2
- OPTM 628 - Ophthalmic Optics
- OPTM 629 - Ophthalmic Dispensing Lab
- OPTM 630 - General Pathology
- OPTM 635 - Neuroanatomy - Neurophysiology
- OPTM 636 - Diag-Treatment Anterior Segmen
- OPTM 638 - General - Ocular Pharmacology
- OPTM 644 - Optometric Procedures 2
- OPTM 645 - Diag Accom-Binocular Dysfunct
- OPTM 648 - Contact Lenses 1
- OPTM 657 - Clinical Problem Solving 1

- OPTM 717 - Public Health and Optometry
- OPTM 718 - Practice Management 2
- OPTM 730 - Phys Exam-Diagnostic Procedure
- OPTM 732 - Pharmacological Mgmt Ocular
- OPTM 734 - Diagnosis - Treat of Glaucoma
- OPTM 735 - Laser and Refractive Surgery
- OPTM 736 - Diag - Treat Posterior Segment
- OPTM 737 - Adv Ocular Disease-Surg Mgmt
- OPTM 738 - Injectable Pharmaceuticals Lab
- OPTM 739 - Clinical Neuro-Optometry
- OPTM 741 - Dev-Behavioral Pediatric Opt
- OPTM 743 - Environmental Vision
- OPTM 744 - Optometric Gerontology
- OPTM 745 - Low Vision - Geriatric Vision
- OPTM 746 - Treatment ACC/BINOC Dysfunc
- OPTM 749 - Contact Lenses 2
- OPTM 751 - Optometry Clinic 3-1
- OPTM 752 - Optometry Clinic 3-2
- OPTM 753 - Optometry Clinic 3-3
- OPTM 758 - Clinical Problem Solving 2
- OPTM 759 - Clinical Problem Solving 3
- OPTM 811 - Web Seminar 1
- OPTM 812 - Web Seminar 2
- OPTM 813 - Web Seminar 3
- OPTM 817 - Research Project
- OPTM 854 - Clinical Practice 1
- OPTM 855 - Clinical Practice 2
- OPTM 856 - Clinical Practice 3

Outcome: Student Assessment of Instruction

Student assessment of instruction and site.

Outcome Type: Learning

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion for Success	Assessment Schedule	Active
Surveys by students of faculty using SAI process at FSU.	Overall 95% satisfaction of students.	After each semester.	Yes
Survey students for evaluation of site. Assessment Method Category: Internship Evaluation	Sites meet overall 95% satisfaction with students.	After each semester.	Yes

Related Courses

- BIOL 438 - Microbiology for Optometry
- OPTM 511 - Introduction to Optometry
- OPTM 514 - Ethics Dr-Patient Relationship
- OPTM 524 - Geom-Phys-Visual Optics 1

- OPTM 525 - Geom-Phys-Visual Optics 2
- OPTM 526 - Vision Science 1
- OPTM 530 - Biochm-Proteomics-Genomics
- OPTM 534 - Ocular Anatomy and Physiology
- OPTM 537 - Anatomy-Physiology for Opt 1
- OPTM 538 - Anatomy-Physiology for Opt 2
- OPTM 543 - Optometric Procedures 1
- OPTM 615 - Practice Management 1
- OPTM 627 - Vision Science 2
- OPTM 628 - Ophthalmic Optics
- OPTM 629 - Ophthalmic Dispensing Lab
- OPTM 630 - General Pathology
- OPTM 635 - Neuroanatomy - Neurophysiology
- OPTM 636 - Diag-Treatment Anterior Segmen
- OPTM 638 - General - Ocular Pharmacology
- OPTM 644 - Optometric Procedures 2
- OPTM 645 - Diag Accom-Binocular Dysfunct
- OPTM 648 - Contact Lenses 1
- OPTM 657 - Clinical Problem Solving 1
- OPTM 717 - Public Health and Optometry
- OPTM 718 - Practice Management 2
- OPTM 730 - Phys Exam-Diagnostic Procedure
- OPTM 732 - Pharmacological Mgmt Ocular
- OPTM 734 - Diagnosis - Treat of Glaucoma
- OPTM 735 - Laser and Refractive Surgery
- OPTM 736 - Diag - Treat Posterior Segment
- OPTM 737 - Adv Ocular Disease-Surg Mgmt
- OPTM 738 - Injectable Pharmaceuticals Lab
- OPTM 739 - Clinical Neuro-Optometry
- OPTM 741 - Dev-Behavioral Pediatric Opt
- OPTM 743 - Environmental Vision
- OPTM 744 - Optometric Gerontology
- OPTM 745 - Low Vision - Geriatric Vision
- OPTM 746 - Treatment ACC/BINOC Dysfunc
- OPTM 749 - Contact Lenses 2
- OPTM 751 - Optometry Clinic 3-1
- OPTM 752 - Optometry Clinic 3-2
- OPTM 753 - Optometry Clinic 3-3
- OPTM 758 - Clinical Problem Solving 2
- OPTM 759 - Clinical Problem Solving 3
- OPTM 811 - Web Seminar 1
- OPTM 812 - Web Seminar 2
- OPTM 813 - Web Seminar 3
- OPTM 817 - Research Project
- OPTM 854 - Clinical Practice 1
- OPTM 855 - Clinical Practice 2
- OPTM 856 - Clinical Practice 3

Outcome: Graduation rates

Rate of students that graduate from Michigan College of Optometry

Outcome Type: Learning**Outcome Status:** Active

Means of Assessment			
Assessment Method	Criterion for Success	Assessment Schedule	Active
Review graduation rates for students.	94% of students who enter the Michigan College of Optometry graduate from the school.	Yearly Review.	Yes

Related Courses

- OPTM 854 - Clinical Practice 1
- OPTM 855 - Clinical Practice 2
- OPTM 856 - Clinical Practice 3

Outcome: Proficiency Exams

Proficiency Exams for Students prior to Entering Clinic

Outcome Type: Learning**Outcome Status:** Active

Means of Assessment			
Assessment Method	Criterion for Success	Assessment Schedule	Active
Faculty observe and evaluate students using established criteria.	All students pass the proficiency.	Yearly Review.	Yes

Related Courses

- OPTM 543 - Optometric Procedures 1
- OPTM 644 - Optometric Procedures 2
- OPTM 751 - Optometry Clinic 3-1
- OPTM 752 - Optometry Clinic 3-2
- OPTM 753 - Optometry Clinic 3-3
- OPTM 854 - Clinical Practice 1
- OPTM 855 - Clinical Practice 2
- OPTM 856 - Clinical Practice 3

Outcome: Clinical Evaluations

Students evaluated in clinic by faculty members.

Outcome Type: Learning**Outcome Status:** Active

Means of Assessment			
Assessment Method	Criterion for Success	Assessment Schedule	Active
Faculty members observe students while students are performing patient care and report evaluation using e-value.	Overall 95% of students graded 3 or higher (scale 1-5) on performance.	After each semester.	Yes

Related Courses

- OPTM 751 - Optometry Clinic 3-1

- OPTM 752 - Optometry Clinic 3-2
- OPTM 753 - Optometry Clinic 3-3
- OPTM 854 - Clinical Practice 1
- OPTM 855 - Clinical Practice 2
- OPTM 856 - Clinical Practice 3

****Unit Assessment Report - Four Column**

**Ferris State University
Program - Optometry (O.D.)**

Mission Statement: The Michigan College of Optometry prepares doctoral and post-doctoral students for successful professional careers, responsible citizenship, and lifelong learning. Through its clinically-based education and patient care, the Michigan College of Optometry serves the optometric health care needs of society.

Advisory Board/Committee Meetings: Twice per year

Next FSU Academic Program Review: 2011-2012

Accreditation Body: Accreditation Council on Optometric Education (ACOE)

Academic Year of Next Accreditation Review: 2012-2013

College: MCO

Outcomes	Means of Assessment & Criteria for Success / Tasks	Results	Action & Follow-Up
<p>Program - Optometry (O.D.) - Course grades and pass rates - Measure grades and pass rates for classes.</p> <p>Outcome Types: Learning</p> <p>Outcome Status: Active</p>	<p>Assessment Method: Review of grades and recommendation of Academic Review Committee.</p> <p>Criterion for Success: 94% of students matriculate.</p>	<p>05/20/2010 - There were two first year students dismissed after spring semester, 2009. The appeal process for readmission to the program was completed with both students readmitted, one student was placed on a five year program and other readmitted to his class with probation requirements. There was one student who was granted medical leave from the program and has chosen not to return. The Academic Review Committee continues to develop remediation plans for any student who receives a D-, D or D+(placed on academic probation) in the curriculum. There were two students placed on academic probation after the fall semester of 2009. There was one student dismissed from the program after fall semester with no recommendation for readmission. The student appealed the decision and was denied. There are four students that are in the process of successfully completing five year programs. The Associate Dean encourages faculty to add course review sessions for those students with academic midterm warnings. Student tutor service was are also made available to students requesting additional assistance.</p> <p>Classification:</p>	

Outcomes	Means of Assessment & Criteria for Success / Tasks	Results	Action & Follow-Up
		<p>for those students with academic midterm warnings. Student tutor services are also made available to students requesting additional assistance.</p> <p>Classification: Criterion Met</p> <p>Action: 1 - No Action Required</p>	
<p>Program - Optometry (O.D.) - Student Assessment of Instruction - Student assessment of instruction and site.</p> <p>Outcome Types: Learning</p> <p>Outcome Status: Active</p>	<p>Assessment Method: Surveys by students of faculty using SAI process at FSU.</p> <p>Criterion for Success: Overall 95% satisfaction of students.</p> <p>Assessment Method: Survey students for evaluation of site.</p> <p>Assessment Method Category: Internship Evaluation</p> <p>Criterion for Success: Sites meet overall 95% satisfaction with students.</p>	<p>05/20/2010 - The SAI student evaluation of faculty results are reviewed after each semester by the Dean and Associate Dean of the college. All SAIs were of excellent quality with many positive comments. The SAIs and all the clinical evaluations for adjunct clinical faculty were of excellent quality.</p> <p>Classification: Criterion Met</p> <p>Action: 1 - No Action Required</p> <p>10/28/2009 - All SAIs were of excellent quality with many positive comments. SAIs were reviewed and of excellent quality for the one year temporary faculty member.</p> <p>Classification: Criterion Met</p> <p>Action: 1 - No Action Required</p> <p>05/20/2010 - 98.3% of Students were satisfied with their sites.</p> <p>Classification: Criterion Met</p> <p>Action: 1 - No Action Required</p> <p>08/08/2008 - The SAIs and all the clinical evaluations for adjunct clinical faculty were of excellent quality.</p> <p>Classification: Criterion Met</p>	

Outcomes	Means of Assessment & Criteria for Success / Tasks	Results	Action & Follow-Up
		<p>Criterion Met</p> <p>Action: 1 - No Action Required</p> <p>10/28/2009 - There were two first year students dismissed afterspring semester, 2009. The appeal process for readmission to the program is not completed at this time. The Academic Review Committee continues to develop remediation plans for any student who receives a D-, D or D+(placed on academic probation) in the curriculum. There were four students placed on academic probation after the spring semester of 2008. There was one student placed on academic probation after the fall semester of 2008. There are four students that are successfully in the process of completing five year programs. The Associate Dean encourages faculty to add course review sessions for those students with academic midterm warnings. Student tutor services are also made available to students requesting additional assistance.</p> <p>Classification: Criterion Met</p> <p>Action: 1 - No Action Required</p>	
		<p>08/08/2008 - Of first year students, 94.4% continued to second year. There was one student dismissal of a first year student after fall semester. The student was re-admitted under a five year curriculum plan. One student was required to retake a first year course taken spring semester during the following summer term. The Academic Review Committee continues to develop remediation plans for any student who receives a D-, D or D+(placed on academic probation) in the curriculum. There were four students placed on academic probation after the spring semester of 2007. There were two students placed on academic probation after the fall semester of 2007. The Associate Dean encourages faculty to add course review sessions</p>	

Results			
Result	Action	Follow-Up	Action
05/20/2010 - For 2nd and 3rd year students, 100% received a grade of 3 or higher on overall performance for FY10. Classification: Criterion Met			1 - No Action Required
07/31/2009 - For 2nd and 3rd year students, 100% received a grade of 3 or higher on overall performance. Classification: Criterion Met			1 - No Action Required

Mission Statement

The Michigan College of Optometry prepares doctoral and post-doctoral students for successful professional careers, responsible citizenship, and lifelong learning. Through its clinically-based education and patient care, the Michigan College of Optometry serves the optometric health care needs of society.

Goals, Objectives and Assessments:

1. Maintaining and continuously developing a relevant curriculum

- 1.1. Assuring that the skills and attributes desired of students graduating from MCO are included in the curriculum.
 - 1.1.1. *NBEO pass rates and results*
 - 1.1.2. *Survey of graduating 4th year students on clinical relevance of course work and the skills acquired.*
 - 1.1.3. *Surveys and/or reports from residency site faculty and clinical faculty.*
 - 1.1.4. *Surveys and/or reports from alumni, the MCO advisory board and recent graduates.*
 - 1.1.5. *Graduate career placement reports (may use alumni surveys from recent grads).*
 - 1.1.6. *Instructor feedback on student assessment of courses and instruction (private).*
 - 1.1.7. *Report on how the AOA Clinical Practice Guidelines compare to the curricular content.*
- 1.2. Conducting ongoing track meetings to identify areas of needed improvement
 - 1.2.1. *Reports and minutes provided by respective track committees regarding curricular evaluations*
 - 1.2.2. *Description of actions taken as a result of curricular evaluations.*
 - 1.2.3. *Report on how the AOA Clinical Practice Guidelines compare to the curricular content.*
- 1.3. Determining what is relevant in current optometric practice
 - 1.3.1. *Surveys and/or reports from the MCO advisory group, alumni and recent graduates.*

1.3.2. Description of actions taken as a result of surveying alumni, recent graduates, and the advisory group.

- 1.4. Enhancing the integration of clinical components in the curriculum
 - 1.4.1. *Reports of curriculum track meetings assessing the integration of clinical concepts in all courses.*
 - 1.4.2. *Survey of graduating 4th year students on clinical relevance of course work and the skills acquired.*
 - 1.4.3. *Instructor feedback on student assessment of courses and instruction (private).*
 - 1.4.4. *Faculty evaluation of student clinical performance.*
 - 1.4.5. *NBEO pass rates and results in clinical and basic science sections.*
 - 1.4.6. *Report on how the AOA Clinical Practice Guidelines compare to the curricular content.*

- 1.5. Enhancing existing residencies and investigating the needs for additional residency or graduate programs
 - 1.5.1. *Residency accreditation reports.*
 - 1.5.2. *Resident survey reports on residency experiences.*
 - 1.5.3. *Residency faculty evaluations of resident performance.*
 - 1.5.4. *Survey of graduating 4th year students on need for residencies and graduate programs.*

- 1.6. Attaining and maintaining ACOE accreditation standards 6 and 9 pertaining to curriculum and residency education
 - 1.6.1. *Preparation of the necessary reports and documentation required by ACOE standards 6 and 9.*
 - 1.6.2. *Description of actions taken to address issues raised under standards 6 and 9 in the previous ACOE accreditation report.*

2. Recruiting, admitting and retaining highly qualified and diverse students

- 2.1. Continuing aggressive student recruitment efforts, including establishing a student recruitment officer.
 - 2.1.1. *Hiring of a student recruitment officer.*

- 2.1.2. *Annual log of student recruitment events at in and out-of-state institutions.*
- 2.1.3. *Annual log of pre-optometry advising sessions.*
- 2.1.4. *Minutes of student recruitment committee meetings.*
- 2.1.5. *Annual report of applicant pool numbers and characteristics.*

- 2.2. Increasing the number and availability of scholarships for students
 - 2.2.1. *Annual list of scholarships, monetary awards and funding sources for students.*

- 2.3. Continuing the development of the MCO website
 - 2.3.1. *Annual report and minutes of the Webpage and Technology Utilization Committee.*

- 2.4. Developing strategies to attract out-of-state, international, and under-represented minority students
 - 2.4.1. *Annual report and minutes of Diversity Committee.*
 - 2.4.2. *Annual report and minutes of the Student Recruitment Committee pertaining to the recruitment of out-of-state, international and under-represented minority students.*
 - 2.4.3. *Number of scholarships, monetary awards and funding sources for out-of-state, international and under-represented minority students.*
 - 2.4.4. *Report on collaborative efforts with international optometry programs.*
- 2.5. Promoting the use of student counseling services
 - 2.5.1. *Report on actions taken to promote the use of student counseling services.*

- 2.6. Enhancing tutoring programs
 - 2.6.1. *Description of current tutoring programs.*
 - 2.6.2. *Student surveys on the availability and efficacy of the tutoring program.*

- 2.7. Enhancing mentorship programs

- 2.7.1. Description of current mentorship programs.*
- 2.7.2. Student survey reports on efficacy of mentorship program.*
- 2.7.3. Documentation of current mentorship policies.*

2.8. Attaining and maintaining ACOE accreditation standard 5 pertaining to students.

2.8.1. Preparation of the necessary reports and documentation required by ACOE standard 5.

2.8.2. Description of actions taken to address issues under standard 5 in the previous ACOE accreditation report.

3. Recruiting and retaining a highly qualified and diverse faculty

3.1. Enhancing the promotion of the College's positive image, reputation, state-of-the-art facilities, and educational opportunities

3.1.1. Description of actions taken to promote the College's image, reputation, facilities, and educational opportunities

3.1.2. Description of actions taken to disseminate information of the College's accomplishments, progress and services.

3.1.3. Survey of graduating 4th year students on the College's image, reputation, facilities, and educational opportunities.

3.1.4. Surveys and/or reports from alumni and MCO advisory board regarding the College's image, reputation, facilities, and educational opportunities.

3.2. Developing faculty by encouraging service and innovation in academic and clinical education and scholarly activity

3.2.1. List of college, university, professional and community service by faculty.

3.2.2. List of publications in peer-reviewed and non-peer reviewed journals.

3.2.3. List of paper and poster presentations at local and national meetings.

3.2.4. List of current faculty grants.

3.2.5. Description of faculty participation in the provision of CE.

3.2.6. Minutes and reports by the Faculty research and development committee regarding development of policies that encourage research and scholarly activity.

- 3.2.7. *List of topics presented at the Faculty development seminars.*
- 3.2.8. *List of current and new faculty fellows to professional Optometric organizations.*
- 3.2.9. *List of funding sources and amounts obtained for faculty service, professional development and scholarly activity.*
- 3.2.10. *List of faculty obtaining release time and amount granted for service, professional development and scholarly activity.*

3.3. Attaining and maintaining ACOE accreditation standard 4 pertaining to faculty.

- 3.3.1. *Preparation of the necessary reports and documentation required by ACOE standard 4.*
- 3.3.2. *Description of actions taken to address issues under standard 4 in the previous ACOE accreditation report.*

4. Providing high quality patient care and clinical education in all clinical facilities and locations

4.1. Continuing to evaluate and incorporate appropriate technology in the clinic

- 4.1.1. *Survey the advisory group, alumni and graduating 4th year students regarding the availability of appropriate technology in the clinic.*
- 4.1.2. *Reports on the purchase of new equipment and/ or the incorporation of technology aimed at enhancing clinical instruction.*

4.2. Continuing to evaluate the quality of patient care in all clinics.

- 4.2.1. *Survey patients regarding the perceived quality of care in all clinical facilities and locations.*
- 4.2.2. *Percentage of returning patients.*

4.3. Enhancing the University Eye Center's status as a referral center and a provider for managed care plans

- 4.3.1. *Number of referrals to MCO clinics from external sources.*
- 4.3.2. *Description of actions taken to promote the scope and diversity of eye care services offered at MCO.*

- 4.3.3. *List of managed care plans at MCO and faculty providers for each plan.*
- 4.3.4. *List of interdisciplinary collaboration.*

- 4.4. Identifying underserved regions or populations and developing plans for community-based services for those groups
 - 4.4.1. *Report on an epidemiological analysis of the demand for eye care services in Big Rapids, and surrounding areas including Grand Rapids.*
 - 4.4.2. *Number of clinics providing care to underserved regions or populations.*
 - 4.4.3. *Description of actions taken to increase the number of satellite clinics and eye care services offered to surrounding underserved areas.*

- 4.5. Participating in screening and public education programs that contribute to overall public health
 - 4.5.1. *List of screening events conducted by students and/ or faculty.*
 - 4.5.2. *Report on screening outcomes.*
 - 4.5.3. *A description of the public health education initiatives conducted by the college.*

- 4.6. Exploring the development of additional Grand Rapids clinics to expand patient care opportunities
 - 4.6.1. *Report on an epidemiological analysis of the demand for eye care services in Big Rapids and surrounding areas including Grand Rapids.*
 - 4.6.2. *List of satellite clinics established in Grand Rapids.*
 - 4.6.3. *Annual report on patient utilization rates of clinical services offered at Grand Rapids clinic sites.*

- 4.7. Enhancing interdisciplinary and inter-professional collaboration
 - 4.7.1. *Report on the participation of the college in interdisciplinary and inter-professional eye care services (eg. Diabetic clinic, MCOLES, Criminal Justice, Surveying).*
 - 4.7.2. *Survey participants regarding the perceived quality of care or benefit of the collaboration.*

4.8. Attaining and maintaining ACOE accreditation standard 3 and 7 pertaining to facilities, resources, patient management and patient care policies.

4.8.1. Preparation of the necessary reports and documentation required by ACOE standards 3 and 7.

4.8.2. Description of actions taken to address issues under standards 3 and 7 in the previous ACOE accreditation report.

5. Providing a facility and work environment that facilitates fulfillment of the mission

5.1. Continuing efforts to secure additional funding for the new building and its furnishings

5.1.1. Reports by the Alumni and Friends Committee regarding fundraising activities.

5.1.2. Descriptions of actions taken to secure additional funding from industry sources.

5.1.3. List of the funds derived from all sources of fundraising.

5.2. Maintaining equipment as funding becomes available to provide a state-of-the-art clinical and patient care education environment

5.2.1. Annual inventory of current clinical equipment.

5.2.2. Annual report by the equipment maintenance manager regarding requests for repair and actions taken to resolve requests.

5.2.3. Budget allocation report for equipment repair.

5.3. Identifying future facility needs on and off campus

5.3.1. Report on current clinical facilities status and needs.

5.3.2. Report on current teaching and research facilities status and needs.

5.3.3. Report on an epidemiological analysis of the demand for eye care services in Big Rapids and surrounding areas including Grand Rapids.

5.4. Attaining and maintaining ACOE accreditation standard 7 pertaining to facilities, equipment and resources.

5.4.1. Preparation of the necessary reports and documentation required by ACOE standards 7.

5.4.2. Description of actions taken to address issues under ACOE standard 3 in the previous ACOE accreditation report.

6. Enhancing positive relationships with alumni and other friends

6.1. Continuing to foster and develop the MCO Alumni Association

6.1.1. Reports by the Alumni and Friends Committee regarding efforts to develop the MCO Alumni Association.

6.1.2. Annual list of new members of the Alumni Association.

6.2. Hiring a development and continuing education officer

6.2.1. Hire a development and CE Officer.

6.3. Providing continuing professional education

6.3.1. Reports on CE offered by MCO.

6.3.2. Description of faculty participation in the provision of CE.

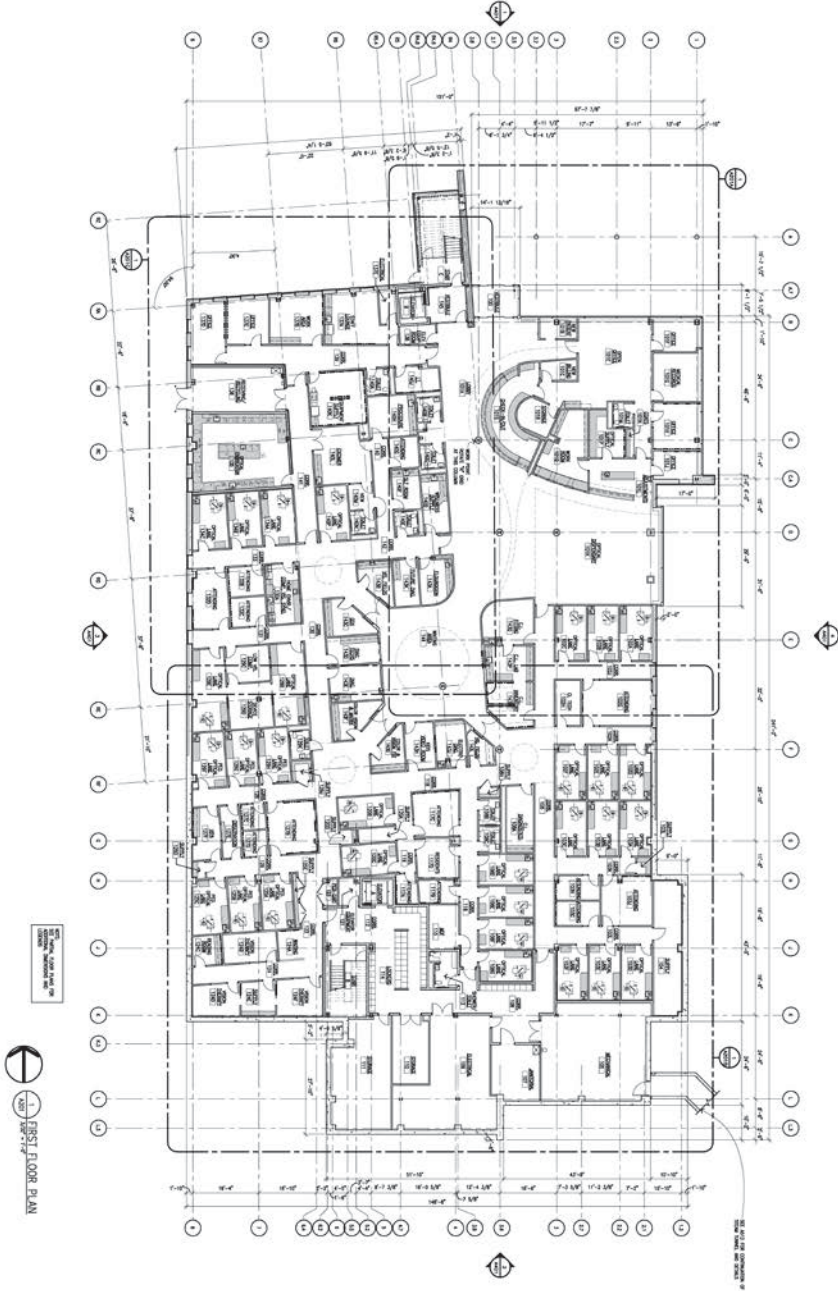
6.4. Developing relationships with industry, other educational institutions and government.

6.4.1. Reports on contacts and events with industry.

6.4.2. Reports on existing and potential collaboration with other educational institutions.

6.4.3. Reports on MCO involvement with government officials, bodies and policies.

MCO Floor plans



28109
 FSU School of Optometry
 2009
 FIRST FLOOR PLAN

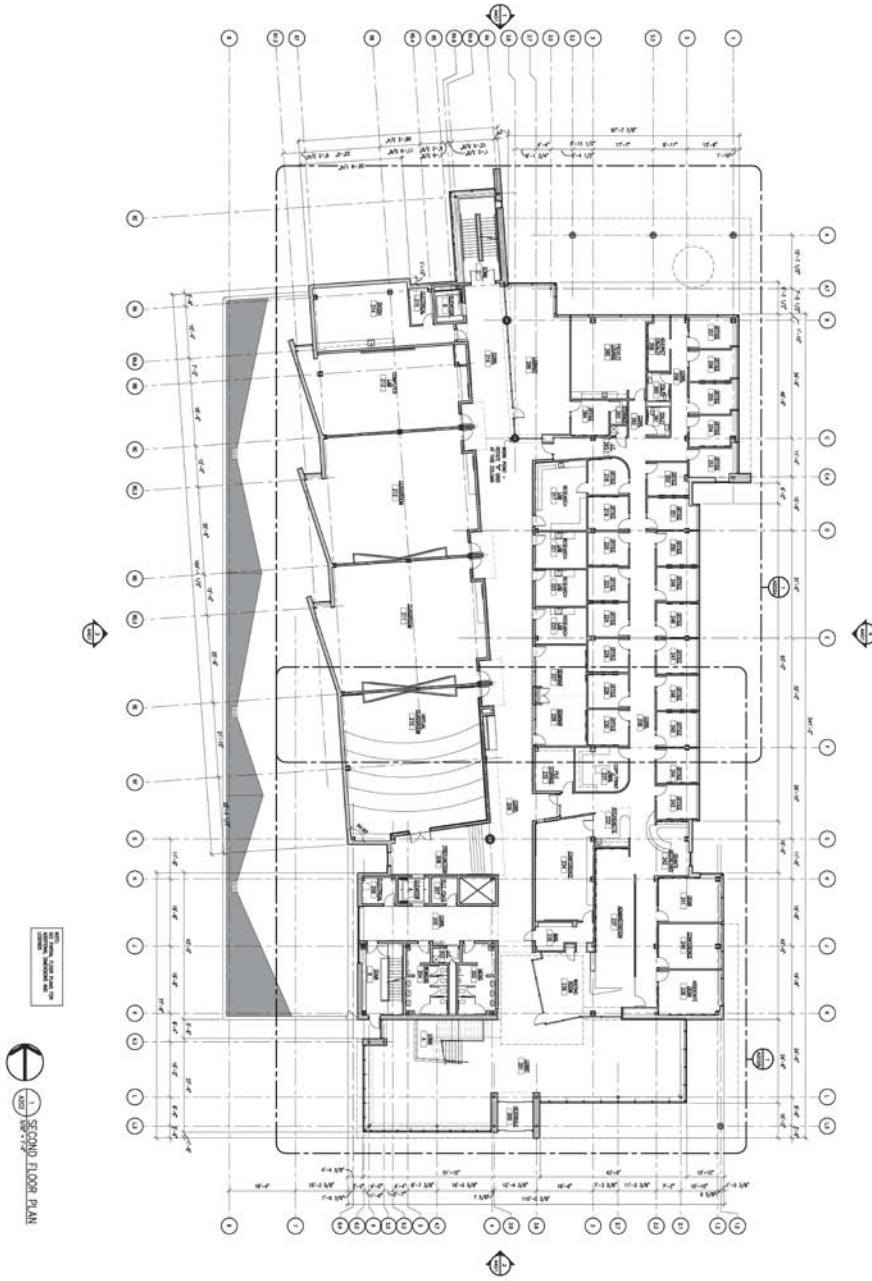
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11-16-09 Bill Package #2	Permit Bill Addendum #1
9-14-09 Bill Package #2	Issued For Bid
8-21-09 Bill Package #2	Issued For Review
7-17-09 Design Development	Permit Application
5-28-09 Design Development	Permit Application
4-4-09	Permit Application
3-11-09	Permit Application
2-19-09	Permit Application

28109
 FIRST FLOOR
 OVERALL PLAN
 Scale: 3/32" = 1'-0"
 A201

PERRY STATE UNIVERSITY
 Michigan
 College of
 Optometry
 and
 Center for
 Collaborative
 Health
 Big Rapids, Michigan

NEUMANN SMITH ARCHITECTS

407 Collins Center
 Grand Rapids, Michigan 49503
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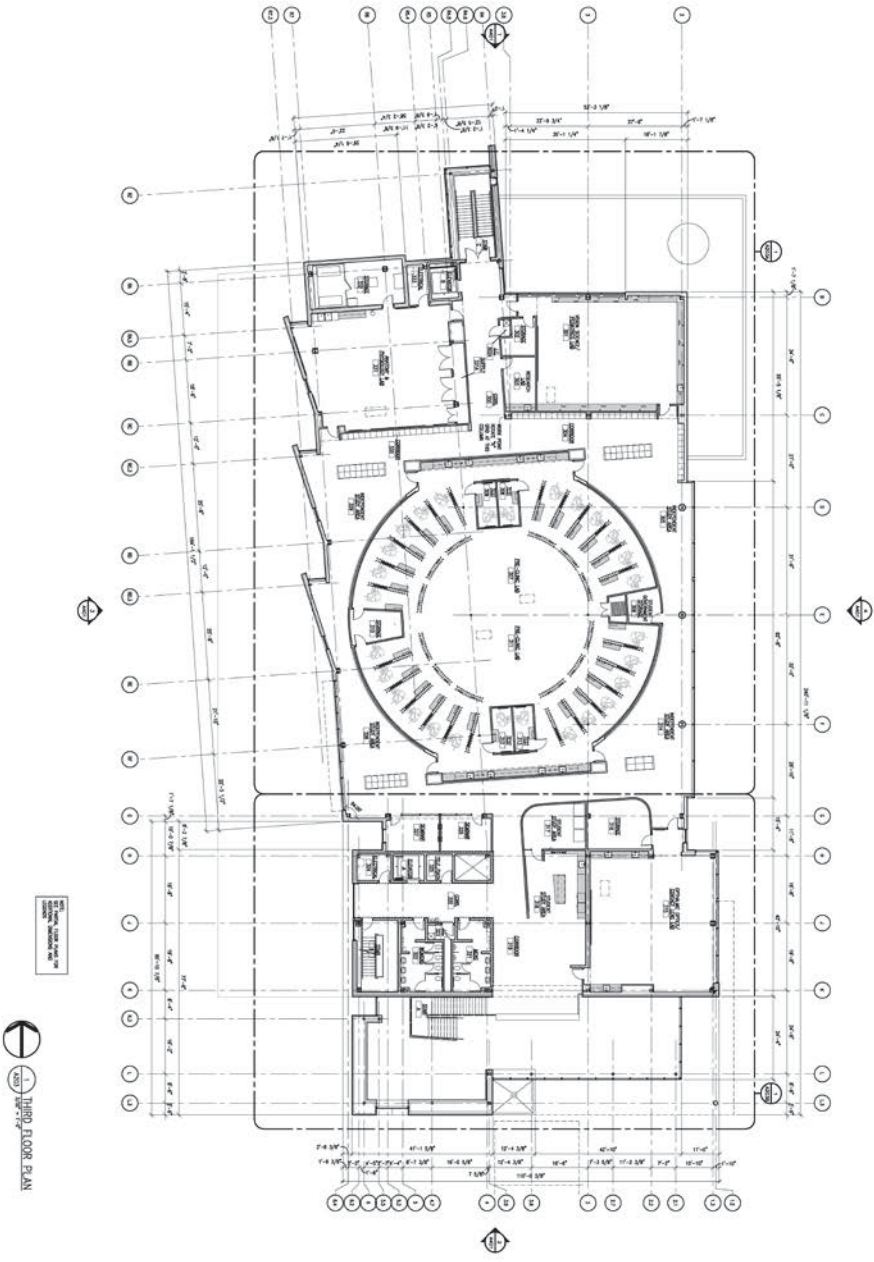


100 SECOND FLOOR PLAN

11-21-09 Bill Package #2
 Revised for Construction
 11-15-09 Bill Package #2
 Final Bid Addendum #1
 9-14-09 Bill Package #2
 Revised for Bid
 8-21-09 Bill Package #2
 Revised for Review
 7-27-09 Design Development
 5-28-09 Design Development
 Project Approval
 6-4-07-09
 28109
 SECOND FLOOR
 OVERALL PLAN
 Scale: 3/32" = 1'-0"
 A202

NEUMANN SMITH ARCHITECTS
 400 CHERRY CREEK DRIVE
 ANN ARBOR, MICHIGAN 48106
 PHONE 248 262 9110
 FAX 248 262 9111
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PURVIS STATE UNIVERSITY
 Michigan College of Optometry
 and
 Center for Collaborative Health
 Big Rapids, Michigan



11-21-09 Bill Package #2
Issued for Construction

11-16-09 Bill Package #2
Final Bid Addendum #1

9-14-09 Bill Package #2
Issued for Bid

8-21-09 Bill Package #2
Issued for Review

7-17-09 Design Development

5-28-09 Design Development

4-22-09

28109
THIRD FLOOR
OVERALL PLAN

Scale: 3/32" = 1'-0"

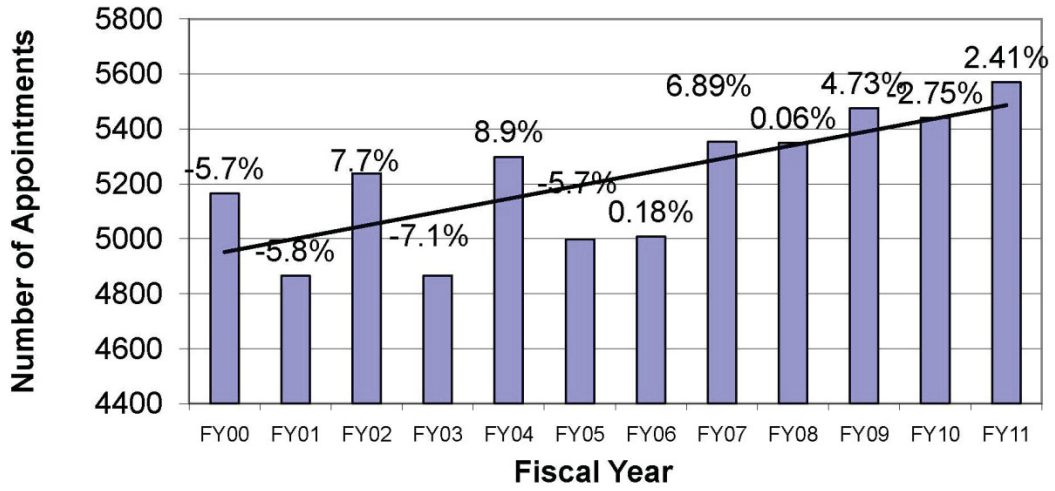
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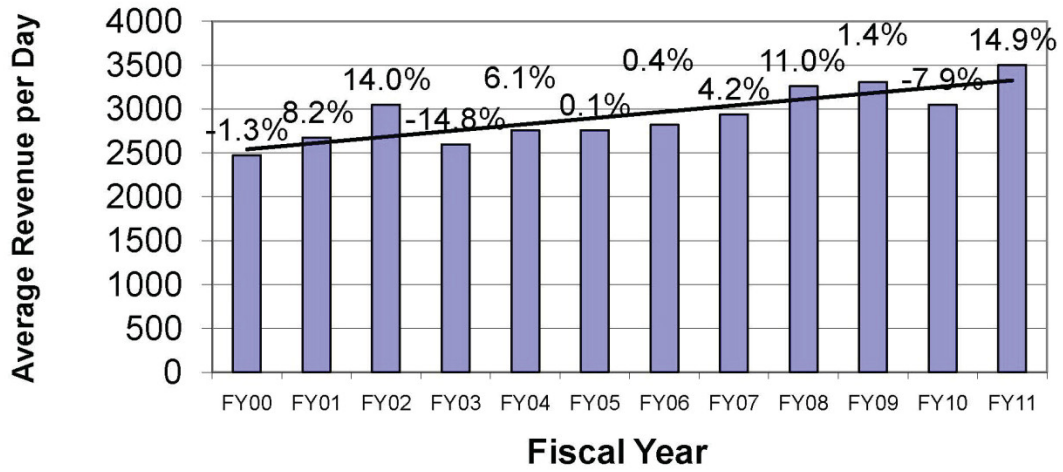
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Ann Arbor, MI 48106
Phone 734.262.8110
neumannsmith.com

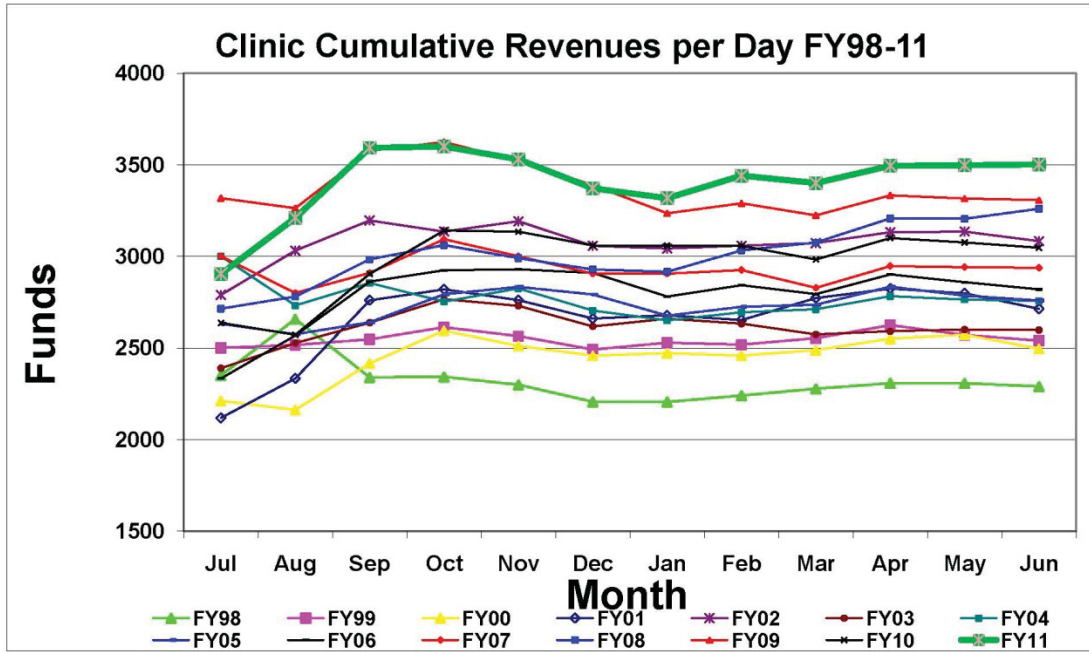
PETERSON UNIVERSITY
Michigan College of Optometry
and
Center for Collaborative Health
Big Rapids, Michigan

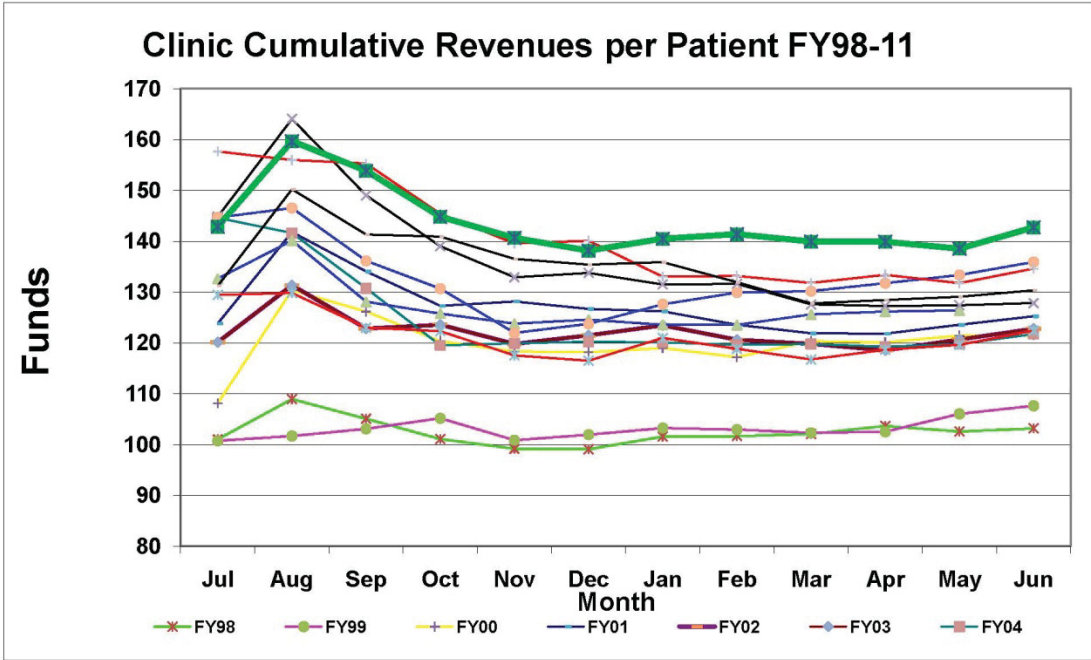
Total Appointments per FY00-11



Average Clinic Revenue per Day FY00-11







Resume of

Robert L. Carter, O.D., F.A.A.O.

20936 W. Madison 796-4738 Big Rapids, MI. 49307 cadimstr@aol.com	Phone: Home (231) email:
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CURRENT EMPLOYMENT:

Professor 591-2179 Michigan College of Optometry 591-2394 1310 Cramer Circle carterr@ferris.edu Big Rapids, MI. 49307	Phone: (231) FAX: (231) email:
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EDUCATION:

O.D. School of Optometry, Indiana University, Bloomington, IN.: 1970
B.A. School of Optometry, Indiana University, Bloomington, IN.: 1968

PROFESSIONAL LICENSES:

1973-75	Indiana "Optometry Educator's" License
1998-1999	New Zealand "Optometry Educator's" License
1970-Present	Michigan Optometry License #02345
2004-2007	Michigan Controlled Substance License

CERTIFICATES:

D.P.A. Certification in Michigan, 1984
I.A.B. "Treatment and Management of Ocular Disease" Examination Certificate, 1986
Certificate of Completion, "Therapeutic Management of Ocular Disease", 100 hours,
F.S.U. College of Optometry, 1989
T.P.A. Certification in Michigan, 1995

CLINICAL PRIVILEGES:

Henry Ford Hospital, Department of Ophthalmology, Detroit, MI, 1989-90

St. Mary's Hospital, Wege Center for Diabetes and Endocrinology, Grand Rapids, MI,
2002-2007

Cherry Street Health Services, Grand Rapids, MI 2002-2006

CLINICAL EXPERIENCE:

1970-71	Chief of Optometry Clinic Kingsley AFB, Oregon
1971-73	Chief of Optometry Clinic Norton AFB, California
1973-75	Assistant Clinical Professor School of Optometry Indiana University Bloomington, Indiana Major Instructional Areas General Optometry Clinic Pathology Clinic Contact Lens Clinic

1975-79 and 1980- present	Clinical Faculty Ferris State University Michigan College of Optometry Clinics Big Rapids, Michigan Major Instructional Areas and Clinics: Pathology Clinic (Chief of Service, 1978-79) Primary Care Clinic Sports Vision Clinic (Chief of Service, 1980-1988) Contact Lens Clinic St. Mary's Hospital/MCO Diabetic Clinic, Grand Rapids, MI Cherry Street Health Services/MCO Clinic, Grand Rapids, MI
1979-80	Staff Optometrist Department of Ophthalmology Henry Ford Hospital Detroit, MI
1980-82	Staff Optometrist (Summers only) Kincheloe Indian Health Center Kincheloe, Michigan
1983-2009	Private Practice (<i>Optometric Associates of Big Rapids, P.C.</i>) Big Rapids, MI (Owner, 1983-96; Employee, 1996-2009)
1986, 1988	V.O.S.H. Trip to Belize, Central America
1995-1998; 2000-2009	V.O.S.H. Trip to Dominica, West Indies
1998-99	Visiting Lecturer/Clinical Tutor Department of Optometry & Vision Science University of Auckland Auckland, New Zealand

ACADEMIC APPOINTMENTS:

1973-75	Assistant Professor Clinical Optometry School of Optometry Indiana University Bloomington, Indiana Courses Taught: V251 (5 credits) Ophthalmic Procedures II--Optometry Technicians Programs V551 (3 credits) Clinical Optometry--Case Analysis V464 (3 credits) Ocular Motility
1975-76 1976-87 1987-present FSU/MCO, continued	Assistant Professor Associate Professor Professor Michigan College of Optometry Ferris State University Big Rapids, MI Courses Taught: OPT 331 (2 credits) Introduction to Optometry OPT 351 (2 credits) Tests and Procedures I OPT 352 (2 credits) Tests and Procedures II OPT 453 (4 credits) Diagnosis and Treatment I OPT 454 (4 credits) Diagnosis and Treatment II OPT 455 (4 credits) Diagnosis and Treatment III OPT 415 (4 credits) General and Ocular Pathology (team taught) OPT 416 (4 credits) Ocular Pathology OPT 517 (5 credits) Applied Ocular Pathology OPT 533 (5 credits) General and Ocular Pharmacology (team taught) OPT 561 (4 credits) General Pharmacology (team taught) OPT 562 (3 credits) Ocular Pharmacology (team taught) OPT 634 (2 credits) Pharmacological Management of Ocular Conditions OPT 636 (3 credits) Community Health Optometry Post Graduate Certification Courses Taught: OPT 766 (5 credits) General and Ocular Pharmacology for Practicing Optometrists OPT 767 (3 credits) Therapeutic Management of Anterior Segment Disorders (team taught) OPT 768 (2 credits) Therapeutic Management of Posterior Segment Disorders (team taught) OPT 769 (3 credits) Examination Techniques for Ocular Diagnosis (team taught)
1998-99	Visiting Professor Department of Optometry & Visual Science University of Auckland Auckland, New Zealand Courses taught: 450.241DH Microbiology, Immunology, and Pharmacology 450.350DH Diseases of the Eye 450.480DH Advanced Optometric Science Course Controller for all clinic courses, December, 1998-July, 1999: 450.320DH, 450.410DH, 450.420DH and 450.461DH

INVITATIONAL LECTURES:

- "Symposium on Hypertension for Optometrists", Indiana University School of Optometry Continuing Education Program; Summer, 1974, 18 C.E.U.'s, co-presented with Fred Chang, O.D., and Charles Haine, O.D.

- "Rationale for Hypertension Screening by Optometrists", Indiana Optometric Association Fall Seminar; October, 1974, 3 C.E.U.'s, co-presented with Charles Haine, O.D.
- "All About Cataracts", Indiana Optometric Assistants Spring Meeting, April, 1975.
- "Hypertension Symposium", Indiana University School of Optometry Continuing Education Program; Summer 1975, 12 C.E.U.'s, co-presented with Charles Haine, O.D.
- "Diagnostic Pharmaceutical Agents in Optometric Practice", Michigan Optometric Association Fall Educational Seminar; November, 1975, 6 C.E.U.'s, co-presented with George Holcomb, Ph.D., and Brant Rowles, Ph.D. ALSO at Michigan Academy of Optometry Annual Meeting, March, 1977, 4 C.E.U.'s, co-presented with George Holcomb, Ph.D.
- "Aqueous Flow Dynamics", M.O.A. Ski Week, February, 1978.
- "Fixation Disparity", M.O.A. Ski Week, February, 1978.
- "Ocular Injuries and First Aid", Northwestern Lower Michigan Optometric Society Meeting, October, 1978.
- "Neuro-ophthalmology", M.O.A. Ski Week, February, 1979.
- "Red Eye and External Disease", M.O.A. Ski Week, February, 1979.
- "Ocular Injuries", M.O.A. Ski Week, February, 1979.
- "Slit Lamp Biomicroscopy", Optometric Institute and Clinic of Detroit, January, 1980.
- "Advanced Diagnostic Assessment", Ohio Optometric Association Spring Meeting, June, 1982.
- "Retinoscopy and Refraction", Department of Ophthalmology, Henry Ford Hospital, July, 1980.
- "D.P.A.'s in Practice", Maine Optometric Convention, June, 1984.
- "Anterior and Posterior Segment Assessment", "Eye Movement Strategies of Baseball Batters", M.O.A. Ski Week, February, 1986.
- "Optometric Reimbursement from Major Medical Insurance Companies", Spring M.O.A. Educational, 1985, M.O.A. Practice Enhancement Seminar, April, 1986, Winter M.O.A. Educational, 1988.
- "Medicare Reimbursement", M.O.A. Spring Educational, 1987; numerous local society meetings within Michigan, 1987; and special MOA meetings, 1992 and A.O.A. Meetings in 1992.
- "Athletic Eye Injuries", N.C.S.O.C., January, 1988.
- "Politics: Big States vs. Small States", AOA Legislative Conference, Fall, 1990.
- "Diagnosis and Treatment of Red Eyes", M.D.O.S., November, 1990, 1992, 1993 and District 4 (M.O.A.), April, 1991, and April, 1992.
- "Medicare Reimbursement", AOA Medicare Conference, February, 1992.
- "Pharmacology & Eye Disease", M.O.A. Ski Week, February, 1993.
- "Pharmacology for Paraoptometrics" and "Clinical Protocols", A.O.A. Paraoptometric Section, June, 1994.
- "TPA Update", Muskegon Community College, 1996.
- "TPA Education: Who needs it?" TOC Conference, University of New South Wales, Sydney Australia, July 1, 1999.
- "Case Simulation in TPA Education," TOC Conference, University of New South Wales, Sydney, Australia, July 1, 1999.
- "Confessions of an Expert Witness," FSU/MCO Summer Educational, Lansing, MI, June 2000.
- "Coding for Reimbursement," FSU/MCO Summer Educational, Lansing, MI, June, 2000.
- "Systemic Medications for Ocular Conditions," MOA Legislative Day, September 18, 2002.
- "Ocular Pharmacology for Diagnosis and Treatment," New Zealand Association of Optometrists Annual Meeting, October 3-6, 2002; Featured Speaker presenting 5 of 16 total hours of CE.
- "Certificate in Ocular Pharmacology," OPTOM 681; Department of Optometry and Vision Science, University of Auckland, Auckland, New Zealand: One of two TPA Certified Optometrists to lecture in Part II of this TPA certification course [the other optometrist was from Melbourne, Australia]; gave approximately 10 hours of lecture and 3 hours of hands-on workshops.

- "Acute Ocular Pain Management," Saginaw Valley Optometric Society, February 9, 2005
- "Acute Ocular Pain Management," Ferris Summer CE, June 16, 2005
- "Acute Ocular Pain Management," Southfield, Michigan, October, 2005
- "Acute Ocular Pain Management," Brighton, Michigan, October, 2005
- "Acute Ocular Pain Management," Muskegon Community College, November, 2005

PUBLICATIONS:

- "Self Assessment Program", Journal of the American Optometric Association, July, 1974, co-authored with Merle Pickel, O.D.
- "Optometric Student Recruitment", Michigan Optometrist, January, 1983.
- "Pharmacology for Ophthalmic Assistants", November, 1984, Eye Talk Magazine.
- "Optometry in Michigan HMO's", Michigan Optometrist, February, 1985.
- "Optometric Future Shock", Michigan Optometrist, December, 1985.
- "Visual Field Screening", February, 1986, Insight Magazine.
- "Diabetic Eye Disease: An Optometrist's Guide", Michigan Optometrist, April, 1986.
- "Medicare Parity - Good News and Bad News", Michigan Optometrist, February, 1987.
- "Sports Vision", Michigan Athletic Trainers Society Journal, Spring, 1987.
- "Optometry Cruise Ship: Dream Vacation or Nightmare", Michigan Optometrist, April, 1988.
- "Afterimages, Entoptic Phenomena, and Hallucinations", Michigan Optometrist, April 1990.
- "Managed Care & Health Care Reform," Viewpoint (NCSOC), Spring, 1994.
- "Sports Vision Enhancement Using the WJ Prosoft Contact Lens," Poster Presentation, AOA Congress, Orlando, Florida, June, 2004
- "Imaging Technology Uncovers Retinal Involvement in an Asymptomatic Patient with an Optic Pit," Poster Presentation, AAO Meeting, San Diego, California, December, 2005
- "Normative Data for Phoropter-Based Accommodative Facility Testing," Poster Presentation, AAO Meeting, San Diego, California, December, 2005

ADMINISTRATIVE EXPERIENCE AND SERVICE:

Indiana University

1973-74	Member, "Optometric Technician Program Admissions Committee"
1974-75	Member, "Committee for the Evaluation of Education"
1974-75	Member, "Residency Program Committee"
1974-75	Member, "Intramural Practice Committee"
1974-75	Faculty Advisor, "Omega Delta Tau" Optometric Fraternity
1974-75	Co-Editor, Indiana University School of Optometry Alumni Bulletin

Ferris State University/Michigan College of Optometry

1975-78	Member, "Educational Planning Committee"
1975-79 1984-85	Member, "Rank and Promotion Committee"
1975-78 2001-2010	Optometry Representative Member, "Ferris Faculty Association Executive Board"
1976-77	Member, "Ferris Faculty Association-Central Michigan Faculty Association Public Affairs Council"
1976-77	Chairperson, "Ferris Faculty Association Legislative Affairs Committee"
1976-78 1979, '82, '83	Member, "Optometry College Admission Committee" Chairperson
1977-79	Chairperson, "Optometry College Academic Review Committee"

1977-79	Chairperson, "Optometry College Continuing Education Committee"
1977-79	Member, "Optometry College Clinic Committee"
1999-2001	At-large member, "Optometry Clinic Council"
1985-86	Member, "Optometry College Continuing Education Committee"
1986-96	Chairman
1984-94	Administrator of O.D. post-graduate, transcript education both on- and off-campus with over 850 participants (certification courses for DPA's and TPA's).
1999-2004	Member, MCO Sabbatical Leave Committee
2000-2004	Chairman
2007-2008	Chairman
2000-2004	Member, All-University Sabbatical Leave Committee
2003-2004	Chairman
2002-2004	Member, University Graduate and Professional Committee
2002-present	"Patient Care Track Coordinator," MCO Curriculum Committee
2004- 2008	MCO Tenure Committee, Chair-2006-2008
2004-2008	Member, Senate Academic Program Review Council
2002-2008	Optometry Representative on University Academic Senate
2006 & 2010	FFA Negotiating Team
1986-present	Faculty Advisor to SVOSH
1999-present	Faculty Advisor to AOSA
1994-2003	Coordinator, "Monday Night Technology Night"
1999-2003	Co-Coordinator, "Kids' Day America Screening"
1999-2000	Faculty Representative, MCO "Blue Ribbon Panel"
2001-2003	Member, FSU "Police Oversight Committee"
1975-present	Numerous other committees, both college and university
2008-present	MCO Alumni Director & member of MCO Alumni Association Board
2009-present	MCO Coordinator for Development and Alumni Affairs
2008-2011	MCO Facilities [new building] Committee Chair
2011	FSU Academic Affairs Restructuring Core Committee

Michigan Optometric Association

1977-79	Chairman, Education Committee
1982-90	Member, Board of Trustees
1982-84	Chairperson, Professional Development Division
1984-86	Chairperson, Public Health Division
1986-87	Vice President and Chairperson, Legislative Affairs Division
1987-88	President- Elect
1988-89	President
1989-90	Immediate Past President
1987-92	Medicare Designee
1984-93	Member, Third Party Committee
1986-95	Member, Legislative Affairs Committee
	1989-1994, Chairperson
2005-2008	Chairperson, Awards Committee

Department of Optometry & Vision Science, University of Auckland, New Zealand

December, 1998-July, 1999	Interim Clinic Director
1998-1999	"Examiner," Optician Registry Board [for licensing optometrists in New Zealand]
1998-1999	"Examiner," The Optometry Council [for licensing optometrists in New Zealand and

Other:

- Member, "American Academy of Optometry Admissions Committee-Region III," 1977-81
- Member, Education Committee, North Central States Optometric Council, 1986-90
- Member, North Central States Optometric Council Cabinet, 1987-90
- "A.I.D.S. Provider Education Taskforce," Michigan Department of Public Health, 1986
- "Eyecare Benefits Committee and Federal Health Care Entitlement Committee," American Optometric Association,
(Chairperson, 1992-1994)
- Board of Directors Meceola C.C., 1992-95, 2001-03, and 2007; President 1994-1995 and 2002-03
- Co-Chairperson, Credentialing Committee, Eyecare of Michigan, 1992-95
- Educational Summit Meetings (A.O.A./A.S.C.O.), 1994
- Expert Witness and Legal Consultant for proceedings involving vision and optometry in Michigan, 1986-2002

PROFESSIONAL ORGANIZATIONS:

- Stonebelt Optometric Society, 1973-75
- Indiana Optometric Association, 1973-75
- West Michigan Optometric Association, 1975-79 and 1981-93
- Association for Research in Vision and Ophthalmology, 1978-79
- Detroit Metropolitan Optometric Society, 1980
- American Public Health Association, 1982-89
- New Zealand Association of Optometrists, 1998-99
- Michigan Public Health Association, 1986-89
- Omega Delta (Professional Optometric Fraternity), 1967-1970
- Upper Peninsula Optometric Association, 1987-Present
- Michigan Optometric Association, 1975-Present
- American Academy of Optometry, 1975-Present
- American Optometric Association, 1973-Present
- American Optometric Society, 2009-present

AWARDS:

- Milton N. Power, O.D. Outstanding Student Award, 1968
- Outstanding Omega Delta, 1970
- Michigan Optometric Association, "Outstanding Student Award," 1970
- Michigan Optometric Association "Keyperson Award," 1987
- Michigan Optometric Association "Optometrist of the Year," 1990
- MOA "Jack W. Bennett Optometric Educator of the Year Award," 1998, 2000, 2007

RESEARCH ENDEAVORS:

- Epidemiological and biostatistical analyses of various patient populations
- Sports Vision Related Projects
- Optometric Equity in Third Party Payment Systems in Michigan
- Clinical Protocols for Primary Care

SERVICE ORGANIZATIONS:

- Michigan V.O.S.H., 1985-Present
- B.R.H.S. Sports Booster, President, 1984-85
- B.R. Lions Club, Member, 1986-1988
- V.O.S.H., 1990-Present

- S.V.O.S.H., Ferris State University, Advisor, 1988-1991, 1994-Present
- A.O.S.A., Ferris State University, Advisor, 1994-Present

HOBBIES AND FREE-TIME ACTIVITIES:

- GOLF
- grandchildren
- skin diving
- sailing
- canoeing
- hiking
- reading
- photography
- videography
- biking
- traveling

Amy E. Dinardo, OD, MBA, FAAO

813 Marion Avenue • Big Rapids, MI 49307 • (231) 580-9069
amydinardo@ferris.edu

EDUCATION

O.D., *high distinction*, May 2007, Michigan College of Optometry, Big Rapids, MI

M.B.A., *highest distinction*, August 2011, certificate in management tools and concepts, Ferris State University, Big Rapids, MI

Residency Certificate, July 2008, Michigan College of Optometry, Big Rapids, MI
Specializing in cornea and contact lenses

B.S., *magna cum laude*, May 2003, St. Mary's College, Orchard Lake, MI

PROFESSIONAL EXPERIENCE

2011 *Ferris State University-Michigan College of Optometry* Big Rapids, MI
Assistant Professor

- instruct and supervise 2nd year students in primary care clinics
- instruct and supervise 3rd and 4th year optometry interns in contact lens, primary care, medical/surgical, pediatrics/binocular vision, and vision therapy clinics
- conduct a weekly review of medical records and a weekly Medicare audit with optometry students

2008-2011 *Ferris State University-University Eye Center* Big Rapids, MI
Adjunct Assistant Clinical Professor

- instruct and supervise 2nd year students in primary care clinics
- instruct and supervise 3rd and 4th year optometry interns in contact lens, primary care, medical/surgical, pediatrics/binocular vision, and vision therapy clinics
- conduct a weekly review of medical records and a weekly Medicare audit with optometry students
- medical billing and coding teleoptometric grand rounds facilitator
- advisor for a 4th year student's senior research project
- guest lecturer for a variety of courses and special events

2007- present *Walmart Vision Center* Cadillac, MI
Independent Optometrist

- primary care optometrist providing comprehensive examinations, pediatrics and contact lens services

2009-2011 *Hansen Vision Center* Greenville, MI

Independent Optometrist

- established a referral center for pediatrics, binocular vision services, and vision therapy
- consultant for local elementary teachers in regards to learning-related vision disorders
- supervise the on-site vision therapist
- involved in practice management and marketing including designing the practice website, www.hansenvisioncenter.com

2007-2009 *Smeelink Optical* Big Rapids, MI

Independent Optometrist

- primary care optometrist providing comprehensive examinations and contact lens services.

2008-2009 *Cutting Edge Eyewear* Traverse City, MI

Independent Optometrist

- provided comprehensive examinations particularly to the pediatrics and special needs populations

2007-2008 *University Eye Center-Michigan College of Optometry* Big Rapids, MI

Resident

- provide patient care in contact lens, primary care, and medical/surgical clinics
- manage patients in need of specialty contact lenses
- supervise third and fourth year optometry interns in contact lens, primary care, and medical/surgical clinics
- conduct clinical research in the area of cornea and contact lenses
- pre and post-operative care of patients involved in cataract surgery, refractive surgery, retinal surgery, oculoplastic surgery, and corneal transplants

2007- 2008 *West Michigan Eye Care Associates* Grand Rapids, MI

Resident

- primary care optometrist providing contact lens care and managing ocular disease

2007- 2008 *Art Optical Incorporated* Grand Rapids, MI

Resident

- specialty contact lens consultation
- designing spherical, aspheric, multi-focal, keratoconic, and reverse geometry contact lenses

2007 *University Eye Center-Michigan College of Optometry* Big Rapids, MI

Intern

- provided patient care in primary care, pediatrics/binocular vision, contact lens, low vision, diabetic, and medical/surgical clinics
- participated in a weekly medical billing and coding seminar
- involved in the care of patients undergoing on-site LASIK surgery

- AAO Cornea and Contact Lens Travel Grant (2007)
- GPLI Scholarship for Excellence in Gas Permeable Lens Fitting (2007)
- MCO Research Award in Clinical Sciences (2007)
- George N. Holcomb Scholarship (2007)
- American Foundation for Visual Awareness Scholarship (2006)
- Walman Optical Company Scholarship (2005)
- Acuvue Eye Health Advisor Student Citizenship Award (2004)
- Dean's List, St. Mary's College (2000-2003)
- Honor for special achievement in biological sciences (2003)

PROFESSIONAL AFFILIATIONS

- **American Optometric Association**, member since 2003
 - Vision USA Committee member (2010-2011)
- **Michigan Optometric Association**, member since 2003
 - Chair, Public Relations Committee (2010-present)
 - Media spokesperson (2009 - present)
- **American Academy of Optometry**, member since 2007
 - Fellow since 2009
 - Admittance Committee Member (2010-present)
- **West Michigan Optometric Association**, member since 2010
 - President (2011-2012)
 - Treasurer (2010-2011)
- **College of Optometrists in Vision Development**, member since 2007
 - Associate member (2010)
- Contact Lens and Cornea Section of the American Optometric Association, member since 2003
- Sports Vision Section of the American Optometric Association, member since 2004

LEADERSHIP EXPERIENCE

- **President**, West Michigan Optometric Association (2011-present)
- **Chair, Michigan Optometric Association**, Public Relations Committee (2010-present)
- **Committee Member**, American Academy of Optometry, Admittance Committee (2010-present)
- **Board of Directors**, Michigan College of Optometry Alumni Foundation (2009-present)
- **Media Spokesperson**, Michigan Optometric Association (2009- present)
- **Treasurer**, West Michigan Optometric Association (2010-2011)
- **Committee Member**, American Optometric Association, Vision USA Committee (2010)
- **Committee Member**, Practice Management Division, Michigan Optometric Association (2008-2010)
- **Facilitator**, Industry Toric Workshops (2009-present)
- **Mentor**, Teague Industry Workshops (2008-present)

- **Coordinator**, CooperVision Multifocal Workshop at MCO (2008)
- **Coordinator**, Art Optical Gas Permeable Lens Workshop at MCO (2007)
- **Coordinator**, Teague Toric Workshop for third year students at MCO (2007)
- **Class Representative**, Michigan College of Optometry Class of 2007 (2003-2007)
- **Co-Chair**, “Eyeball” at the Michigan College of Optometry (2004)
- **Co-Chair**, Student Orientation, Michigan College of Optometry (2004)
- **Committee Member**, Save Your Vision Month (2004-2005)
- **Chair**, Color Vision Screenings at Ferris State University (2003)

LECTURES/PRESENTATIONS

- **Therapeutic Contact Lenses**; New England College of Optometry (2011)
- **Medical Lab Testing**; Michigan College of Optometry, OPTM 730: Physical Examination and Diagnosis (2007-2011)
- **Soft Toric Contact Lens Fitting**, Michigan College of Optometry and the Illinois College of Optometry, Teague Industry Toric Workshop (2009, 2010)
- **Pediatric Practice Management**, Michigan College of Optometry (2010)
- **Medical Billing Review**, Michigan College of Optometry Capstone Seminar (2010)
- **Learning Related Vision Disorders in the Pediatric Population**, Montcalm County Teachers and Principals In-service (2009)
- **Contact Lens Solutions**; Michigan College of Optometry, OPTM 648: Contact Lens I (2008)
- **FAQ’s when taking NBEO Part III Clinical Skills**, Michigan College of Optometry, Capstone Seminar (2008)
- **Soft and Hybrid Contact Lenses for Keratoconus**; Michigan College of Optometry, Resident’s Day (2008)
- **Advanced Concepts in Refractive Surgery**; Michigan College of Optometry, OPTM 737: Advanced Ocular Disease & Surgical Management (2008)
- **Use of the RPS Adeno Detector**; Michigan College of Optometry, Faculty In-Service (2008)
- **Retina: Clinical Applications**; Michigan College of Optometry, OPTM 534: Ocular Anatomy and Physiology (2007)
- **Dynamic Contour Tonometry**; Michigan College of Optometry, Faculty In-Service (2007)
- **Cornea: Clinical Applications**; Michigan College of Optometry, OPTM 534: Ocular Anatomy and Physiology (2007)
- **Macular Holes**; Continuing education lecture, Western Michigan Optometric Association (2007)
- **Vascularized Limbal Keratitis**, MCO Teleoptometric Grand Rounds (2006)
- **Charles Bonnet Syndrome**, Grand Rounds Case Presentation (2006)
- **Medical Lab Tests for Optometrists**, Grand Rounds Presentation (2006)
- **Multifocal Contact Lenses for the Presbyope**, Case Presentation (2006)
- **Branch Retinal Vein Occlusion**, Case Presentation (2005)

RESEARCH/PUBLICATIONS

- **Dinardo, A.,** Pole J., Buckingham R., Lotoczky, J.; Accuracy of the TonoPen XL, Dynamic Contour Tonometer, and Goldman Applanation Tonometer in patients with irregular corneas (2007-2009)
- **Poster, Dinardo, A.,** Pole J., Buckingham R., Lotoczky, J.; Measuring Intraocular Pressures in Patients with Keratoconus, presented at the Global Keratoconus Conference (2008)
- Morgan, B., **Dinardo, A.;** CLARITY Plus Multifocal Contact Lens Study (2007-2008)
- **Poster, Dinardo, A.** Wrubel D.; Epidemiology of Refractive Error in Dominica West Indies, presented at the College of Optometrists in Vision Development 37th Annual Meeting (October 2007)
- **Consultant,** Wink Productions, GPLI Instructional Video and Pamphlet on Gas Permeable Lens Care, Insertion, and Removal (2007)
- **Consultant,** Wink Productions, GPLI Click and Fit Program (2007)
- **Dinardo, A.,** Wrubel, D.; Epidemiology of Refractive Error in Dominica, West Indies (2006)

NOTEABLE COURSEWORK/CONTINUING EDUCATION

- Vision Therapy/Visual Dysfunctions, Optometric Extension Program (2010)
- Media/ Public Relations Training Workshop (2010)
- Basic Life Support for Health Care Providers, American Heart Association (2008, 2010)
- Gas Permeable Lens Institute Residents Workshop (2007)
- Vistakon Advanced Contact Lens Fitting Workshop (2007)
- Vistakon Contact Lens Training Seminar (2007)
- Injectables and Suturing, Michigan College of Optometry (2006)
- Fraud Awareness and Professional Compliance, Michigan State University (2006)
- HIPPA Compliance, Michigan State University (2006)

VOLUNTEER EXPERIENCE

- Vision USA Weekend at Hansen Vision Center (2010)
- Volunteer Consultant for Montcalm County School District (2009-2010)
- Cadillac Community Health Care Clinic (2009-2010)
- Diabetic Support Group at Mecosta County Community Hospital (2007)
- SVOSH Optometry Mission in Dominica, West Indies (2006)
- Children's Vision Screenings at the Junior Olympics in Des Moines, IA (2004)
- Relay for Life (2004-2006)
- Kids Day America Vision Screenings (2003)

- **Optometry License, State of Michigan**
 - TPA/DPA Certified
- **National Board of Examiners in Optometry Certified**
 - Part I (Basic Science): August 2005
 - Part II (Clinical Science): December 2006
 - Part III (Clinical Skills): April 2007
- Vision Therapy/Visual Dysfunctions (VT1); Optometric Extension Program (2010)
- Basic Life Support/CPR Certification; American Heart Association (2010)
- CRT Orthokeratology Certification; Paragon (2007)
- BE Retainer Overnight Orthokeratology Certification; Bauch and Lomb (2005)

Sarah B. Hinkley, O.D., F.C.O.V.D.

14069 Wildwood Drive, Big Rapids, MI 49307

Home (231) 679-5872, Office (231) 591-2185

SarahHinkley@ferris.edu

ACADEMIC PREPARATION:

Doctorate of Optometry, Michigan College of Optometry at Ferris State University, Big Rapids, 2004
G.P.A.: 3.81/4.00

Bachelors of Vision Science, Michigan College of Optometry at Ferris State University, Big Rapids, 2002
G.P.A.: 3.78/4.00

Associate of Science, Pre-Optometry, Ferris State University, Big Rapids, MI, 1999
G.P.A.: 3.85/4.00

PROFESSIONAL EXPERIENCE:

Associate Professor and Chief of Vision Rehabilitation Services, Promotion effective July 2011

Assistant Professor and Chief of Low Vision Rehabilitation Services, June 2008-present

Michigan College of Optometry at Ferris State University, Big Rapids, MI

- Clinical instruction of 3rd and 4th year students in primary care, pediatrics and binocular vision, geriatrics, contact lenses, low vision and Cherry Street Health Services pediatric clinics
- OPTM 525 Geometric, Physical and Visual Optics Lab Co-Instructor

- OPTM 657 Clinical Problem Solving I Course Instructor
- OPTM 741 Developmental and Behavioral Optometry Course Co-Instructor
- OPTM 741 Developmental and Behavioral Optometry Lab Coordinator and Head Instructor
- OPTM 745, 3rd Year Low Vision Course Coordinator/Instructor
- OPTM 746 Treatment of Accommodative and Binocular Dysfunction Course and Lab Co-Instructor
- Low Vision as a Career Option Student Event Coordinator and Speaker
- Low Vision Grand Rounds Student Night Event Coordinator
- The Industry Toric Contact Lens Workshop Student Coach
- Research Projects and Advisements
- Pre-Optometry Student Advising
- Responsibility for entire Low Vision Department including marketing, patient care, inventory, staff education, maintaining patient load and ensuring exceptional student experience

Temporary Full-Time Faculty, June 2007-June 2008

Michigan College of Optometry at Ferris State University, Big Rapids, MI

- OPTM 745, 3rd Year Low Vision Course Coordinator/Instructor
- Clinical Instructor, 2nd, 3rd and 4th year students
- Experience in primary care, contact lens, binocular vision/vision therapy, medical/surgical and low vision clinics
- Clinical observation of Dr. Foote, adjunct faculty, in low vision clinic
- Guest lectures
- Record Review Course Instructor
- RGP Workshop Station Instructor and Study Investigator
- Multifocal Contact Lens Workshop Instructor
- Low Vision Student Senior Research Project Advisor
- Low Vision Student Environmental Vision Project Advisor
- Focus on Fours Preschool Vision Screening

Doctor of Optometry, 2004-April 2007

Maumee Center for Eyecare, Maumee, Ohio and Morenci, Michigan

- Full scope eye care including contact lenses, medical/surgical care, geriatrics, pediatrics , low vision and vision therapy
- Fully involved in all management decisions including human resources, technology acquisition, financial planning and management, conflict resolution and employee training/education

Optometric Extern, January to May 2004

Duane Waters Hospital, Jackson Prison, Jackson, Michigan

- Emphasis on primary care, prosthetics and ocular disease

Optometric Extern, August to December 2003

Eaton Rapids Optometry, Eaton Rapids, Michigan

- Emphasis on primary care, pediatrics, vision therapy and private practice management/ownership

Optometric Extern, May to August 2003

Henry Ford OptimEyes, West Bloomfield and Westland, Michigan

- Emphasis on primary care, contact lenses, ocular disease and pre/post refractive surgery

Ophthalmic and Surgical Assistant, Summer 2001

Northern Vision Eye Care, Traverse City, Michigan

- Patient pre-testing, tonometry, visual fields, retinal photography, cataract and glaucoma screenings, refractions, pre-LASIK testing, pachymetry, computer operations before, during and after LASIK surgery, patient prep for LASIK and A-scan measurements

Ophthalmic Assistant, Summers 1998, 1999, 2000 and 2002

Grand Traverse Ophthalmology Clinic, Traverse City, Michigan

- Patient pre-testing, tonometry, visual fields, exam room scribe, surgical assistant, contact lens classes, auto-refraction, corneal topography, lensometry and keratometry

NATIONAL/INTERNATIONAL

SCHOLARLY ACTIVITY/ EDUCATIONALS:

Co-Authored Handbook (yet unnamed), Reference text for healthcare professionals on low vision rehabilitation, physiology and function of the eyes and visual process, protocol of typical eye examination, ocular and systemic diseases and their functional implications, rehabilitative process and referrals, Estimated completion September 2011 to interested publisher

Low Vision Rehabilitation: Maintaining Function with Visual Impairment, Midwest Regional Meeting of American Association of Certified Orthoptists, June 3, 2011, Traverse City, MI, JCAHPO approved course

Vision Rehabilitation: From Bad News to New Hope, Consortium of Osteopathic Residencies in Ophthalmology, April 22, 2011, Hosted by Michigan State University Neurology and Ophthalmology Department, Lansing, MI

Journal of Behavioral Optometry, Editorial Review Board Member, February 2011-Present

“Through the Eyes of a Child: Working with Youngsters Who are Visually Impaired” Presentation, Envision Conference, September 2010, San Antonio, Texas, Two Hours, COPE 29324-LV

“The Formation of a Statewide Low Vision Rehabilitation Coalition: The What, Why and How” Presentation, Envision Conference, September 2010, San Antonio, Texas, One Hour, COPE 29045-LV

American Optometric Association Low Vision Rehabilitation Student Awareness Presentation Event Coordinator/Presenter, March 2010

“Michigan Glaucoma Awareness Outreach: Community education for a high risk population” Poster Presentation, November 2009

- American Public Health Association Annual Meeting, Philadelphia

College of Optometrists in Vision Development Fellowship, October 2009

- Inducted at annual meeting in Denver
- Successfully completed and passed six open book essay questions, three case reports, a written examination and an oral interview

“Low Vision Educational Approach” Research Contributor- Fall 2009

- Study conducted by School of Optometry and Vision Science, The University of New South Wales

Objectives for Entry-Level Low Vision and Visual Impairment and Low Vision Rehabilitation Contributor- July 2009 and 2010

- Association of Schools and Colleges of Optometry (ASCO) Low Vision SIG member

- Contributor to rough draft of document outlining objectives and methods for previously approved entry-level competencies for graduating optometry students

AOA Student Awareness of Low Vision Rehabilitation and Grand Rounds Night Event, April 2009

- Coordinator, Speaker and Grand Rounds Mentor

"Entry Level Competencies in Low Vision and Visual Impairment and Low Vision Rehabilitation"

Contributor- July 2008

- Association of Schools and Colleges of Optometry (ASCO) Low Vision SIG member
- Contributor to document approved by ASCO outlining entry-level competencies for graduating optometry students

"Pediatric Malingering and the Relation to Sibling Spectacle Wear" Poster, January 2004

- Overall rate of malingering in sample pediatric population and the influence of sibling spectacle wear on malingering rates
- Presented at the C.O.V.D annual conference in Las Vegas, October 2004

PUBLICATIONS:

"Exceptional Merit Grants" *Ferris Magazine*, Spring 2011

"2010 Exceptional Merit Grant Awardees" *The Ferris Foundation*, May 2011

"Evidence for Familial Link in Visual Processing Disorders" Research Publication, First Author, Accepted for publication in *Optometry and Vision Development* in August 2010, Publication in Vol. 42 #1, Jan/Feb 2011 Issue

"Perceptions of Elementary Teachers About Vision and Learning and Vision Therapy" Accepted for publication in *The Journal of Behavioral Optometry*, September 2010, Publication in Vol. 22 #1, 2011 Issue

"Debunking the Myths of Low Vision Rehabilitation" *Optometric Management*, Accepted for publication Nov. 2010 to be placed in October 2011 issue

"Noteworthy: Low Vision Rehabilitation Clinic" Ferris Magazine, Fall 2010

"Newsmakers: ODs of the Year" *Optometry and Vision Development*, Vol. 41, Number 3, 2010

"The Status of Low Vision Rehabilitation and Certification in the State of Michigan" Research Publication, Second Author, Submitted for publication in *Optometry: Journal of the American Optometric Association* on Oct. 1, 2010, Accepted for publication May 9, 2011

"The Challenge of Balance" *Women in Optometry* magazine, June 2010

"Women in the News: Dr. Hinkley & Dr. Mika" *Women In Optometry*, June 2010

"Michigan Glaucoma Awareness Program Reaches Minorities" *AOA News* Volume 48, January 2010

PROFESSIONAL MEMBERSHIPS/CERTIFICATIONS:

Healthy Eyes Healthy People 2010 American Optometric Association State Consultant for Michigan

College of Optometrists in Vision Development, Fellow Member

Paragon CRT for Corneal Refractive Therapy Certification from Paragon Vision Sciences

SynergEyes PS Hybrid and Multifocal Certification

American Optometric Association, Member

– Low Vision Rehabilitation Section Member

American Optometric Student Association, Member

Volunteering Optometric Service for Humanity (V.O.S.H.), Member

American Public Health Association

– Vision Section Member

PROFESSIONAL SERVICE:

Interview for Article in USA Today, AOA UV Protection Spokesperson, May 13, 2011

60 Second Health Update with Christopher Michaels, national radio program guest discussing need for UV protection, June 2010

American Optometric Association Media Spokesperson, UV Protection Campaign, May through August 2010

American Optometric Association Health Promotion Committee Member, January 2010-present

College of Optometrists in Vision Development Associate to Fellow Committee Member, October 2009-present

College of Optometrists in Vision Development Academic Services Committee Member, September 2009-present

College of Optometrists in Vision Development Michigan College of Optometry Faculty Liaison, September 2009-present

Association of Schools and Colleges of Optometry Low Vision SIG Group Member, July 2008- present

V.O.S.H. mission trip to Grenada for eye care services, March 2003

HONORS AND AWARDS:

“Enhancing Vision Care” Article by Ferris Foundation, 2010 Exceptional Merit Grant Awardees Publication, May 2011

Promotion to Associate Professor of Optometry by Ferris State University, Granted April 2011, Effective July 2011

Recognition for Michigan Young Optometrist of the Year Award in *Women in Optometry* magazine, June 2010

“COVD Congratulates the New Fellows and Certified Optometric Vision Therapists” recognition, *Optometry and Vision Development*, V40, Number 4, 2009

AOA News recognition for American Public Health Association Poster Presentation, December 2009 issue

College of Optometrists in Vision Development Fellowship Induction, October 2009

Ten Year Membership Award, American Optometric Association, January 2009

College of Optometrists in Vision Development Award for Excellence in Vision Therapy, 2004

Omicron Delta Kappa National Leadership Honor Society, 1999-2004

National Walman Optical Company Scholarship Recipient, 2002-3 and 2003-4

National 2nd Place Award for *The Endeavor* Honors Program Newsletter, Planning Board Member and Author, 1999

STATEWIDE

SCHOLARLY ACTIVITY/ EDUCATIONALS:

“Neuroplasticity: Rewiring the Optometric World” COPE 31023-FV, Michigan College of Optometry Summer Continuing Education Seminar, June 2011, Invited Lecturer

“Effect of Reduced Visual Ability on the Identification of Ocular Disease” Research Project, November 2010-present

- Investigating impact of visual impairment on the detection of healthy versus diseased human retinas

“Association of Accommodative Amplitude and Lag with Attention Deficit/Hyperactivity Disorder” Research Project, October 2010-present

- Investigating any potential association between accommodative dysfunction and positive diagnosis of ADD or ADHD from a medical professional or based on a recognized symptom survey compared to a control group without ADD or ADHD diagnosis or symptoms

“Vision Rehabilitation through the Lens of Primary Care” Michigan Optometric Association Winter Continuing Education Seminar, February 2011, Invited Lecturer

“Practical Binocular Vision Strategies for the Primary Care Optometrist” Michigan Optometric Association Winter Continuing Education Seminar, February 2011, Invited Lecturer

“The Effectiveness of a Vision Rehabilitation Patient Manual” Research Project, March 2010-present

- Investigating patient perception of rehabilitation outcomes with and without the use of a comprehensive take-home manual in printed and PDF with audio formats

“How Balance Alters the Performance of the Visual System” Research Project, February 2010-present

- Investigating changes in accommodative posture, tracking and convergence ability in children when seated on a balance ball versus a chair

“Rehabilitation with a big “R”: VT for the Visually Impaired” Presentation, January 22, 2010

- Michigan Vision Therapy Study Group Conference

“Michigan Youth Vision Initiative Project” Research Project, Fall 2009-present

- Investigating teachers’ knowledge about the relationship between vision and learning and how visual symptoms may present in the classroom

“Awareness of Low Vision Services within the Geriatric Population” Research Project, Fall 2009-Present

- Investigating the knowledge of the public in regards to the availability of low vision rehabilitation services by targeting seniors attending senior center events

“Communication is Key to VT” Presentation, January 2009

- Michigan Vision Therapy Study Group Conference

“Low Vision as a Practice Option: A Top Ten List”, November 2008 and November 2009

- Michigan Optometric Association Low Vision Student Awareness Night
- Event Coordinator and Speaker

The Status of Low Vision Certification in the State Of Michigan, Fall 2008-Spring 2009

- Research project investigated number of certified and non-certified low vision providers in state, demographics and regional representation of providers and reasons for not pursuing certification

PUBLICATIONS:

“MOA Members Appointed to AOA Committees for 2011” *The Michigan Optometrist*, Vol. 91, No. 2, March-April 2011

“MOA Winter Seminar Recap” *The Michigan Optometrist*, Vol. 91, No. 2, March-April 2011

“Glaucoma Educational Resources” *The Michigan Optometrist*, Vol. 90, No. 5, September- October, 2010

“Meet the ‘Young Guns’ of Optometry” and “The Challenge of Balance” Reprints from *Women in Optometry*, July/August, 2010 issue (Vol. 90 No. 4) of *The Michigan Optometrist Journal*

“Michigan College of Optometry Low Vision Grand Rounds Program” May/June, 2010 issue (Vol. 90 No. 3) of *The Michigan Optometrist Journal*

“MOA Committee Corner: Healthy Eyes Healthy People Committee” and “AOA Committees = MOA All Stars” March/April 2010 issue (Vol. 90 No. 2) of *The Michigan Optometrist Journal*

“Healthy Eyes Healthy People Michigan: Glaucoma Awareness Outreach earns recognition in national publication” January/February, 2010 issue (Vol. 90 No. 1) of *The Michigan Optometrist Journal*

“A Healthy Eyes Healthy People (HEHP) Success Story” October/November, 2009 issue (Vol. 89 No. 5) of *The Michigan Optometrist Journal*

“Grant Recognition” May/June, 2009 issue (Vol. 89 No. 3) of *The Michigan Optometrist Journal*

“Dr. Hinkley Builds Awareness for HEHP” July/August, 2009 issue (Vol. 89 No. 4) of *The Michigan Optometrist Journal*

“The Binocular Vision Short List: Procedures for the Primary Care Optometrist” December/January, 2008/9 issue (Vol. of *The Michigan Optometrist Journal*)

PROFESSIONAL MEMBERSHIPS/CERTIFICATIONS:

Michigan Optometric Association Low Vision Practitioner Certification, August 2008-present

Michigan Optometric Association, Member

- Healthy Eyes Healthy People 2010 Committee, Current Chair
- Low Vision Committee Member
- Low Vision Committee Certification Exam Administrator

Michigan Public Health Association, Member

- Vision Section Member

PROFESSIONAL SERVICE:

Michigan Optometric Association Leadership Retreat Attendee- September 2008 and 2009

Recipient of Michigan Low Vision Rehabilitation Coalition Grant on behalf of the Michigan Optometric Association Healthy Eyes Healthy People Committee, April 2009

Recipient of the Michigan Glaucoma Awareness Outreach Grant Renewal on behalf of the Michigan Optometric Association Healthy Eyes Healthy People Committee, April 2009

Leader of statewide campaign to implement the Keeping Injuries Down in Sports (K.I.D.S.) Grant received from the American Optometric Association and Liberty Sport, April 2008

Recipient of the Michigan Glaucoma Awareness Outreach Grant on behalf of the Michigan Optometric Association, April 2008

HONORS AND AWARDS:

“Michigan O.D. presents poster at American Public Health Association Annual Meeting – Thanks to Dr. Hinkley!” article, January/February, 2010 issue (Vol. 90 No. 1), *The Michigan Optometrist Journal*

“Young Optometrist of the Year” article and biography, January/February, 2010 issue (Vol. 90 No. 1), *The Michigan Optometrist Journal*

Personal notes of congratulations and thanks, Barb Horn, OD, Immediate Past-President, Greg Ford, OD, Board of Trustee, and Cindy Schnetzler, Executive Director of the Michigan Optometric Association, January 2010

Michigan Optometric Association Young Optometrist of the Year Award, January 2010

Letter of Appreciation for Service, Michigan Optometric Association, Matthew Maki, O.D., FAAO, July 2009

Michigan’s American Foundation for Vision Awareness. Scholarship Recipient, 2003-4

LOCAL/COMMUNITY

SCHOLARLY ACTIVITY/ EDUCATIONALS:

Vision Rehabilitation: The What, Why and How, Interactive presentation, Association for the Blind and Visually Impaired Support Group, Cadillac, MI, August 2010

“Rehabilitation: Restructuring the Optometric World” Faculty Development Seminar, July 2010, Ferris State University Michigan College of Optometry

English 491 Internship Faculty Supervisor for creation of comprehensive “Low Vision Patient Manual”, Spring semester 2010

Ferris Foundation Exceptional Merit Faculty Award for “Low Vision Rehabilitation Device Workshop and Grand Rounds”, April 2010

“Evidence for Familial Link in Vision Processing Disorders” Research Project- Fall 2009-present

- Co-Investigator

Michigan College of Optometry Pediatric Study Group Participant- Fall 2009-present

“Low Vision Update” Continuing Education Presentation- April 2009

- Michigan College of Optometry Faculty Development Seminar
- COPE approved

“The Eyes as a Reflection of Overall Health” Presentation– December 2008

- Ferris State University Select Sixty Meeting

“Low Vision as a Practice Option: A Top Ten List”- November 2008 and November 2009

- Michigan Optometric Association Low Vision Student Awareness Night
- Event Coordinator and Speaker

Faculty Center for Teaching and Learning New Faculty Transition Program Participant-August 2008-May 2009

- Bi-weekly meetings about faculty transition issues and group discussion exchange

O.D. Success Story Presentation, August 2008 and 2009, Michigan College of Optometry, 1st Year

Student Orientation Program

- Personal journey into optometry
- Reasons to love profession
- Demonstrate possible aspirations of student

Dress Code Educational/Fashion Show, August 2008 and 2009, Michigan College of Optometry, 1st Year

Student Orientation Program

- Model demonstrating what not to wear in classroom and clinic

“How to Gain Admittance into Optometry School”, October 2008

Pre-Optometry Club at Ferris State University

- Guest speaker

“Professionalism in Optometry” Presentation, December 2007, Michigan College of Optometry, OPTM 511, 1st Year Introduction to Optometry course

- Definitions, methods, examples and benefits of professionalism
- In practice and outside of practice

“Practice Management Pearls” Presentation, December 2007, Michigan College of Optometry, OPTM 511, 1st Year Introduction to Optometry course

- Business principles, employee/staff issues, marketing, patient care

“Optometry: The Primary Eye Care Profession” Presentation, September 2007, Ferris State University,

CARE 102

- Career exploration class
- Snapshot of optometry as a career choice

“Intro to Optometry” Presentation, September 2007, Michigan College of Optometry, OPTM 511, 1st Year Introduction to Optometry course

- Modes of practice, earning potentials, business aspects of profession, real world pearls
- 1st year optometry students

“School Nurse Symposium” Presentation, May 2006 and March 2007

- Pediatric vision disorders, ocular health, vision-related learning problems and ocular safety
- Toledo area public, parochial and private school nurses and educators
- Created and implemented the symposium with the help of the Ohio Optometric Association and a grant from the Sight for Students Program

“Healthy Vision...Healthy Living” Presentation, September 2005

- Northwest Ohio Annual Aging Eye Luncheon sponsored by Prevent Blindness Ohio and the Toledo Community Foundation
- Age-related eye diseases and their prevention and treatment

PUBLICATIONS:

“Providing top-quality care: Optometry students gain hands-on experience during low-vision workshop” Big Rapids Pioneer newspaper, April 12, 2011

“Ferris’ Hinkley Becomes COVD Fellow” Big Rapids Pioneer newspaper, January 26, 2010 and Ferris State University’s *University Wide Notices*, January 27, 2010

PROFESSIONAL MEMBERSHIPS/CERTIFICATIONS:

West Michigan Optometric Association Member, February 2010-present

Arrowhead Park Professional Association, Maumee, Ohio, July 2004-April 2008

PROFESSIONAL SERVICE:

Michigan College of Optometry Clinic Advisory and Credentialing and Privileging Committee Member,
August 2010-present

Michigan College of Optometry Alumni and Community Affairs Committee Member, August 2010-
present

Ferris State University Honors Program "University Eye Center Shadowing Experience" Project
Coordinator- December 2009-present

Mecosta-Osceola Intermediate School District "Healthy You" Presentation- September 2009

Mecosta-Osceola Intermediate Math/Science/Technology Center Optometry Ambassador and MCO Tour
Guide- April 2009

"Beyond the Campus: Low Vision Rehabilitation Feature" Ferris State University Television Program
Guest airing on cable channel 7 multiple times- April 2009

Hospice patient home visits- Fall 2008

Big Rapids Lions Club "Low Vision Rehabilitation: an unmet need" Presenter- April 2009

Ferris State University Faculty Center for Teaching and Learning New Faculty Program Participant,
September 2008- May 2009

Michigan College of Optometry Executive Council Member, September 2008- present

Michigan College of Optometry Executive Council Secretary, September 2008- September 2009

Michigan College of Optometry Student Recruitment Committee Member, August 2008- present

Michigan College of Optometry Outcomes and Assessment Committee Member, August 2008-present

Michigan College of Optometry Credentialing and Privileging Committee Member, August 2008-August 2009

Michigan College of Optometry Academic Review Committee Member, August 2009- present

Michigan College of Optometry Clinic Council Member, August 2008- present

Michigan College of Optometry Faculty Council Secretary, August 2008- present

Ferris State University Honors Council Member, July 2008- present

Ferris State University Select Sixty Group Volunteer Presenter, December 2008

Mecosta-Osceola Intermediate School District Allied Health Program Volunteer Presenter and Tour Guide, 2008

Michigan College of Optometry 1st Year Orientation Volunteer/Panel Member, 2007- present

Prevent Blindness Ohio, Northwest Chapter, Donor Doctor and Committee Member, 2005-7

V.O.S.H. mission trip to Grenada for eye care services, March 2003

Secretary of the Michigan College of Optometry Student Government, 2002-3

Ferris State University Student Government Representative for M.C.O., 2002-3

Save Your Vision Week Elementary School Presenter and Committee Member, 2001

Red Cross Blood Drive Volunteer, 1999

HONORS AND AWARDS:

Article featuring bio and low vision rehabilitation clinic in the new Michigan College of Optometry building, October 2010, *Ferris Magazine*

“Mesick native named Young Optometrist of the Year” Article, May 5, 2010, Cadillac Evening News

Note of congratulations for Ferris State University President Dave Eisler for Michigan Young Optometrist of the Year Award, January 22, 2010

Outstanding Professor of the Year for the Third Year Class awarded by Michigan Optometric Student Association, Academic year 2008-9

Timme Travel Grant Recipient, Ferris State University, May 2009

OPTM 657 Clinical Problem Solving I course received an overall 4.86/5.0 on self-administered course conclusion survey after first time taught, May 2009

Michigan College of Optometry Best Original Investigative Work Research Award for "The Status Of Low Vision Certification In The State Of Michigan", April 2009

OPTM 745 Low Vision course received an overall 4.6/5.0 on the university's student assessment of instruction after first time taught and 4.5/5.0 second time taught, May 2008

Excellent instructor evaluations from clinical students at the Michigan College of Optometry, 2007-present

Pediatric Office of the Year, Parent magazine of Northwest Ohio, 2006

Ferris State University Alumni Scholarship, 2003-4

Ferris State University Honors Convocation Academic Excellence Awards, 2001-3

Ferris State University Dean's List for eleven consecutive semesters, 1999-2004

Ferris State University President's Scholarship, 1997-2001

Ferris State University Honors Program member, 1997-2000

CURRICULUM VITAE

PERSONAL DATA

Name: Roger D. Kamen, O.D., M.S.

Home Address: 20810 Ross Parkway
Big Rapids MI 49307
(231) 592-1081

Work Address: Michigan College of Optometry
Ferris State University
1124 South State Street, Room 250
Big Rapids MI 49307
(231) 591-2189
kamenr@ferris.edu

EDUCATION

Undergraduate: Tulane University
New Orleans, Louisiana
September 1968 to May 1972

Professional: The Ohio State University
College of Optometry
Columbus, Ohio
September 1977 to June 1981

Graduate: The Ohio State University

Graduate School
Columbus, Ohio
June 1979 to June 1981

Duke University
Graduate School
Durham, North Carolina
August 1987 to June 1988

Florida State University
Graduate School of Business
Tallahassee, Florida
August 1990 to January 1991

Degrees: Bachelor of Science in Mechanical Engineering
Tulane University, May 1972

Doctor of Optometry (cum laude)
The Ohio State University, June 1981

Master of Science (Physiological Optics)
The Ohio State University, June 1981

AWARDS

Beta Sigma Kappa Silver Medal: Awarded to Valedictorian, Optometry
Class of 1981

Vincent J. Ellerbrock Memorial Award for original research in physiological optics, 1981

1980-1981

Research grant from the Central World Council of Beta Sigma Kappa,

the

Emil Arnold Award, Michigan Optometric Association, for contributions to

Michigan Optometrist Journal, 1999-2000

Professional Development Grant from Ferris State University to study/research the German Healthcare System at Heidelberg University in Germany. October, 2008

Healthcare and semester, 2010

Ferris State University approved sabbatical to study/research European Optometry, Bocconi University, Milan, Italy, Spring

PROFESSIONAL EXPERIENCE

Clinical Practice/Teaching/Management/Research

Researcher

2010

Sabbatical Leave, Spring Semester: Visiting

Bocconi University

Milan, Italy

2006 to present

Michigan College of Optometry

Professor

2001 to 2006	Michigan College of Optometry Associate Professor
2000 to 2001	Michigan College of Optometry Associate Professor and Acting Director of Clinics
1999 to 2000	Michigan College of Optometry Assistant Professor and Acting Director of Clinics
1998 to 1999	Michigan College of Optometry Assistant Professor
1997 to 1998	Michigan College of Optometry Assistant Professor and Acting Director of Clinics
1991 to 1997:	Michigan College of Optometry Ferris State University Director of Clinics and Assistant Professor

Teaching: Present/Previous

- ◆ OPTM 511: Introduction to Optometry
- ◆ OPTM 524: Geometric, Physical, and Visual Optics I
- ◆ OPTM 525: Geometric, Physical, and Visual Optics II
- ◆ OPTM 615: Practice Management 1
- ◆ OPTM 718: Practice Management 2
- ◆ OPTM 617: Public Health and Optometry

- ◆ OPTM 634: Pharmacological Management of Ocular Conditions
- ◆ OPTM 682: Seminar & Case Studies: Optometry Clinics 3-1
- ◆ OPTM 683: Seminar: Optometry 3-2
- ◆ OPTM 682: Clinical Instructor, Optometry 3-1
- ◆ OPTM 683: Clinical Instructor, Optometry 3-2
- ◆ OPTM 580: Clinical Instructor, Optometry 2-1
- ◆ OPTM 581: Clinical Instructor, Optometry 2-2
- ◆ OPTM 451: Lab: Ocular Health Assessment
- ◆ OPTM 452: Lab: Assessment of the Eye's Refractive Status
- ◆ OPTM 784: Supervision of interns on-campus and off-campus
- ◆ OPTM 785: Supervision of interns on-campus and off-campus
- ◆ OPTM 786: Supervision of interns on-campus and off-campus
- ◆ OPTM 813: Web Seminar
- ◆ OPTM 817: Research Project

Clinic Operations Management: 1991-2001

- ◆ Planning and Budgeting
- ◆ Scheduling of Interns, Faculty, and Staff
- ◆ Supervision of Clinic Support Personnel

Medicare Compliance Officer, Michigan College of Optometry 2002-Present

1988 to 1991:

- ◆ Florida State University:
Graduate Courses in Business/Clinical Practice
- ◆ North Carolina State University
Graduate Courses in Economics & Statistics/Clinical Practice

1987 to 1988:

- ◆ Duke University:
Research & Graduate Courses in Biomedical Engineering &
Medical Informatics

1981 to 1987:

Private practice in North Carolina and Ohio

1972 to 1976:

- ◆ Naval Supply Officer:
Management of Various Military Business Operations

PRESENTATIONS

- | | | |
|-----------------|------|---|
| Metropolitan | 2010 | Three hour CE presentation on Medicare coding and billing to Detroit Optometric Society |
| health care and | 2010 | Presentation on MCO Faculty Development Series on European optometry |
| Beuth Berlin | 2010 | Presentation on USA optometry to faculty and student body, University of Applied Sciences, Berlin Germany |
| optometry | 2009 | Presentation to MCO faculty on German health care and |
| | 2009 | Medical Coding and Billing presentation, MCO Capstone Seminar |
| | 2009 | Four hour CE presentation on Medicare/medical coding and billing to optometrists of Pearle Vision |
| | 2008 | Medicare Compliance presentation, Clinic Directors & Administrators SIG Annual Workshop and Educational Forum |

- 2008 Three hour CE presentation on Medicare/medical billing to optometrists and staff of Henry Ford OptimEyes
- 2006 Thirteen hour CE presentation on Medicare/medical coding and billing to optometrists and staff of Henry Ford OptimEyes
- 2005 Five hour CE presentation on Medicare/ medical coding and billing to optometrists and staff of Henry Ford OptimEyes
- 2011-2002 Annual 6 hour statewide Medicare Presentation for Michigan Optometrists and Staff
- 2000 Integrating Business Economics into Academic Clinics, Clinic Director/
Administrators Workshop, ASCO Workshop
- 2000 Modifying the Practice Management Curriculum Model, APME
- 1998 Concerns and Problems Faced by Practice Management Educators, Tenth Annual APME Conference
- 1997 Practice Management: Soliciting Thoughts and Ideas on the Collaboration
Between Clinic Administration and Practice Management Education, ASCO
Workshop
- 1997 Michigan Paraoptometric Association: Financial Management In the Optometric Practice
- 1996 Michigan Optometric Association: Medical Record Documentation

Conference

1995, 1996, 1998 FSU TPA Certification Course: Optometric Office Administration

1995-1998 Abstract Reviewer for "The Michigan Optometrist" in the area of practice management.

PUBLICATIONS

2010:
and Audits(with Mark
and Estate Planning(with

Author for four chapters in Business Aspects of Optometry, 3rd Edition, Quality Assurance; Managed Care, Third Party Reimbursement, Wright); Coding and Billing(with Mark Wright); Financial Larry Thal and John Classe)

Community,

Author for chapter in Optometric Care within the Public Health 2009: Medicare and Medicaid

Poster, A Complication of Retained Subretinal Perfluorocarbon Liquid Following Retinal Reattachment Surgery(with Bobbie Smalley, BS), American Academy of Optometry, 2007

Poster, Female Optometrists in Michigan: Their Careers and Families (with Laura Kenyon, OD), American Academy of Optometry, 2006

Editor, Business Aspects of Optometry, 2nd Edition, Butterworth Heinemann. Philadelphia, PA 2004.

Author (lead) for two chapters in Business Aspects of Optometry. Managed Care and Third Party Reimbursement; Medicare and Medicaid, 2004

Michigan.

Kamen, RD. Wisconsin Physicians Service: Medicare Part B Carrier for

The Michigan Optometrist, June 2001, Vol. 80, No. 6: 8-10.

Poster, Podiatry: Role Model for Optometry Board Certification,
American Academy of Optometry, 2000.

Kamen, RD. Are You Ready for Your Medicare Audit? The Michigan
Optometrist,

April 1999, Vol. 78, No. 4: 3-5.

Kamen, RD. Evaluation and Management Coding. The Michigan
Optometrist, July 1999, Vol. 78, No. 7: 12-15.

Kamen, RD. The Optometrist as the Patient. JAOA, 1998; Vol. 96, No.

8: 487-489

Kamen, RD. Accepted for publication pending revisions, Price Elasticity
of Demand and National Health Policy. JAOA, 1999.

Author (lead) for two chapters in Business Aspects of Optometry, 1997
(Managed Care and Third party Reimbursement: Medicare and
Medicaid).

Kamen, RD and Alexander KL. Applanation Conjunctival Semears – A
Rapid and Non-Invasive Technique. Southern Journal of Optometry
1983; Vol. 1, No. 7: 19-21.

Kamen, RD. The Cell Profile of the Normal Human Conjunctiva. Master
Degree Thesis; The Ohio State University, 1981.

PROFESSIONAL ORGANIZATIONS

- ◆ Consultant for the Council on Optometric Education 1999-Present
- ◆ Faculty Liaison to AOA 1998-1999
- ◆ Fellow, American Academy of Optometry 1995-Present
- ◆ Member, European Academy of Optometry and Optics, 2010-Present
- ◆ Member, American Optometric Association 1981-Present
- ◆ Member, Michigan Optometric Association 1991-present
- ◆ Member, American Public Health Association 1995-Present
- ◆ Member, Association of Practice Management Educators 1993-present
- ◆ Member, Association of Clinic Directors/Administrators, Schools and Colleges of Optometry. Positions Held: Vice-Chair and Chair 1991-2001

COMMITTEES

- ◆ Chair, MCO Dean Search Committee, 2009
- ◆ Chair, Medicare Committee, Michigan Optometric Association 2000-Present
- ◆ Chair, Practice Management Committee, Michigan Optometric Association 1998-Present
- ◆ Chair, Curriculum Committee, Michigan College of Optometry, 2008-2010
- ◆ Chair, Tenure Committee, Michigan College of Optometry, 2007-2009
- ◆ Chair, Promotion/Merit Committee, Michigan College of Optometry, 2006-2007
- ◆ Chair, Faculty Recruitment Committee, Michigan College of Optometry 1998-2001
- ◆ Chair, Academic Review Committee, Michigan College of Optometry 2001-2010
- ◆ Member, MCO Admission Committee 2010-Present
- ◆ Member, MCO Faculty Recruitment Committee 2010-Present
- ◆ Member Ophthalmic Optics Advisory Committee 2004-Present
- ◆ Track Coordinator, Curriculum Committee: Professional Development 2004-2010
- ◆ Member, Carrier Advisory Committee, Michigan Medicare 2000-Present
- ◆ Member, Clinical Affairs Committee, ASCO 1997-1998

- ◆ Member, Faculty Development Committee, Michigan College of Optometry 1998-2000
- ◆ Member, Long Range Planning Committee, Michigan College of Optometry 1998-Present
- ◆ Member, HIV-AIDS Task Force, Ferris State University 1995-1998
- ◆ Member, Health Screening Planning Committee, Mecosta County General Hospital 1996-2000
- ◆ Member, ASCO Ad Hoc. Curriculum Planning Group 1999-2001
- ◆ Member, Tenure Review Committee, Michigan College of Optometry, 2006-2009
- ◆ Member, Promotions/Merit Committee, Michigan College of Optometry 1991-2003, 2004-2009
- ◆ Member, Academic Review Committee, Michigan College of Optometry 1998-2010
- ◆ Member, Academic Program Review, Michigan College of Optometry 1998
- ◆ Member, Quality Conference Planning Committee, Ferris State University 1996
- ◆ Member, COE Self-study Committee, Michigan College of Optometry 1998

PROFESSIONAL OPTOMETRY LICENSES

- ◆ Michigan (with TPA)
- ◆ North Carolina (with TPA)

MICHAEL P. KEATING

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CURRENT POSITION

PROFESSOR (Optics)

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BIG RAPIDS MI 49307-2256

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E-mail: keatingm@ferris.edu

DEGREE/MAJORS

1972 Ph.D. Indiana University, Bloomington, IN

Thesis Area: Theoretical Nuclear Physics

1968 M.S. Indiana University, Bloomington, IN

Major: Physics Minor: Mathematics

1966 B.S. Creighton University, Omaha, NE

Double Major: Physics and Mathematics Minor: Philosophy

ADDITIONAL OPTOMETRY TRANSCRIPT CREDIT COURSES:

Physiological Optics (1,2), Optometric Methods (1,2), Microbiology, Biochemistry (1,2), General Anatomy including Histology, Head and Neck Anatomy including Ocular Anatomy, Neuroanatomy, Advanced Physiology (1,2), Ocular Physiology, Ocular Pathology and Pharmacology 1. Do not have transcript credit but have either taught in and/or sat in on courses in contact lenses, low vision, and ocular disease.

PROFESSIONAL POSITIONS

1992 - present Professor, Michigan College of Optometry, Ferris State University

2006 (Spring Semester) Visiting Professor, College of Optical Sciences, University of Arizona (sabbatical leave from Ferris)

1991 - 92 Associate Dean/Professor, College of Optometry, Ferris State University (half-time administrative, half-time faculty)

1990 - 91 Acting Dean, College of Optometry, Ferris State University
(July 1, 1990 - December 1, 1991)

PROFESSIONAL POSITIONS (cont.)

- 1989 - 90 Associate Dean/Professor, College of Optometry, Ferris State University (half-time administrative, half-time faculty)
- 1988 - 89 Acting Dean, College of Optometry, Ferris State University
(August 1, 1988 - October 2, 1989)
- 1984 - 88 Associate Dean/Professor, College of Optometry, Ferris State University (half-time administrative, half-time faculty)
- 1981 - 82 Visiting Professor, College of Optometry, University of Houston, Houston, TX
(sabbatical leave from Ferris)
- 1975 - 84 Faculty, College of Optometry, Ferris State University (Associate Professor 1975-81; Professor 81-present; Tenured in 1980)
- 1972 - 75 Faculty, Pennsylvania College of Optometry, Philadelphia, PA (Assistant Professor, 72-75; promoted to Associate Professor effective Fall 75)
- 1968 - 72 Research Associate, Physics Department, Indiana University
- 1966 - 72 Associate Instructor, Physics Department, Indiana University
- 1966 (Summer) Explosion Dynamics Division, Naval Ordnance Lab, Silver Springs, MD

1965 - 66 Senior Undergraduate Lab Instructor and Grader, Physics Department,
Creighton University, Omaha, NE

AWARDS/COMMENDATIONS

2009 Michigan Optometric Student Association: First Year Student Choice for
Outstanding Professor

2008 Ferris State University Student Government Faculty of the Year Award.

2005 Michigan Optometric Student Association: First Year Student Choice for
Outstanding Professor

2002 "Jack W Bennett Optometric Educator the Year" Award from the Michigan
Optometric Association

1996 Ferris State University Distinguished Teacher Award

AWARDS/COMMENDATIONS (cont.)

1994 Michigan Association of Governing Boards Distinguished Faculty Award

- 1992 "Extra Mile Award" from the Michigan Optometric Association for "twice serving as Acting Dean"
- 1991 "You Can Count on Me Award" from Metro Detroit Optometric Society for "twice assuming the mantle of Dean and serving in that capacity with distinction and honor."
- 1991 Certificate of Appreciation from the Ferris State University Board of Control together with the Administration for twice serving as Acting Dean and "providing outstanding leadership, untiring devotion to his duties, and sincere care and concern for the vitality and well-being of the College of Optometry."
- 1988 Certificate of Appreciation from Ferris Vice President for Academic Affairs, E. Gary Nash, Ph.D., and the College of Optometry Faculty and Staff for "Continued Outstanding Service and Dedication to Ferris State University"
- 1979 "The College, A Living Symbol" Award, College of Optometry, Ferris State University.
- 1977 Commended (along with Dr. Bob Carter and Dr. Vincent King) by the Ferris Board of Control "for dedication and performance under the difficult circumstances of the past two years."
- 1972 Indiana University Physics Department Award for Outstanding Performance as an Associate Instructor.

PUBLICATIONS/BOOKS

M.P. Keating, **Geometric, Physical, & Visual Optics**, 2nd ed, St Louis: Butterworth-Heinemann, 2002.

1st ed, Boston: Butterworth-Heinemann, 1988.

PUBLICATIONS/JOURNALS

Contributor to Chapters 26, 27, and 28 of "*Butterworth Heinemann's Review Questions from the NBEO Examination, Part two.*" Edited by Edward Bennett and Vasudevan Lakshminarayanan. St Louis: Butterworth – Heinemann, 2006.

Keating MP, Harris WF, & van Gool RD (2002). Relation Between Anterior and Posterior Converter Systems. *Optometry Vision Science* 79:459-61.

Keating MP (1998). Book Review of "*Isaac Barrow's Optical Lectures 1667*" Translated from Latin by H.C. Fay. Edited by A. G. Bennett and D. F. Edgar. London: *The Worshipful Company of Spectacle Makers*. 1998. Review published in *Optometry and Vision Science*. 1999;76:77-76.

PUBLICATIONS/JOURNALS (cont.)

Keating MP (1997). Equivalent Power Asymmetry Relations for Thick Astigmatic Systems. *Optometry*

Vision Science 74:388-92.

Keating MP (1997). Asymmetric Dioptric Power Matrices and Corresponding Thick Lenses. Optometry

Vision Science 74:393-96.

Keating MP (1997). Completely Dioptrically Equivalent Systems. Vision Science and its Applications. Optical Society of America Technical Digest Series 1:156-9. (More of a meeting presentation, but there was some minor refereeing of this paper.)

M.P. Keating, "Oblique Central Refraction in Spherocylindrical Corrections with Both Faceform and

Pantoscopic Tilt," Optometry and Vision Science 72 (1995) 258-65.

M.P. Keating, "Oblique Central Refraction in Spherocylindrical Lenses Tilted Around an Off-Axis Meridian," Optometry and Vision Science 70 (1993) 785-91.

M.P. Keating, Book Review on "Optics and Refraction, A User-Friendly Guide" by David Miller. Journal of Optometric Education 18 (1993) 94.

W.F. Harris & M.P. Keating, "Proof that the Prismatic Effect is Perpendicular to the Lens Thickness Contour," Optometry and Vision Science 68 (1991) 459-60.

M.P. Keating, "Sabbatical Leaves," Journal of Optometric Education (Issue Devoted to Faculty Development), 1991.

M.P. Keating, "Dioptric Power in an Off-Axis Meridian; The Torsional Component," American Journal of Optometry and Physiological Optics 63 (1986) 830.

M.P. Keating, "Minimum Separation Not Always Occurring at the Symmetry Points," Journal of Optometric Education 9 (1984) 13.

L.B. Godio and M.P. Keating, "Clinical Determination of the Corrected Retinal Image Size in Spectacle-Corrected Aphakes," American Journal of Optometry and Physiological Optics 61 (1984) 160.

L.B. Godio and M.P. Keating, "Retinal Images and Astigmatic Distortions in the Individual Corrected Aphakic Eye," Applied Optics 22 (1983) 1221.

M.P. Keating, "On the Use of Matrices for the Mean Value of Refractive Errors," Ophthalmic and Physiological Optics 3 (1983) 201.

M.P. Keating, "The Aniseikonic Matrix," Ophthalmic and Physiological Optics 2 (1982) 193.

M.P. Keating, "A Matrix Formulation of Spectacle Magnification," Ophthalmic and Physiological Optics 2 (1982) 145.

PUBLICATIONS/JOURNALS (cont.)

M.P. Keating, "Advantage of a Block Matrix Formulation for an Astigmatic System," American Journal of Optometry and Physiological Optics 59 (1982) 851.

M.P. Keating, "A System Matrix for Astigmatic Systems: II. Corrected Systems and the Astigmatic Human Eye," *American Journal of Optometry and Physiological Optics* 58 (1981) 919.

M.P. Keating, "A System Matrix for Astigmatic Systems: I. Introduction and Dioptric Power Relationships," *American Journal of Optometry and Physiological Optics* 58 (1981) 810.

M.P. Keating, "Lens Effectivity in Terms of Dioptric Matrices," *American Journal of Optometry and Physiological Optics* 58 (1981) 1154.

M.P. Keating, "Rayleigh's Criterion: Why 1.22? An Intuitive Answer Without Using Bessel Functions," *Journal of Optometric Education* 6 (1980) 19-22.

M.P. Keating, "An Easier Method to Obtain the Sphere, Cylinder, and Axis from an Off-Axis Dioptric Power Matrix," *American Journal of Optometry and Physiological Optics* 57 (1980) 734.

M.P. Keating, "The Relation Between Lateral Magnification and Angular-Magnification for a Simple Magnifier," *American Journal of Physics* 48 (1980) 214.

M.P. Keating, "Reading Through Pinholes: A Closer Look," *American Journal of Physics* 47 (1979) 889.

M.P. Keating & J.P. Carroll, "Blurred Imagery and the Cylinder Sine-Squared Law," *American Journal of Optometry and Physiological Optics* 53 (1976) 66.

M.P. Keating, "A Theoretical Analysis of Off-Axis Streak Retinoscopy," American Journal of Optometry and Physiological Optics 52 (1975) 750.

M.P. Keating, "Vergence, Vision, and Geometric Optics," American Journal of Physics 43 (1975) 766.

M.P. Keating & J.G. Wills, "Pion Production by 185 MeV Protons," Physical Review C7 (1973) 1336.

M.P. Keating & J.G. Wills, "Proton - Nucleus Scattering and the Nuclear Forward Scattering Amplitude," Physical Review C5 (1972) 1572.

MANUSCRIPTS - used by students in optometry courses:

Geometric, Physical, and Visual Optics Lab Manual

Ophthalmic Optics Class Notes (in lieu of a required text)

Introduction to Photometry (2008)

NATIONAL PRESENTATIONS

Virtually all published papers have been presented at national or international meetings. In addition, several presentations of unpublished works have been made. Meetings have included American Academy of Optometry, American Association of Physics Teachers, American Physical Society, Optical Society of America, and two International Research Meetings on Astigmatism and Visual Optics.

TEACHING EXPERIENCES

General Physics, Geometric Optics, Physical Optics, Visual Optics, Ophthalmic Optics, Optics of Low Vision Aids, Photometry, Colorimetry, and assorted topics in Physiological and Clinical Optics.

PROFESSIONAL ORGANIZATIONS

American Academy of Optometry, American Association of Physics Teachers, Optical Society of America, Michigan Optometric Association

NATIONAL COMMITTEES

1995 - 96 Advisory Committee, Association of Schools and Colleges of Optometry - Ophthalmic Optics Special Interest Group.

1992 Optics Recorder, American Optometric Association and Schools and Colleges of Optometry - Summit on Optometric Education Curriculum Conference.

1988 - 89 & 1990 - 91 Board Member, Association of Schools and Colleges of Optometry (by virtue of Ferris Acting Dean position).

1989 - 90 Association of Schools and Colleges of Optometry - Standing Committee on Academic Affairs.

1985 - 86 Examination Revision Committee of the National board of Examiners in Optometry.

1980 - 86 Optics Test Construction Committee of the National Board of Examiners in Optometry.

1981 American Association of Physics teachers Ad Hoc Planning Committee for Session on the Teaching of Light, Color, and Vision at the Annual Summer Meeting, 1981.

1980 Chairperson, Association of Schools and Colleges of Optometry Ad hoc Committee on Curriculum Model and National Board Outlines in Theoretical Optics and Ophthalmic Optics.

1975 - 80 Association of Schools and College of Optometry - Council on Student Affairs.

MISCELLANEOUS PROFESSIONAL ACTIVITIES

EXTERNAL REVIEWER FOR THE FOLLOWING Ph.D. THESES:

- "Refractive Variations under Accommodative Demand" by R. Van Gool, Rand Afrikaans University, Auckland Park, Johannesburg, South Africa. (2000)
- "Surfaces of Constant Visual Acuity in Symmetric Dioptric Power Space" by A. Rubin, Rand Afrikaans University, Auckland Park, Johannesburg, South Africa. (2001)
- "The Effects of Light and Dark Conditions on Refractive Behavior" by W Gillan, Rand Afrikaans University, Auckland Park, Johannesburg, South Africa. (2004)

Invited presentation to the Association of Schools and Colleges of Optometry's Ophthalmic Optics Special Interest Group (ASCO – OO SIG) meeting on the use of Journal Writing in Optics Courses (July 2009).

Visiting Optics Professor, Ramkhamhaeng University in Bangkok Thailand . Taught Optics 1 and 2 short courses. (August 2003)

Section Chair, Mopane 2003 Astigmatism, Aberrations, and Vision. Mopani Camp, South Africa (August 2003).

Ferris State University Academic Program Review Council (2002-2004)

Search Committee for Ferris State University Vice President for Academic Affairs (1998)

Ferris MAGB Distinguished Faculty Selection Committee 1996-2002.

Chairperson, Criterion One Committee, Ferris North Central Accreditation Self Study, 1992 - 94.

Served on Ferris Distinguished Teacher Selection Committee (1977 - 78, Chairperson 1978 - 79, 1992 - 93, Chairperson 1993 – 94, 2006-08, Chairperson 2007-08).

Referee for numerous papers submitted for publication in “Optometry and Vision Science” and "Ophthalmic and Physiological Optics (1975 - present).

Lens Design Consultant for Unilens Corporation, Largo Florida, 1992.

Took over as Chairperson of the Ferris Radiation Safety Advisory Committee after the 1985 Pharmacy Building Contamination incident, and remained Chairperson until the full restoration of the Ferris Radiation-Use license by the Nuclear Regulatory Commission.

Served on Ferris Representative Faculty Advisory Committee (1975 - 77).

MISCELLANEOUS PROFESSIONAL ACTIVITIES (cont.)

Presenter and advocate for the name change to Ferris State University in the 1985 Ferris public debate on Name Change/University Status.

Presenter at Ferris “Writing Across the Curriculum” Workshops (1985 - 86, and 1986 - 87).

Miscellaneous Multiple Presentation including Ferris Parent's Days, and Ferris Optometry Seminars. Have also presented Ferris Seminar (College of Arts & Science), University of Houston Optometry Seminar, Indiana University Physics Seminars.

Resource person (1982 - 95) for Ferris Apple Microcomputer User Group.

Resource person for University of Houston, College of Optometry, graduate students studying for optics proficiency exam, (1981 - 82).

Optics instructor for Enefiok (James) Nkanga, Ph.D., and Theophilus Alozie, Ph.D., in the University of Houston Ph.D. - O.D. program for Nigerians, (1981 - 82).

Consultant, University of Houston M.S. research of Youmay Ogboso. Thesis entitled, "Magnitude of Lateral Chromatic Aberration Across the Retina of the Human Eye," (1981 - 83).

Presenter, Workshop on "Physics Teaching and the Development of Reasoning," Michigan Association of Physics teachers, Spring, 1976, Lansing, Michigan.

Faculty Advisor for student paper by W.V. Padula & C. Rinehart, "Predicting Field of View - Taking Account of Vignetting," which appeared in Optical Journal and Review of Optometry 112, (1975) 35.

Did diffraction calculations discussed and shown in appendix to paper published by K.D. Higgins & E.J. Rinalducci in Vision Research 15, (1975) 129.

Developed a faster and more accurate way to compute Coulomb wavefunctions. Part of Ph.D. Thesis (1972) pg. 73, Indiana University Physics Department Library and computer codes at the Indiana University Cyclotron Facility.

Modified TRANSPORT, an ion optics computer program so that it was compatible with the Indiana University computer, and ran initial calculations for the beam transport system for the Indiana University Cyclotron Facility, (1968).

COMMUNITY/CHURCH ACTIVITIES IN BIG RAPIDS

Big Rapids Community Library Board (2001-2005, 1982 - 94, Chair multiple times)

Mecosta-Osceola United Way Allocation Panel (2000-2005, 2007-2009, Panel Chair multiple times)

MCO Relay for Life Team (2000-2007)

CROP Walk for Hunger (Recruiter, 1984 - 88; Steering Committee and Route Coordinator, 1989 – 92, participant 1984-2003)

Coach of numerous kids' soccer teams (1979 – 1992)

Mecosta County 4-H Council (1985, President 1986 & 87)

Judge for 4-H Ambassadors - County Fair (numerous times)

St. Mary's Home and School Association Board (1979 - 80, Vice President 1980 - 81)

St. Paul's Campus Parish DEKA 1 Group Leader (A marriage enrichment program for people married at least one decade)

St. Paul's Campus Parish Pre-marriage Group Leader (multiple times - many Ferris students and alumni have gone through this program)

St. Paul's Campus Parish RENEW Group Leader

St. Paul's Campus Parish CCD Instructor (during the time when my children were in CCD).

CURRENT RECREATIONAL ACTIVITIES:

Competitive orienteering, Orienteering Meet Director, Southern Michigan Orienteering Club Competition Director (2008 - present), playing with/reading to grandkids, visiting art galleries, reading historical novels and some history books, attending theater productions, traveling, listening to classical music, reading a little poetry, hiking, biking, sailing, downhill skiing, cross country skiing.

Karen Kehbein, O.D.

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kehbeik@ferris.edu, (810) 623-0471

Education:

Indiana University School of Optometry

Bloomington, IN; Doctor of Optometry degree; August 2005-May 2009;

Graduated: May 2009

University of Michigan

Ann Arbor, MI; Bachelor of Science in Chemistry; August 2001-April 2005;

Graduated: April 2005

Residency:

Pediatric and Vision Therapy

Southern College of Optometry; July 2009-June 2010

Direct pediatric patient care- Summer 2009-Summer 2010

Pediatrics Clinic-Attending doctor to 3rd and 4th year students, Fall 2009-Summer 2010

Vision Therapy Clinic-Attending doctor to 3rd and 4th year students, Summer 2009-Summer 2010

Vision Therapy-lab instructor, Summer 2009

Theory and Methods-lab instructor, Spring 2010-Summer 2010

Employment:

Assistant Professor

Michigan College of Optometry; August 2010-present

Pediatrics and Binocular Vision clinic-Attending doctor to 3rd and 4th year students, Fall 2010-present

Treatment of Accommodative & Binocular Dysfunction-lab instructor, Summer 2011

Diagnosis of Accommodative and Binocular Dysfunction-lecturer, lab coordinator, Spring 2011

Developmental and Pediatric Optometry-lab instructor, Fall 2010

Athletic and Residence Hall Vision Screening-Coordinator and attending doctor, Fall 2010

Associate Instructor

Indiana University School of Optometry; August 2006-May 2008

Geometric and Visual Optics- discussion and lab instructor to 1st year students

Assisted in revision of the laboratory curriculum

Dean's Summer Research Scholar

Indiana University School of Optometry; May 2006-July 2006

Created research protocol and examined glaucoma drug effects on cornea aquaporin channels

Professional Memberships:

InfantSEE

April 2011-present

College of Optometrists in Vision Development (COVD)

March 2008-present

Michigan Optometric Association (MOA)

February 2011-present

American Optometric Association (AOA)

October 2009-present

Tennessee Optometric Association (TOA)

October 2009-July 2010

West Tennessee Optometric Association (WTOS)

August 2009-July 2010

Professional Licenses:

Optometrist

State of Michigan (4901004591)

Diagnostic/Therapeutic Pharmaceutical Agents Certified

Expires 06/30/2013

Optometrist

State of Tennessee (OD0000002873)

Injectible certification

Therapeutic certification

Expires 09/30/2011

Committee Work:

Academic Review Committee

Michigan College of Optometry, Spring 2011

Participated in hearings for 5 students on academic probation

Promotion and Merit Committee

Michigan College of Optometry, Spring 2011

Reviewed 1 candidate profile for promotion and 3 candidate profiles for merit

Curriculum Committee

Michigan College of Optometry, Fall 2010-present

Approved change in course/credit listing for Pharmacology and Anatomy/Physiology

Student Recruitment Committee

Michigan College of Optometry, Fall 2010-present

Community Involvement:

MCO Social Club

Big Rapids, MI; April 2011-present

Organized social activities for faculty, staff, and administrators at the Michigan College of Optometry

Grand Rapids Children's Museum

Grand Rapids, MI; March 2011

Volunteered as part of Children's Vision Day at the museum

Student Volunteers for Optometric Service to Humanity

Oktoberky, Belarus; May 2010

Served as a staff doctor on trip to schools in Belarus to provide over 500 vision exams to underprivileged children living in rural Belarus

Merida, Mexico; August 2009

Served as a staff doctor to assist students with providing over 800 vision exams to underprivileged

residents

Elementary School Vision Screenings

Memphis, TN City and County Schools; September 2009-April 2010

Shelbyville, KY Community Schools; September 2008-October 2008

Bloomington, IN Community Schools; September 2007-November 2007

Provided vision screening exams to over 1000 elementary and middle school students

Grants:

Timme Travel Grant

Ferris State University, April 2011

Funding in the amount of \$700 to attend the College of Optometrist's 41st Annual Meeting

Presentations:

Kehbein K. Vision is more than 20/20. Continuing Education lecture, Western University College of Optometry; Pomona, CA; May 2010.

Kehbein K, Schuelke A. Case Presentations: A Resident's Perspective. Guest Lecture, Vision Therapy Class, Southern College of Optometry; Memphis, TN; February 2010.

Kehbein K. Infant Development Stages. Case Presentation, Michigan Vision Therapy Study Group Meeting; Grand Rapids, MI; January 2010.

Posters:

Kehbein K. Down Syndrome and Vision Therapy: A Case Report. Poster Session, International Congress of Behavioral Optometry Meeting; Ontario, CA; April 2010.

Steinman S, Keener B, Kehbein K. VEP for the Primary Care Optometrist. Poster Session, International Congress of Behavioral Optometry Meeting; Ontario, CA; April 2010.

Schuelke A, Kehbein K. Agenesis of the Corpus Collosum and Visual Function. Poster Session, COVD Annual Meeting; Denver, CO; October 2009.

Publications:

Kehbein K, Taub MB. Intellectual Disability of Unknown Etiology. Chapter in: *Vision and the Special Needs Patient: Diagnosis and Management*, by Marc B. Taub, Mary Bartuccio, and Dominick M. Maino, Philadelphia: Lippincott Williams & Wilkins: in progress.

McNaughton B, Kehbein K, et al. Sudden Breakdown in Linear Response of a Rotationally Driven Magnetic Microparticle and Application to Physical and Chemical Microsensing. *Journal of Physical Chemistry B*, 2006, 110, 18958.

Giner JL, Kehbein K, et al. Synthesis of Fluorescent Derivatives of Wortmannin and Demethoxyviridin as Probes for Phosphatidylinositol 3-kinase. *Bioorganic & Medicinal Chemistry Letters*. 2006, 16, 2518.

Joshua T. Lotoczky, O.D.

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Big Rapids, MI 49307

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Appointments

2010-Present	Associate Professor Michigan College of Optometry
2006-2010	Assistant Professor Michigan College of Optometry
2005	Clinical Faculty Michigan College of Optometry

Education

Residency	Cornea and Contact Lenses Michigan College of Optometry Big Rapids, MI July 2004 to June 2005
Professional	Doctor of Optometry Michigan College of Optometry Ferris State University Big Rapids, MI

September 2000 to May 2004

Undergraduate Bachelor of Science in Biology
Central Michigan University
Mount Pleasant, MI

September 1993 to May 1998

Professional Experience

2010-Present Michigan College of Optometry
Associate Professor

2006 to 2010 Michigan College of Optometry
Assistant Professor

2006 to Present Wink Productions
Consultant for Optometric Training Videos

Professional Experience (cont.)

2005 to 2006 Michigan College of Optometry
Clinical Faculty

2004 to 2005 Gary Fowle and Associates
Optometrist

2004 to 2005 Michigan College of Optometry
Cornea and Contact Lenses Resident
Art Optical Contact Lens, Lens Design and Fitting
Consultant
Verdier Eye Center, Cornea and Glaucoma
Specialists
West Michigan Eyecare, Primary Care
Grand Rapids Ophthalmology, Primary Care

2002 to 2003 Michigan College of Optometry
Work Study

1997 Pearle Vision
Store Manager

1992 to 2000 Pearle Vision
Optician

Teaching and Advising

Courses:

2010-2011

- OPTM 730, Physical Examination & Diagnostic Procedures (course master)
- OPTM 759, Clinical Problem Solving III(course master)
- OPTM 648, Contact Lenses I (instructor and laboratory coordinator)
- OPTM 749, Contact Lenses II
- OPTM 736, Ocular Disease II- Laboratory

2009-2010

- OPTM 730, Physical Examination & Diagnostic Procedures(course master)
- OPTM 648, Contact Lenses I (instructor and laboratory coordinator)
- OPTM 749, Contact Lenses II
- OPTM 758, Clinical Problem Solving II (course master)
- OPTM 759, Clinical Problem Solving III (course master)
- OPTM 736, Ocular Disease II- Laboratory

Courses (cont.)

2008-2009

- OPTM 730, Physical Examination & Diagnostic Procedures (course master)
- OPTM 648, Contact Lenses I
- OPTM 749, Contact Lenses II
- OPTM 758, Clinical Problem Solving II (course master)
- OPTM 759, Clinical Problem Solving III (course master)
- OPTM 736, Ocular Disease II- Laboratory

2007-2008

- OPTM 730, Physical Examination & Diagnostic Procedures (course master)
- OPTM 648, Contact Lenses I
- OPTM 749, Contact Lenses II
- OPTM 758, Clinical Problem Solving II (course master)
- OPTM 759, Clinical Problem Solving III (course master)
- OPTM 736, Ocular Disease II- Laboratory

2006-2007

- OPTM 730, Physical Examination & Diagnostic Procedures (course master)
- OPTM 658, Clinical Problem Solving II (course master)
- OPTM Clinical Screenings (Sports and Residence Hall Screenings)
- OPTM 682 Patient Simulation
- OPTM 736, Ocular Disease II- Laboratory
- OPTM 648, Contact Lenses I
- OPTM 649, Contact Lenses II

2005-2006

- OPTM 560 Contact Lens I Laboratory
- OPTM 682 Patient Simulation
- OPTM 813 Moderator for WebCT Group Activities

Cornea and Contact Lens Residency Instructor/Supervisor (2006-Present)

Responsibilities include:

- Coordinating the resident's clinical schedule
- Conducting quarterly evaluations
- Providing clinical guidance and supervision
- Analyzing patient logs to insure goals of the residency are being met
- Providing advance cornea and contact lens lectures
- Composing the ACOE annual residency report

Senior Project Advisor (2005-present)

- The Accuracy of Simulated Fluorescein Patterns Produced by Medmont Studio with a Medmont Corneal Topographer in Comparison to Actual Fluorescein Patterns Observed with Gas Permeable Lenses of Identical Parameters, 2010

Senior Project Advisor (cont.)

- Relationship between crossed ocular dominance and reading performance in 2nd graders, 2010
- A Visual Acuity Comparison of Silicone Hydrogel and Large Diameter Rigid Gas Permeable Contact Lenses, 2009
- Comparison of Comfort and Visual Acuity of Two Toric Silicone Hydrogel Contact Lenses, 2009
- The Effect of NIKE Maxsight Contact Lenses on Golfer's Performance, 2007-2008
- Effect of different Light Sources on Matching Paint Chip Samples, 2006
- Effect on the Lanthony Desaturated D-15 Test when Adapting to Sodium Vapor Lamp, 2006
- Is There a Difference In Intraocular Pressure Measured with a Soft Contact Lens and Without Using FLURASAFE™?, 2005

Clinical Instruction:

2004-Present

- Clinical preceptor for 2nd, 3rd, and 4th year primary care and contact lens clinics

2005-2008

Chief of the Inter-professional Wellness Clinic

- About the clinic:
 - This is a clinic that involves the nursing and pharmacy students from Ferris State University
 - All patients are given a cholesterol and glucose workup and have the opportunity to discuss their medications with a pharmacist
- Duties include:

- Coordinating all clinical activity and operations
- In 2007, I expanded the clinic from 2 to 4 hours.
- Designed a WebCT shell to increase communication between the different disciplines
- Coordinate letters to the patients primary care provider

Additional Lectures:

- **Association of Schools and Colleges of Optometry/Ciba Vision Guest Lecturer Program**
Irregular Cornea Management, New England College of Optometry,

2010
- **Guest Lecturer at MCO (2005-2006)**
 - Practice Management
 - Residencies and Teaching
 - Ocular Anatomy
 - Cornea (1hr)
 - Retina (1hr)
 - Angle/ Glaucoma (1hr)

Additional Lectures (cont.)

- Contact Lenses I and II
 - Optics of Contact Lenses (2hrs)
 - Contact Lens Consultation Services (1 hr)
 - Fitting the Irregular Cornea (2hrs)
 - Contact Lens Solutions (2hrs)
- **Diabetic Support Group at Mecosta County Medical Hospital**
 - Ocular Manifestations of Diabetes

Coordinator and Preceptor for Contact Lens Workshops

2003-Present

- Patient Education workshop, 2007-Present
- Gas Permeable Lens Institute Workshop, 2005-Present
- Teague Toric Workshop, 2007-Present
- Cooper Toric Workshop, 2003-2006
- Cooper Multifocal Workshop, 2005-Present

Advisor for Optometric Student Government (OSG) (2007-present)

Pre-Optometry Undergraduate Advisor (2005-2010)

Co-Facilitator for 4th year round table contact lens discussions (2005- Present)

Co-Facilitator for Clinical Seminar III disease case presentations (2004-2006)

<i>Scholarship</i>

Contact Lens Research/Grants:

2010-Present Caroline P, Koch T, Johnson M, **Lotoczky J**, Morgan B, Witte E. Art Large Diameter Corneal (ALDC) Lens Design Patient University/Michigan College of Optometry Trials (Pacific

2010-Present **Lotoczky J**, Witte W, Pavlik S, Morgan B (Grant Funding Pending)The Role of Soft Multifocal Contact Lens Use in Children to Slow Myopic Progression

2009-2010 **Lotoczky J**, Morgan B, Buckingham B, Al-Delaigan B. Clinical Evaluation of the Biexpert Multifocal Lens

2007-present Morgan B, **Lotoczky J**, Dinardo A. Click and Fit, GPLI Lens Fitting Program

2007-2008 **Lotoczky J**, Morgan B, Dinardo A. Myopia Control using Euclid Emerald

Contact Lens Research/Grants cont.

2007-2008 **Lotoczky J**, Morgan B, Dinardo A, Pole J, Hinkley S. Clarity Multifocal Contact Lens Study

2004-2005 Phase II, 2005-2007

Mika R, Morgan B, Cron M, **Lotoczky J**, Pole J. Safety and Efficacy of Overnight Orthokeratology in Myopic Children

2006-2007 Morgan B, Potter R, Pole J, **Lotoczky J**. Viscon MSD Mini-Scleral Design

2007 Dinardo A, **Lotoczky J**, Morgan B. Lens Alert for Contact lens Compliance, (pending funding)

2006-2007 Potter R, **Lotoczky J**, Morgan B, Pole J. Factors Behind Presbyopic Lens Design Performance Issues, Renovation Multifocal Contact Lenses Study

2006 **Lotoczky J**. Dakota Sciences, Provided Fitting Information and Photography Used to Develop the SO2 Clear Fitting Guide

2006 **Lotoczky J**. Anterior Segment Photography for Art Optical Renovation Aspheric Multifocal Contact Lens

Continuing Education Lectures:

2009 Update on Ocular Surface Disease, Michigan College of Optometry Summer CE in Big Rapids

2007	National Board of Examiners in Optometry Part III Contact Review Course	Lens
2005	Ocular Surface Disease, Michigan College of Optometry Summer CE in Big Rapids	
2004	Gas Permeable Bifocal Contact Lens Options, Presented at the Michigan Optometric Association Contact Lens and Care Educational	Primary

Posters:

2010	Witte E, Lotoczky J , Morgan B. Utilizing a Semi-Scleral GP Lens Design in a Patient with Fuch's Dystrophy Complicated by Severe Corneal Astigmatism due to Penetrating Keratoplasty, <i>American Academy of Optometry</i>
2010	Lotoczky J , Morgan B, Buckingham B, Al-Delaigan B, Clinical Evaluation of the Biexpert Multifocal Lens, <i>Global Specialty Lens Symposium</i>

Posters (cont.)

2009	Peterson R, Wruble B, Lotoczky J . Overall Golf Performance Evaluation: Nike MAXSIGHT grey-green sport-tinted contact lenses, <i>American Academy of Optometry</i>
2009	Lotoczky J , Morgan B, Buckingham R. Myopia Control with the Euclid Emerald Contact Lens and Overnight Orthokeratology, <i>American Optometric Association</i>
2007	Morgan B, Lotoczky J , Potter R, Evaluation of the msd Contact Lens in Keratoconus Patients, <i>Global Lens Symposium</i>

- 2006 Potter R, Wieringa J, Pole J, **Lotoczky J**. Using the “Yellow Rule” on Corneal Topography to Predict Successful Initial Base Curve Selection in Keratoconic RGP Lens Fitting, *American Academy of Optometry*
- 2006 Jarvi E, Durst S, Buckingham, R, Rider J, Morton A, Carey M, **Lotoczky J**. Two-Year Experience with a University-based Inter-professional Diabetes Clinic in a Rural Community, *American Association of Colleges of Pharmacy*
- 2005 **Lotoczky J**, Pole J, Walling P. Posterior Keratoconus Previously Diagnosed as Amblyopia, *American Academy of Optometry*
- 2005 **Lotoczky J**, Walling P, Peterson-Klein N. Vitreomacular Traction Syndrome Discovered with Ocular Coherence Tomography, *American Academy of Optometry*
- 2004 **Lotoczky J**, Morgan B, Buckingham R. Evaluation of a New Gas Permeable Multifocal Lens Design, *American Academy of Optometry*

Publications:

- 2007 Mika R, Morgan B, Cron M, **Lotoczky J**, Pole J, Safety and Efficacy of Overnight Orthokeratology in Myopic Children, *Optometry-Journal of the American Optometric Association*, 2007 Volume 78, Issue 5, Pages 225-231

Consultant for the Onsite Team for Part III of the Nation Board of Examiners in Optometry (2010-present)

Consultant for Accreditation Council on Optometric Education (ACOE)

2007-Present

- Team Member for Indiana University Cornea and Contact Lens accreditation site visit, November 2008

Service

Michigan College of Optometry Committee Service

- Chair of the Electronic Medical Records Committee 2008-present
- Chair of the Facilities, Technology, and Web Presence Committee 2010-present
- Member of the MCO Admissions Committee 2010-present
- Member of the Strategic Planning and Assessment Committee 2010-present
- Member of the ASCO Educational Technology SIG 2009-Present
- Clinic Council, Elected Faculty Member, 2007-Present
- Member of Library and Technology Utilization Committee 2006-2010
- Chair of the Visual Acuity System task force, 2009-2010
- Member of Student Recruitment Committee 2006-2009

Ferris State University Committee Service

- Member of the Institutional Review Board (formerly called Human Subjects Research Committee), 2008-Present

Faculty Judge for AOSA-Vistakon Travel Grant Essay Contest 2007

Faculty Judge for AOSA Ophthalmic Super Bowl, 2009-Present

2nd Annual Summer Institute for Faculty Development (3 Day Workshop); Association of Schools & Colleges of Optometry, St. Louis, 2007

Represented MCO at the following meetings and workshops:

- 2011
 - Contact Lens Educators Meeting sponsored by B & L
 - Global Specialty Lens Symposium
 - Association of Contact Lens Educators
- 2010
 - Association of Contact Lens Educators

- American Academy of Optometry
- Contact Lens Educators Meeting sponsored by B & L
- Global Specialty Lens Symposium
- 2009
 - Association of Contact Lens Educators
 - Contact Lens Educators Meeting sponsored by B & L
 - Ciba Contact Lens Educators Meeting
 - American Academy of Optometry
 - American Optometric Association annual meeting
- 2008
 - Association of Contact Lens Educators
 - Contact Lens Educators Meeting sponsored by B & L
 - Global Keratoconus Congress

Meetings and workshops (cont.)

- 2007
 - American Academy of Optometry
 - Association of Contact Lens Educators
 - Contact Lens Educators Meeting sponsored by B & L
 - Global Keratoconus Congress
- 2006
 - American Academy of Optometry
 - Contact Lens Educators Meeting sponsored by B & L
 - Ciba Vision Silicone Hydrogel Educators Meeting
- 2005
 - American Academy of Optometry
 - Global Orthokeratology Symposium
- 2004
 - American Academy of Optometry
 - Global Orthokeratology Symposium
 - GPLI Residents Symposium Weekend

New Faculty Transition Programs (2hr workshops); Faculty Center for Teaching and Learning, 2006-2007

- Lecturing as an Active Teaching Tool
- Writing Effective Tests
- Ways to Conduct & Manage Classroom Discussions
- Motivating Students to Learn: Relationship Driven Teaching and Other Ideas.
- Introduction to FerrisConnect
- Five Elements of a Learner Centered Practice

New Employee Workshop (1 week); Faculty Center for Teaching and Learning, 2006

Lasik and Orthokeratology Screenings; Summer University, 2006

Professional Organizations

- Michigan Optometric Association
- American Optometric Association
- American Academy of Optometry

Additional Capabilities

- Visante OCT
- GDx
- OCT
- Fundus and Anterior Segment Cameras
- CPS (Classroom Performance System)
- Medmont Topographer
- Humphrey Visual Field

Honors and Achievements

- MOSA 2nd Year Class Student Choice Award for Outstanding Professor, 2009
- AOA Section on Cornea and Contact Lenses Resident Travel Fellowship, 2004
- GP Contact Lens Clinical Excellence Award, 2003-2004
- Dean's List, Michigan College of Optometry, 2000-2003
- Golden Key National Honor Society, Central Michigan University, 1993-1998

Licensure/Certification

- **Optometry License**, State of Michigan
 - DPA & TPA Certified
- Basic Life Support/CPR Certification
- FerrisConnect Certification
- Orthokeratology Certification Program, Polymer Technology
- Paragon CRT Certification

Curriculum Vitae

October 14, 2010

Dean L. Luplow, O.D.

Assistant Professor

Michigan College of Optometry

Ferris State University

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Big Rapids, MI 49307

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Email: luplowd1@ferris.edu

Education

- Doctor of Optometry, awarded with highest distinction, Ferris State University, Big Rapids, MI, May 1989.
- Bachelor of Science in Vision Science, awarded with highest distinction, Ferris State University, Big Rapids, MI, May 1989.
- Bachelor of Science in Biological Sciences, awarded with honor, Michigan Technological University, Houghton, MI, May 1976 with Michigan Secondary Teaching Certification.

Internships

- Wurtsmith Air Force Base, Oscoda, MI, January 1989 to May 1989.
 - Primary care optometry for Air Force active duty personnel and dependents.
- Ferris State University College of Optometry, Big Rapids, MI, September 1988 to December 1988.
 - Participation in specialty clinics in contact lenses, ocular pathology, low vision, pediatrics, and binocular vision.
- State Prison of Southern Michigan, Jackson, MI, May 1988 to August 1988.
 - Primary care optometry in a 7,000 inmate facility.

Educational Awards

- Ciba Vision Corporation Contact Lens Achievement Award, May 1989.
- Bausch and Lomb Practice Initiation Award, May 1989.
- Bausch and Lomb Educational Travel Grant, August 1988.

Optometric Licensure and Certification

- State of Michigan Optometric License with diagnostic, therapeutic, and controlled substances certification.
- State of Wisconsin Optometric License with diagnostic and therapeutic certification.

Professional Affiliations

- Association of Schools and Colleges of Optometry Ophthalmic Optics SIG member, July 2010 to present.
- Optometric Glaucoma Society, September 2009 to present.
- American Optometric Association, October 1985 (student member) to present (full member).
- Michigan Optometric Association, October 1985 (student member) to present (full member).

Professional Appointments

- July 2008 to present: Assistant Professor, Michigan College of Optometry, Ferris State University, Big Rapids, MI.
 - August 2010 to present: OPTM 628, Ophthalmic Optics, course coordinator. Team taught lecture and laboratory.
 - January 2010 to present: OPTM 739, Clinical Neuro-Optometry.
 - January 2010 to May 2010: OPTM 718, Practice Management 2.
 - May 2009 to present: OPTM 730 Physical Examination and Diagnosis. Team taught lecture and laboratory.
 - January 2009 to present: OPTM 636 Diagnosis and Treatment of Anterior Segment laboratory instructor.
 - August 2008 to December 2009: Record Review Audit with 3rd year students.
 - August 2008 to present: Director of the Interprofessional Wellness Clinic.
 - August 2008 to present: Preceptor for second, third, and fourth year clinics in primary care, pediatrics and vision therapy, low vision, and contact lenses.
 - August 2008 to July 2010: Director of athletic and dormitory vision screenings for Ferris State University.
- January 1977 to June 1985: High school teacher, L'Anse Area Schools, L'Anse, MI.

Professional Experience

- July 2008 to present: Michigan College of Optometry, Assistant Professor, Ferris State University, Big Rapids, MI.
- January 2001 to June 2008: Bayview Vision Clinic, Baraga, MI.
 - Private practice provided primary care optometric services to the residents of rural Baraga County, Michigan.
 - Rural setting resulted in much experience with therapeutic pharmacological, glaucoma, and diabetic management.
 - Practice management and coding skills.
- January 2001 to June 2008: Dean L. Luplow, O.D., P.C..
 - Provided optometric services for the Michigan Department of Corrections at Baraga Maximum Correctional Facility in Baraga, MI and Marquette Branch Prison in Marquette, MI.
- September 1992 to December 2000: ShopKo Optical, Houghton, MI.
 - Primary care optometry with a strong emphasis on contact lens fitting.
- November 1989 to August 1992: 410th Strategic Hospital, K.I. Sawyer Air Force Base, Gwinn, MI.
 - Department of Defense Internal Partnership with the Air Force as a civilian optometrist.
 - Practiced using therapeutic pharmacological agents before Michigan passed therapeutic legislation for optometrists.
 - Ordered any necessary lab tests to be done in the hospital as well as imaging tests such CAT scans for diagnosis and treatment purposes.

Lectures/Presentations

- September 20, 2010: 2 hour lecture for 1st year Pharmacy students, “The Interdisciplinary Health Team: Conflict Resolution”.
- April 30, 2010: Speaker MCO Capstone Seminar for 4th year students, “Follow Your Dream”.
- March 16, 2010: 2 hour lecture for 3rd year Pharmacy students, “Geriatric Eye-Related Conditions for Pharmacy”.
- February 27, 2010: 2 hour continuing education for Pharmacists, “Glaucoma and Macular Degeneration: Pathophysiology and Treatment”, Michigan Pharmacists Association, Detroit, MI.
- November 19, 2009: Co-director, Head-to-Toe Interdisciplinary Diabetes Conference for optometry, pharmacy, nursing, and dental hygiene students and faculty, Ferris State University, Big Rapids, MI.
- October 1, 2009: Guest speaker at the Mecosta County Medical Services Diabetic Support Group, “Diabetes Mellitus and the Eyes”.
- September 21, 2009: 2 hour lecture for First Year Pharmacy Students, “Diabetes and Interprofessional Health Care”.

- July 8, 2009: Provided an in-service program on proper techniques of vision screening for adults and children to the nursing staff at Mecosta County Medical Services.
- April 22, 2009: 2 hour lecture for third year Pharmacy students, "Glaucoma and Macular Degeneration".
- April 29, 2009: Guest lecture, "Personal Perspective on Optometric Practice", for Roger Kamen, O.D., M.S. in the Third Year Practice Management 2 course at the Michigan College of Optometry, Big Rapids, MI.
- October 14, 2008: Guest lecture, "Modes of Optometric Practice", for Roger Kamen, O.D., M.S. in the First Year Practice Management course at the Michigan College of Optometry, Big Rapids, MI.

Scholarship

- September 28, 2010: Submitted an abstract, "Michigan College of Optometry Interprofessional Wellness Clinic: Focus on Diabetes" to the West Michigan Interprofessional Education and Practice Conference, Grand Valley State University.
- August 24, 2010: Educational modules, "Introductory Glaucoma" and "Introductory Macular Degeneration", submitted to the International Centre for Eyecare Education, University of Kwazulu Natal, South Africa.
- February 27, 2010: Presented 2 hour continuing education for pharmacists, 'Glaucoma and Macular Degeneration: Pathophysiology and Treatment', Michigan Pharmacists Association, Detroit, MI.
- October 2009 to present: Contributor to the Material Development Initiative of the International Centre for Eyecare Education (ICEE) to develop training materials for optometric education in underdeveloped countries.
- September 3, 2009: Began data collection as with Avesh Raghunandan, O.D., Ph.D. for a study to establish visual requirement recommendations for aerial stereo photogrammetry.
- May 12, 2009: Low Vision Certification obtained from the Michigan Optometric Association.
- February 2009: Developed three Clinical Educational Modules for the Michigan College of Optometry Second Year Primary Care Clinic, Ferris State University, Big Rapids, MI.
 - Patient Communication Skills
 - Visual Acuity Determination
 - Add Determination Based on Patient Needs
- October 1985 to January 1989: Worked with Gerald E. Lowther, O.D., Ph.D., Ferris State University College of Optometry, Big Rapids, MI.
 - Assisted in contact lens research and prepared research results for publication and lecture.
 - Modified standard optometric equipment and instruments for specific research purposes.
 - Aided in maintaining and writing programs for the College of Optometry computer network system.
- June 1987 to July 1988: Assisted in the production of The Contact Lens Videodisk compendium produced by the Lasa Research Group, Big Rapids, MI.
- July 1988: Demonstrated The Contact Lens Videodisk standardized test of rigid gas permeable contact lens fitting and aftercare to the members of the Illinois State Board of Examiners in

Optometry and administered the test to Illinois State Board candidates on a trial basis.

- May 1989: Co-authored research project, "Effect of Lid Position, Corneal Diameter, Corneal Shape, and Rigid Lens Overall Diameter on Lens Movement and Positioning" with Renee Martin, O.D.
- November 1987: Critiqued and proofread the draft copy of the textbook Geometric, Physical, and Visual Optics by Michael P. Keating, Ph.D.

Professional Development

- September 23-24, 2010: Optometric Glaucoma Society Educators Meeting, Fort Worth, TX.
- July 22-34, 2010: Association of Schools and Colleges of Optometry Ophthalmic Optics Educators SIG meeting, St. Petersburg, FL.
- July 30-August 1, 2010: Michigan Optometric Association Annual Meeting and Educational Seminar, Boyne Falls, MI.
- June 16-20, 2010: Optometry's Meeting, Annual Meeting of the American Optometric Association, Orlando, FL.
- June 3, 2010: Summer Continuing Education 2010, Michigan College of Optometry, Big Rapids, MI.
- January 20-21, 2010: Michigan Optometric Association Winter Educational Seminar, Lansing, MI.
- January 15, 2010: West Michigan Interprofessional Education and Practice Conference, Grand Valley State University, Grand Rapids, MI.
- September 17-19, 2009: Optometric Glaucoma Society Educators Program, Fort Worth, TX.
- July 19-22, 2009: Summer Institute for Faculty Development, Association of Schools and Colleges of Optometry, St. Louis, MO.
- July 16-18, 2009: Michigan Optometric Association Annual Meeting and Educational Seminar, Boyne Falls, MI.
- June 24-28, 2009: Optometry's Meeting, Annual Meeting of the American Optometric Association, Washington, DC.
- June 3-4, 2009: Summer Continuing Education 2009, Michigan College of Optometry, Big Rapids, MI.
- January 8-11, 2009: Alcon Optometric Educators Meeting, Fort Worth, TX.
- November 1989 to January 2009: Numerous Continuing Education Conferences.

Professional Service

- November 2008 to present: Continuing Education Committee of the Michigan Optometric Association.
- October 2008 to present: Practice Management Committee of the Michigan Optometric Association.

Michigan College of Optometry (MCO) Service

- September 2010 to present: Chairperson, MCO Curriculum Committee.

- September 2010 to present: Member, MCO Admissions Committee.
- September 2008 to September 2010: MCO Student Recruitment Committee.
- September 2008 to September 2010: MCO Web Page Committee.
- September 2008 to September 2010: MCO Ophthalmic Optics Committee.
- September 2008 to September 2010: MCO Awards Committee.

University Service

- May 2009 to present: Member of the Academic Senate of Ferris State University representing the College of Optometry.
- October 2008 to present: Arts and Lectures Committee, Ferris State University.

Public School Service

- Served on numerous curricular and organizational school district committees.
- Served on many teachers' association committees.
- President of the L'Anse Education Association 1981-1982.
- Served on the teacher contract negotiating team for three contracts, one of which as head negotiator.

Community Service

- February 2008, Eyeglass mission trip to Honduras, conducting eye examinations and teaching local nurses to use a Focometer to determine eyeglass prescriptions, leaving the Focometer with them.
- June 2005, Eyeglass mission trip to Nicaragua, conducting eye examinations and dispensing over 3600 pair of glasses.
- June 2004 to August 2007: Habitat for Humanity volunteer, Houghton, MI

CURRICULUM VITAE

James R. Miller, O.D., F.A.A.O. (Updated June 2011)

GENERAL INFORMATION

Home Address: 18180 Arthur Road
Big Rapids, MI 49307
(231) 796-7492

Office Address: Ferris State University
Michigan College of Optometry
1310 Cramer Circle, Pennock 429
Big Rapids, MI 49307
(231) 591-2191

Date of Birth: May 13, 1958 Heidelberg, Germany

EDUCATION

High School: Fitzgerald High School, Warren, Michigan
June 1976

Doctor of Optometry: Ferris State University, Big Rapids, Michigan
May 1985

Bachelor of Science: Central Michigan University, Mount Pleasant, Michigan
Chemistry (Major), Mathematics (Minor)
May 1986

PROFESSIONAL EXPERIENCE

August, 1986 to Optometric Associates, Big Rapids, Michigan
December, 1987 Primary Care Associate

August, 1986 to Ferris State University, Big Rapids, Michigan
December, 1987 Adjunct Clinical Associate, College of Optometry

December, 1987 to Ferris State University, Big Rapids, Michigan
August, 1988 Part-time faculty, College of Optometry

August, 1988 to Ferris State University, Big Rapids, Michigan
August, 1996 Assistant Professor, College of Optometry
Clinic Chief of Sports Vision Services

August, 1996 to *Ferris State University, Big Rapids, Michigan*
2004 Associate Professor, Michigan College of Optometry

August, 2004 to Ferris State University, Big Rapids, Michigan
Present Professor, Michigan College of Optometry
Clinic Chief of Primary Care Services

PROFESSIONAL LICENSE

National Boards Part I, April 1983

National Boards Part II, August 1983

National Boards Part III, August 1984

Michigan, License #4901003067, August 1986 to Present

Diagnostic Pharmaceutical Agents Certification, August 1986 to Present

IAB Treatment & Management of Ocular Disease Certification, August 1994

Therapeutic Pharmaceutical Agents Certification, September 1995 to Present

American Heart Association Basic Life Support & CPR Certification Renewal, May 2010

PROFESSIONAL ORGANIZATIONS – MEMBERSHIP AND/OR PARTICIPATION

American Academy of Optometry

American Optometric Association

American Optometric Student Association

Fellowship of Christian Optometrists

Michigan Blind Athletic Association

Michigan Optometric Association

United States Association for Blind Athletes

Volunteer Optometric Services for Humanity of Michigan

AWARDS AND DISTINCTIONS

Valedictorian, Fitzgerald High School, 1976

Most Outstanding Senior Clinician, F.S.U. College of Optometry, 1985

Cum Laude, Central Michigan University, 1986

Olympic Job Opportunity Grant Recipient 1991,1992

Outstanding Student Affairs Partner Honoree, 2001

Fellowship in the American Academy of Optometry, 2004

Golden Key International Honour Society Honoree, 2004

Student-Athlete Advisory Committee Faculty Appreciation Honoree, 2004, 2008

Inductee into the Ferris State University Bulldog Athletics Hall of Fame 2005

Inductee into the Michigan Chapter of the National Wrestling Hall of Fame 2009

INSTRUCTIONAL & PATIENT CARE RESPONSIBILITIES

Optometry 581, 682, 683, 784, 785, 786: (Past and Present) Clinical instruction and supervision in the primary care and sports vision services with second, third and fourth year students.

Optometry 644: (1987 to Present) Laboratory instruction in clinical examination techniques and related theory regarding the detection, diagnosis, and management of ocular disease.

Optometry 543: (1988 to Present) Laboratory instruction in clinical examination techniques and related theory regarding objective and subjective refractive error determination, oculomotor, and accommodative function testing.

Residence Hall and Sports Vision Screenings: (1988 to 2005 - Past) Coordination and supervision of vision screenings for all FSU campus residence halls and varsity athletes.

Optometry 538: (1989 to 1993 - Past) Coordination of lectures, presentations and practical applications in a variety of topics dedicated to health urgencies and emergencies relevant to eye care professionals.

Optometry 550: (1996 to 2005 - Past) Laboratory instruction in comprehensive and advanced clinical examination techniques and related theory regarding the detection, diagnosis, and management of ocular disease.

Optometry 543: (1997 to Present) Course coordination and lecture in clinical examination techniques and related theory regarding objective and subjective refractive error determination and accommodative system assessment.

Optometry 744: (2003 to Present) Coordination of lectures, presentations, and practical application discussions in a variety of topics dedicated to optometric gerontology.

FSUH 290: (2005 - Past) Coordination of lectures, presentations, and practical application discussions for introduction of pre-optometry students to MCO and Optometry as a profession.

Optometry 514: (2005 to Present) Coordination of course materials, lectures and practical application discussions regarding optometric ethics and the doctor-patient relationship.

INSTRUCTIONAL & PATIENT CARE RESPONSIBILITIES - Continued

Optometry 657: (2007 to Present) Coordination of course materials, case studies and practical application discussions regarding clinical problem solving related to refractive care.

COMMITTEES - LEADERSHIP

American Optometric Association – Faculty Relations Committee (Past)

American Optometric Association – Student Awareness Project Team Committee (Past)

Association of Schools and Colleges of Optometry – Ethics Educators Special Interest Group (Present)

Association of Schools and Colleges of Optometry – Clinical Methods and Procedures Special Interest Group (Present)

Bausch & Lomb InVision Institute Advisory Board (Past)

Campus Wide – Arts and Lectures Committee (Past)

Campus Wide - Athletic Advisory Committee (Past)

Campus Wide – Faculty Awards Committee (Past)

Campus Wide – Honor’s Council (Past)

Campus Wide – Liaison Committee For Students With Disabilities (Past)

Campus Wide - Student Activities Budget Advisory Committee (Past)

Campus Wide - Student Life Committee (Past)

Michigan Optometric Association - Practice Standards & Professional Ethics Committee - Chair (Present)

Optometry - Admissions Committee - Chair (Past)

Optometry - Clinic Advisory Committee (Present) - Co-Chair (Past)

Optometry – Clinic Chief of Sports Vision Services (Past)

Optometry – Clinic Chief of Primary Care Services (Present)

Optometry - Clinical Proficiency Committee - Chair (Past)

Optometry – Council on Optometric Education Self-Study Oversight Committee (Past)

Optometry – Credentialing and Privileging Committee (Present)

Optometry - Faculty Recruitment Committee (Past)

Optometry – Faculty Support and Development Committee (Past)

Optometry – Program Review Committee (Past)

Optometry – Promotion/Merit Committee (Present)

Optometry – Sabbatical Review Committee (Present)

Optometry – Student Affairs Committee (Past)

Optometry - Student Recruitment Committee (Present) – Chair (Past)

Optometry – Web Page Committee - (Past)

United States Association for Blind Athletes Vision Standards Committee (Past)

USA Wrestling Sports Science Committee (Past)

FACULTY ADVISOR

Optometry - American Optometric Student Association Advisor (Past)

Optometry - First Year Class Advisor (Past)

Optometry - Pre-Optometry Advisor (Present)

Optometry - Student Government Advisor (Past)

Optometry - Fellowship of Christian Optometrists (Present)

Campus Wide - Bulldog Wrestling Club (Past)

Pre-Optometry Club (adjunct) - Central Michigan University (Past)
Pre-Optometry Club (adjunct) - Michigan State University (Past)
Pre-Optometry Club (adjunct) - Oakland University (Past)
Pre-Optometry Club (adjunct) - University of Michigan (Past)
Pre-Optometry Club (adjunct) - University of Wisconsin (Past)
Pre-Optometry Club (adjunct) - University of Wisconsin - LaCrosse (Past)
Pre-Optometry Club (adjunct) - Western Michigan University (Past)

PUBLICATIONS AND PRESENTATIONS

"How to Start a Pre-Optometry Club on Your Campus", Manual and MCO Web Page.
"Inclusion of Vision Screenings with Athlete Physicals", hospital newsletter.
"Inclusion of Vision Screenings with Athlete Physicals" in The Pioneer.
"Journal Abstract Review" 1995 in The Michigan Optometrist.
"Collegiate Sports Vision Update" in the May 1996 issue of The Michigan Optometrist.
"MCO Students as Summer Employees" in the Feb. 1997 issue of The Michigan Optometrist.
"Current Concepts in Eye Care", Residence Hall Presentations at FSU.
"Examination Streamlining", Optometry Student Presentations at FSU.
"Referral Letter Writing", Optometry Student Presentations at FSU.
"Anterior Segment Biomicroscopy and Tonometry" Continuing Education, Aug. 1995 at FSU.
"Physical Examination Procedures" Continuing Education, Aug. 1995 at FSU.
"Anterior Segment Biomicroscopy and Tonometry" Continuing Education, May 1996 at FSU.
"Physical Examination Procedures" Continuing Education, May 1996 at FSU.

“Temperaments” Continuing Education, Feb. 1998 at FSU.

“Temperaments” Collegiate Skills Students, Apr. 1998 at FSU.

“Temperaments” Staff Training, May 1998 at Optometric Associates of Big Rapids.

“Temperaments” MCO Clinic Staff Training, Jul. 1998 at FSU.

“Temperaments” Governor’s College Student Leadership Forum, Jul. 1998 at FSU.

“Temperaments” University College Faculty & Administrators., Jul. 1998 at FSU.

“Introduction to Corneal Topography” Guest Lecture-OPTM550, Nov. 1998-2005 at FSU.

“Conflict” Continuing Education, Nov. 1998 at FSU.

“Temperaments” Staff Training, Dec. 1998 at office of Kevin Young, O.D., Norman, OK.

“Anterior Segment Biomicroscopy and Tonometry” Continuing Education, Jan. 1999 at FSU.

“Physical Examination Procedures” Continuing Education, Jan. 1999 at FSU.

“Teaching Styles” Continuing Education, Apr. 1999 at FSU.

“Anterior Segment Biomicroscopy and Tonometry” Continuing Education, May 1999 at FSU.

“Physical Examination Procedures” Continuing Education, May 1999 at FSU.

“Temperaments” Governor’s College Student Leadership Forum, Jul. 1999 at FSU.

“Teaching Styles” Structured Learning Assistance Facilitator Training, Aug. 1999 at FSU.

“Temperaments” Women’s Basketball Team & Coaching Staff, Aug. 1999 at FSU.

“Team Building Social Skills” Women’s Basketball Team & Coaching Staff, Oct. 1999 at FSU.

“Building Professional Relationships” Staff Training, Jan. 2000 at Lakeshore Eye Center, Ludington, MI.

“Temperaments” Governor’s College Student Leadership Forum, Jul. 2000 at FSU.

“Temperaments” Women’s Volleyball Team & Coaching Staff, Aug. 2000 at FSU.

“Advice for Success in the Classroom” Orientation Panel Discussion, Aug 2000 at FSU.

“Temperaments” Men’s & Women’s Golf Teams & Coaching Staff, Sep. 2000 at FSU.

“Leadership” Career Success Conference, Sep. 2000 at FSU.

“Leadership” Women’s Basketball Team & Coaching Staff, Sep. 2000 at FSU.

“Temperaments” Automotive Technology Faculty & Students, Oct. 2000 at FSU.

“Professional Relationships: Temperaments” C.E., FCO International Conf., Nov. 2000, Nashville, IN.

“Temperaments” FSUS Guest Speaker, Nov. 2000 at FSU.

“Temperaments” Ferris Leadership Executive Training, Jan. 2001 at FSU.

“Leadership” Career Success Conference, Feb. 2001 at FSU.

“Leadership” Pizza with a Prof, Honors Program Students, Apr. 2001 at FSU.

“Temperaments” FSU Athletic Department Retreat, May 2001 at FSU.

“Leadership” Governor’s College Student Leadership Forum, Jul. 2001 at FSU.

“Temperaments” Women’s Volleyball Team & Coaching Staff, Aug. 2001 at FSU.

“Conflict” Women’s Volleyball Team & Coaching Staff, Aug. 2001 at FSU.

“Conflict” Women’s Basketball Team & Coaching Staff, Oct. 2001 at FSU.

“Team Building” Drs. Vallela & Prange & Staff, Oct. 2001, Battle Creek, MI.

“Temperaments” Softball Team & Coaching Staff, Nov. 2001 at FSU.

“Conflict” Haiti & Guyana Optometry Mission Teams, Jan. 2002, Hersey, MI.

“Introduction to Direct Ophthalmoscopy” Hospital of Light Medical Interns, Mar. 2002 Bonne Fin, Haiti.

“Leadership” Pizza with a Prof, Honors Program Students, Apr. 2002 at FSU.

PUBLICATIONS AND PRESENTATIONS – Continued

“Leadership” Governor’s College Student Leadership Forum, Jul. 2002 at FSU.

“Professional Relationships: Conflict” C.E., FCO International Conf., Sep. 2002, Pensacola, FL.

“Haiti Eyecare Mission”, FCO International Conference, Sep. 2002, Pensacola, FL.

“Haiti Eyecare Mission”, VOSH-MI Fall Conference, Sep. 2002, at FSU.

“Sequential Criterion-Based On-Line Self-Assessment” Poster Co-Authored with Dr. J.Randall Vance, Lilly North Conference on College & University Teaching, Sep. 2002, at FSU.

“New Technologies in Intraocular Pressure Measurement” Guest Lecture-OPTM550, Sep. 2002, at FSU.

“Leadership”, TLC Eyecare and Laser Centers Executive Team, Oct. 2002, Jackson, MI.

“Conflict” Haiti, Guyana & Nigeria Optometry Mission Teams, Jan. 2003, Big Rapids, MI.

“Leadership/ Each One; Reach One”, C.E., SW Mich. Optometric Society, Feb. 2003, Kalamazoo, MI.

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational, Feb. 2003, at FSU.

“Conflict” MOA/TLC Optometric & Staff Educational, Mar. 2003, Lansing, MI.

“Conflict” Riemer Eye Care, Staff Educational, May 2003, Ludington, MI.

“Assessment and Development of Critical Fundus Observation Skills” Poster Co-Authored with Drs. J.Randall Vance and Scott D. McDowell, AOA Congress, Jun. 2003, San Diego, CA.

“Leadership” Governor’s College Student Leadership Forum, Jul. 2003 at FSU.

“How to Prepare for the Optometry Doctoral Program”, Honors Optometry Night, Oct. 2003, at FSU.

“Conflict” Haiti Optometry Mission Team, Jan. 2004, Lake City, MI.

“Professional Relationships: Conflict” C.E., TLC Eye Care, Feb. 2004, Ann Arbor, MI.

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational, Feb. 2004, at FSU.

“Healthy Eyes Healthy People Update”, MCO Third Year Optometry Students, Mar. 2004, at FSU.

“Healthy Eyes Healthy People Update”, MCO Faculty, Staff & Administrators, Mar. 2004, at FSU.

“Leadership” Omicron Delta Kappa Student Presentation, Apr. 2004 at FSU.

“Temperaments” Women’s Volleyball Team & Coaching Staff, Aug. 2004 at FSU.

“How to Prepare for the Optometry Doctoral Program”, Honors Optometry Night, Sep. 2004, at FSU.

“Optometry as a Profession”, Alliance for Career Success Externship Program, Sep. 2004, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Dawg Days Open House, Oct. 2004, at FSU.

“Leadership” Keynote speaker, Golden Key International Honour Society Annual Induction Ceremony, Nov. 2004, at FSU.

“Professional Relationships: Conflict” C.E., TLC Eye Care, Nov. 2004, Kalamazoo, MI.

“Conflict” Guyana Optometry Mission Team, Jan. 2005, Big Rapids, MI.

“Professional Relationships: Conflict” C.E., Rx Optical, May 2005, Kalamazoo, MI.

“Preparing for Admission to MCO” FSU Pre-Optometry Club, Sep. 2005, at FSU.

“Optometry as a Profession”, FSU Career Exploration Course 102, Oct. 2005, at FSU.

“Review Questions for the NBEO Examination – Part Two” contributing author, Elsevier, 2006.

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational, Feb. 2006, at FSU.

“Preparing for Admission to MCO” FSU Pre-Optometry Club, Apr. 2006, at FSU.

“Pre-Optometry Student Advising at MCO” FSU Honors Program administrators, May 2006, at FSU.

“A Case Study of Adult Domestic Abuse” Poster, AOA Congress, Jun. 2006, Las Vegas, NV.

“Coaching With Style” FSU Varsity Coaches, Oct. 2006 at FSU.

“Preparing for Admission to MCO” FSU Pre-Optometry Club, Oct. 2006, at FSU.

“MCO/FSU Open House” CMU, MSU, OSU, SVSU Pre-Optometry Club members, Nov. 2006, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Dawg Days Open House, Nov. 2006, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational, Feb. 2007, at FSU.

“Emotional Pain Management”, MCO Summer C.E., Jun. 2007, Big Rapids, MI.

“Optometry Update”, FSU Admissions Officers, Jul. 2007, at FSU.

“Optometric Ethics Update #1 – Our New Code” MCO Faculty, Staff & Administrators, Oct. 2007, at FSU.

“Preparing for Admission to MCO” FSU Pre-Optometry Club, Oct. 2007, at FSU.

“Optometric Ethics Update #2 – Standards” MCO Faculty, Staff & Administrators, Oct. 2007, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Dawg Days Open House, Nov. 2007, at FSU.

“Professional Relationships: Conflict” MCO Capstone Seminar, Apr. 2008, at FSU.

“Emotional Pain Management - Coping with Conflict”, MCO Summer C.E., Jun. 2008, Big Rapids, MI.

“Admissions Interview Workshop”, Co-presenter ASCO Student Academic Officers SIG, Jun. 2008, Chicago, IL.

“Optometry Update”, FSU Admissions Officers, Jul. 2008, at FSU.

“Conflict” Philippines Optometry Mission Team, Aug. 2008, Bitely, MI.

PUBLICATIONS AND PRESENTATIONS – Continued

“Professional Relationships: Conflict” ASCO Clinic Directors & Administrators SIG Annual Workshop and Education Forum, Oct. 2008, Grand Rapids, MI

“Hypertension Screenings: A Survey of Michigan Optometrists” Poster Co-Authored with Drs. Paula Richards & Leslie Sobek, AAO Convention, Oct. 2008, Anaheim, CA.

“How to Prepare for the Optometry Doctoral Program”, Dawg Days Open House, Nov. 2008, at FSU.

“MCO/FSU Open House” GVSU Pre-Optometry Club members, Nov. 2008, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational, Feb. 2009, at FSU.

“Professional Relationships: Conflict” 56th Annual Pharmacy Seminar & C.E., Apr. 2009, Big Rapids, MI

“Optometric Ethics Update...Code, Standards & Oath”, MCO Capstone Seminar, Apr. 2009, at FSU.

“Optometric Ethics Update...Metaethically Confused”, MCO Faculty Development CE, May 2009, at FSU.

“Optometry Update”, FSU Admissions Officers, Aug. 2009, at FSU.

“Temperaments” Women’s Volleyball Team & Coaching Staff, Aug. 2009 at FSU.

“Building Relationships: Conflict” FSU Christian Pharmacy Fellowship, Sep. 2009, Big Rapids, MI

“Preparing for Admission to MCO”, Biology Department Presentation, Sep. 2009, at FSU.

“Handling “Difficult” Patient Encounters”, 5th Annual Fall Pharmacy Seminar & C.E., Oct. 2009, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Dawg Days Open House, Oct. 2009, at FSU.

“How to Prepare for the Optometry Doctoral Program”, Honors Pre-Optometry Students, Oct. 2009, at FSU.

“MCO Student Recruitment Update”, Pre-Optometry Club, Oct. 2009, at FSU.

“Temperaments” Women’s Basketball Team & Coaching Staff, Nov. 2009 at FSU.

“The Modified AOA Code of Ethics” Paper Presentation, AAO Convention, Nov. 2009, Orlando, FL.

“The Revised MOA Code of Ethics” in the Nov.-Dec. 2009 issue of The Michigan Optometrist Vol.89 No.6; co-authored with James Paramore, OD

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational, Feb. 2010, at FSU.

“Leading With Style” Women’s Volleyball Team & Coaching Staff, Aug. 2010 at FSU.

“A Case Study in Adult Domestic Abuse” Poster presentation for Domestic Violence Awareness Month, Oct. 2010 at FSU.

“Preparing for Admission to MCO” FSU Pre-Optometry Club, Oct. 2010, at FSU.

“Emotional Pain Management – Coping with Conflict” MOA Fall CE, Oct. 2010, Lansing, MI.

“Spiritual Case Histories”, MCO@FSU Fellowship of Christian Optometrists, Oct. 2010, Big Rapids, MI

“How to Prepare for the Optometry Doctoral Program”, Dawg Days Open House, Oct. 2010, at FSU.

“Spiritual Case Histories”, MCO@FSU Fellowship of Christian Optometrists, Nov. 2010, Big Rapids, MI

“Hypertension Screenings: A Survey of the Michigan College of Optometry” Poster Co-Authored with Drs. Brian Schmidt & Kelly Abbott, AAO Convention, Nov. 2010, San Francisco, CA.

“How to Prepare for the Optometry Doctoral Program”, Honors Program Invitational & MCO Tour, Feb. 2011, at FSU.

“Emotional Pain Management – Temper Our Temperaments”, MCO Summer C.E., Jun. 2011, Big Rapids, MI.

VOLUNTEER ACTIVITIES

Boy Scouts Vision Screening, Big Rapids, MI

Camps, Clinics and Seminars for Visually Impaired Athletes (numerous), nationwide

Spring Health Fair Vision Screenings at FSU

Criminal Justice Student Color Vision Screenings at FSU

FSU Athletic Department Team Optometrist (1988-2005)

Trinity Fellowship Church Adult Edification Presentations (numerous), Big Rapids, MI

Mars Hill Church Adult Edification Presentations (numerous), Grand Rapids, MI

Calvary Church Adult Edification Presentations (numerous), Grand Rapids, MI

“Temperaments”, Kiwanis Club, Apr. 1998, Big Rapids, MI

“Communication” Campus Crusade for Christ, Sep. 1998 at FSU.

“Temperaments”, Bella Vista Church, Dec. 1998, Rockford, MI

Guyana Eyecare Mission, Mar. 1999, Crabwood Creek, Guyana, SA

“Temperaments”, Young Life Church, Apr. 1999, Mt. Pleasant, MI

“Guyana Eyecare Mission”, Ionia Temporary Correctional Facility, May 1999, Ionia, MI

“Guyana Eyecare Mission”, Short Term Mission Group, Jun. 1999, Grand Rapids, MI

“Temperaments”, Center Lake Bible Camp Staff Training, Jun. 1999, Tustin, MI

VOLUNTEER ACTIVITIES – Continued

“Building Relationships”, Mothers of Pre-Schoolers, Jan. 2000, Big Rapids, MI

Guyana Eyecare Mission, Mar. 2000, Crabwood Creek, Guyana, SA

“Building Relationships: Boundaries” Fellowship of Christian Students, Mar. 2000 at FSU.

“Building Relationships: Boundaries” Campus Crusade for Christ, Mar. 2000 at FSU.

“Guyana Eyecare Mission”, Trinity Fellowship Church, Apr. 2000, Big Rapids, MI

“Leadership”, Mothers of Pre-Schoolers, Sep. 2000, Big Rapids, MI

“Temperaments”, Physical Therapy Plus Staff, Oct. 2000, Big Rapids, MI

“Team Building”, Appalachian Out Reach Staff & Board, Oct. 2000, Grand Rapids, MI

“Leadership”, Central Michigan University Fellowship of Christian Athletes, Nov. 2000, Mt. Pleasant MI

“Conflict”, Physical Therapy Plus Staff, Feb. 2001, Big Rapids, MI

“Setting Priorities”, East Holland Middle School Wrestling Banquet, Mar. 2001, Holland, MI

“Building Relationships”, Mothers of Twins, Aug. 2001, Big Rapids, MI

Haiti Eyecare Mission, Mar. 2002, Port-au Prince and Bonne Fin, Haiti

“Haiti Eyecare Mission”, Trinity Fellowship Church, Mar. 2002, Big Rapids, MI

“Haiti Eyecare Mission”, Mars Hill Bible Church, Mar. 2002, Grand Rapids, MI

“Leadership”, Circle K International District Convention, Mar. 2002, Big Rapids, MI

“Haiti Eyecare Mission”, Deerfield Correctional Facility, Aug. 2002, Ionia, MI

Nigeria Eyecare Mission, Aug. 2002, Ughelli, Nigeria

“Building Relationships”, The Good News Group, John Knox Church, Sep. 2002, Grand Rapids, MI

“Haiti Eyecare Mission”, Mars Hill Bible Church, Jan. 2003, Grand Rapids, MI

“Our Mission on Campus”, FSU Faculty Prayer Breakfast, Sep. 2004, Big Rapids, MI

“Conflict” Guyana Dental Mission Team, Feb. 2004, Big Rapids, MI.

“Conflict” Spain & Mexico Mission Teams, Jan. 2005, Big Rapids, MI.

“Coachability” West Michigan Men of Integrity, Apr. 2005, Big Rapids, MI

“Building Relationships”, Mars Hill Bible Church, May 2005, Grand Rapids, MI

“Temperaments”, Mars Hill Bible Church, May 2005, Grand Rapids, MI

“Spiritual Case Histories”, Hope House Free Medical Clinic, Sep. 2005, Big Rapids, MI

“Building Relationships”, Mothers of Pre-Schoolers, Nov. 2006, Big Rapids, MI

“Values, Goals and Habits”, B.R.H.S. Wrestling Camp, June 2007, Big Rapids, MI

“Building Relationships: Temperaments”, Christian Pharmacist Fellowship, Apr. 2009, Big Rapids, MI

“Building Relationships: Temperaments”, TFEFC Single Parents Small Group, Apr. 2009, Big Rapids, MI

“Building Relationships: Temperaments”, TFEFC Care Shepherds Ministry, Jul. 2009, Big Rapids, MI

“Men and Church”, TFEFC Pastors and Elders Training, May 2009, Big Rapids, MI

“The Emerging/Emergent Church”, TFEFC Pastors and Elders Training, May 2010, Big Rapids, MI

“3C’s – Courage, Competency & Character”, PowerHouse Wrestling Camp, June 2010, Big Rapids, MI

CURRICULUM VITAE

Name: Bruce W. Morgan, O.D.

Home Address: 211 Rust Avenue
Big Rapids, MI

Home Phone: (231) 796-4299

Business Address: Michigan College of Optometry
1310 Cramer Circle
Big Rapids, MI 49307

Business Phone: (231) 591-2180

Undergraduate

Education: Westark Community College
8179- 5/81
A.A. degree
University of Kansas
8/81 - 5/82
Missouri Southern College
8/82 - 5/83

Graduate Education:

Northeastern State University,
School of Optometry

8/83-5/87

B.S. Vision Science, O.D.

G PA: 3.90 Rank.- 1

Awards and Honors:

Academic Achievement Award - NSU'85

Outstanding Achievement Award – NSU '85

Beta Sigma Kappa'84, '85, '86, '87

Residency:

Contact Lens Residency'88-'89

University of Missouri - St. Louis

School of Optometry

8001 Natural Bridge Road

St. Louis, MO 63121

Edward S. Bennett, O.D. Director

Board Certification:

National Boards, 8/86

Missouri State Board, 7/87

Oklahoma State Board, 8/87

Kentucky State Board, 1/90 (Inactive)

Laser Certification, 3/ 93

Laser Vision Certification, 9/2001

Professional

Organizations:

American Optometric Association

Cornea and Contact Lens Section

Michigan Optometric Association

West Michigan Optometric Society

National Board of Examiners in

Optometry, Clinical Examiner

American Academy of Optometry,

Fellow

Association of Contact Lens Educators

Community Service Activities:

University United Methodist Church: 1987-2003

Mission Commission

Pastor-Parrish Committee – Chair

The United Church: 2003-present

Governing Board – 2007 to present

[Habitat for Humanity, volunteer](#)

**Missions volunteer: Appalachia Service Project, Mexico, Nicaragua, Jamaica, Guatemala
Boy Scout Pack 3116 Executive
Committee - Chair**

Soccer Coach, T-Ball Coach

Personal Biography:

Hometown - Tulsa, OK

Married to Mary R. Morgan, M.D.

Special interest in mission work with past involvement in the Appalachian area doing home repair work and travel to Nicaragua and Mexico to perform eye exams.

Mary and I also have two children and are very active in family life.

Employment History:

July, 2003 to present. Professor (2006), Tenured (2007) – Chief of Cornea and Contact Lens Service – Director of Residencies - Michigan College of Optometry, Big Rapids, MI.

July, 1991 to May, 2003. Associate Clinical Professor - University of Missouri-St.

Louis School of Optometry; St. Louis, MO.

January, 1995 to January 2003. Practicing Optometrist - Eye Physicians of St. Louis; St.

Louis, MO.

July, 1990 to June 1991. Practicing Optometrist - Doctors Eye Institute; Louisville, KY.

July, 1988 to July, 1990. Contact Lens Resident and Associate Clinical Professor University of Missouri-St. Louis School of Optometry; St. Louis, MO.

January 1990 to July, 1990. Staff Optometrist - Group Health Plan; St. Louis, Mo.

February, 1988 to June 1988. Staff Optometrist - Physicians Multispecialty Group; St. Louis, MO.

September, 1988 to January, 1990. Practicing Optometrist - Optek, Inc.; St. Louis, Mo.

Seminars/Lectures:

1. "Verification and Modification of RGP Contact Lenses" presented at the UMSL Optometric Institute, March, 1989.
2. "Modification of RGP Contact Lenses" presented at the EyeQuest Conference, Chicago ILL., May, 1989.
3. "RGP Fitting, Verification and Modification Seminar" presented at Vision Expo, Anaheim, CA., September, 1989.
4. "RGP Contact Lens Modification" presented at UMSL Optometric Institute, St. Louis MO., March, 1 990.
5. "RGP Contact Lens Modification" presented at Vision Expo, New York, NY., April, 1990.
6. "RGP Contact Lens Modification" presented at EyeQuest Conference, Chicago ILL., May 1990.
7. "Modification of RGP Contact Lenses" presented at the RGP Lens Institute Meeting, St. Louis MO., July, 1990.

8. "Anatomy of the Eye", " Office Disinfection" and "RGP Lens Modification" presented at the Heart of America Contact Lens Congress, Kansas City, MO., February 1991.
9. " Aspheric Contact Lenses", " What's New with RGP's", and RGP Lens Modification" presented at Minnisota Optometric Association Meeting, Minneapolis, MN., March 1991.
10. " RGP Contact Lens Modification" presented at EyeQuest Conference, Chicago, ILL., June 1991.
11. "RGP Contact Lens Modification" presented at RGP Lens Institute Meeting, St. Louis, MO., July 1991.
12. " RGP Contact Lens Modification" presented at Snow Vision Conference, Steamboat Springs, CO., January, 1992.
13. " RGP Lens Update" presented at UMSL Optometric Institute Meeting, St. Louis, MO., March, 1992.
14. " RGP Contact Lens Modification" presented at RGP Lens Institute Meeting, St. Louis, MO., July, 1992.
15. "RGP Grand Rounds" presented at EyeQuest Conference, Chicago, ILL., May 1993.
16. "RGP Advanced Fitting" presented at EyeQuest Conference, Chicago, ILL., May 1993.

17. "RGP Grand Rounds - Toric fitting" presented at Contact '93 Meeting, Anaheim, CA., July 1993.
18. "Growing your practice with RGP'S" presented at Contact '93 Meeting, Anaheim, CA., July 1993.
19. "RGP Modification" presented at Contact '93 Meeting, Anaheim, CA., July 1993.
20. "RGPLI Workshop" presented to Northeastern State University School of Optometry, Tahlequah, OK, Aug. 1998, 1999, 2000, 2001
21. "Safety and Efficacy of the Correctech Orthokeratology Lens" presented at the Global Orthokeratology Symposium, Toronto, Canada, Aug. 2002
22. "Corneal Reshaping Update" presented to the annual GPLI Resident Workshop, St. Louis, MO Aug. 2004
23. "Orthokeratology is OK" presented at Summer MCO CE Conference, Big Rapids, MI June 2005
24. "Classroom Performance System (CPS) – the MCO Experience" presented at the Association of Contact Lens Educators Workshop, Big rapids, MI June 2005
25. "Specialty Contact Lens Update" presented at Summer MCO CE Conference, Big Rapids, MI June 2006
26. "Treatment and Management of Contact Lens Complications" presented at SVS CE Conference, Crystal Mountain, MI June 2007
27. "Orthokeratology – Here to Stay?" presented at Ford Optimeyes CE Conference, Detroit, MI Jan. 2008

28. "Contact Lens Update" presented at MCO CE Conference, Big Rapids, MI June 2008
29. "Orthokeratology, Here to Stay?" presented at MOA Winter Seminar, Lansing, MI Jan. 2009.
30. "Orthokeratology- Where are we an Where are We Going" presented at the American Academy of Optometry, Orlando, FL Oct. 2009
31. "Clinical evaluation of the Biexpert Multifocal Contact Lens" presented at the Global Specialty Lens Symposium, Las Vegas, NV Jan. 2010
32. "Contact Lenses for Presbyopia" presented at the Korean Optometric Association CE Conference, Seoul, Korea December 2009
33. "Conditions Affecting Refraction" presented at the Korean Optometric Association CE Conference, Seoul, Korea December 2009
34. "RGP Contact Lens Troubleshooting" presented at the Korean Optometric Association CE Conference, Seoul, Korea December 2009
35. "Specialty Lens Fitting" presented at the Korean Optometric Association CE Conference, Seoul, Korea December 2009
36. "Toric Lens Designs and Troubleshooting" presented at the Korean Optometric Association CE Conference, Seoul, Korea December 2009
37. "Clinical Evaluation of the Biexpert Multifocal Lens" presented at the Global Specialty Lens Symposium, Las Vegas, NV January 2010

38. "Current Contact Lens Practice" presented at the Consortium of Osteopathic Ophthalmology Residents at Michigan State University, Lansing, MI October 2010

Publications

1. Morgan BW, Bennett ES. How to prevent RGP lens adherence. Contact Lens Update 8(2):18,31-32,1989.
2. Bennett ES, Henry VA, Morgan BW. The Diffrax bifocal contact lens. Contact Lens Forum 15(3):31-38, 1990.
3. Morgan BW, Bennett ES. Modification of RGP lenses. Contact Lens Forum 15(7):33-54,1990.
4. Morgan BW, Bennett ES. Chapter 27: "Modification". In Bennett ES, Weissman BA (editors) Clinical Contact Lens Practice. Lippincott Publ., Philadelphia, 1991.
5. Morgan BW, Henry VA, Bennett ES, et al. The effect of modification procedures on rigid gas permeable contact lenses. Journal of the American Optometric Association 63(3): 201-214,1992.
6. Morgan BW. Successful compliance for RGP wearers. Optometry Today Jan/Feb 1993; pg. 26.

7. "Initial comfort and surface wettability: A comparison between different materials." International Contact Lens Clinic 54(5):103-106,1993.
8. Morgan BW. Chapter 7: "Modification" In Bennett ES, Henry VA (editors) *Clinical Manual of Contact Lenses*. Lippincott Pubi., Philadelphia. 1994
9. Henry VA, Bennett ES, Henderson B, Morgan BW. Training school clinic staff. Optom Ed 1998; 23(3):86-89
10. Bennett, ES, Stuic S, Bass C, Schnider CM, Morgan BW, Henry VA, Henderson B, Roskam S. Effect of patient personality profile and verbal presentation on successful rigid contact lens adaptation, satisfaction, and compliance. Optom Vis Sci 1998; 75(7):500-505.
11. Bennett ES, Smythe J, Henry VA, Morgan BW, et al. The effect of topical anesthetic use on initial patient satisfaction and overall success with rigid gas permeable contact lenses. Optom Vis Sci 1998; 75(11):800-805.
12. Morgan BW, Henry VA, Bennett ES Chapter 8: "Modification and Verification" In Bennett ES, Hom MM (editors) *Manual of Gas Permeable Contact Lenses, Second Edition*. Elsevier Science, St. Louis 2004.
13. Mika R, Morgan BW, Cron M, et al. Safety and efficacy of overnight orthokeratology in myopic children. Optometry – Journal of the American Optometric Association 78(5): 226-231, 2007.

Poster Presentations:

1. "The effect of modification procedures on RGP lens performance." Presented at CLAO Meeting, New Orleans, LA, January, 1989.

2. "Initial comfort and surface wettability: A comparison between different contact lens materials". Presented at American Academy of Optometry, Orlando, FL, December, 1992.
3. "Safety and Efficacy of the Correctech Orthokeratology Contact Lens for Overnight Wear". Presented at American Academy of Optometry, Philadelphia, PA, December, 2001.
4. "A Comparison of Three Overnight Orthokeratology Designs". Presented at the American Academy of Optometry, San Diego, CA, December, 2002
5. "Orthokeratology for Monovision: A Case Report". Presented at the Global Orthokeratology Symposium, Toronto, Canada, July, 2004.
6. "Evaluation of a New Gas Permeable Multifocal Lens Design". Presented at the American Academy of Optometry, Tampa FL, 2004.
7. "Using a Topographer to Measure GP Base Curve" – Presented at the American Academy of Optometry, San Diego CA, 2005
8. "Evaluation of the Viscon MSD Scleral Contact Lens in Keratoconus Patients" – Presented at the Global Keratoconus Symposium, Las Vegas, NV Jan. 2008
9. "Evaluation of the Biexpert Multifocal Lens" – presented at the Global Specialty Lens Symposium, Las Vegas, NV Jan. 2010
10. "Myopia Control with the Euclid Emerald Contact Lens and Overnight Orthokeratology". Presented at the American Optometric Association annual meeting, Washington, D.C., June 2009.

Clinical Investigations and Financial Support from the following

companies: (Co-investigators In parentheses):

1. A comparison of overall performance of RGP lens designs. Supported by Polymer Technology Corporation - 1988 (Dr. Bennett, Dr. Henry, Dr. Davis)
2. Optima EW vs. Optima 38 daily wear comparison study. Supported by Bausch & Lomb - 1988 (Dr. Bennett, Dr. Henry, Dr. Davis)
3. Optima EW vs. CSI-T extended wear investigation. Supported by Bausch & Lomb - 1988 (Dr. Bennett, Dr. Henry)
4. A clinical evaluation of the Advent fluoropolymer contact lens. Supported by Allergan - 1988 (Dr. Bennett, Dr. Henry)
5. Optima EW vs. medium/high water content extended wear hydrogel lenses. Supported by Bausch & Lomb - 1988 (Dr. Henry, Dr. Bennett)
6. A clinical evaluation of the Diffrax bifocal RGP lens. Supported by Sola Ophthalmics - 1988 (Dr. Bennett, Dr. Henry)
7. A clinical investigation of the Fluoroperm 60 for extended wear - 1988 (Dr. Henry, Dr. Bennett)

8. The effect of modification on silicone/acrylate versus fluorosilicone/acrylate contact lenses. Supported by Southwest Contact Lens Society and RGP Lens Institute - 1988 (Dr. Bennett, Dr. Henry)
9. Dk 30 versus Paraperm 02: A daily wear comparison study. Supported by Paragon Optical - 1988 (Dr. Bennett, Dr. Henry)
10. Open label clinical evaluation of the comfort, patient acceptance and safety of solution PO 1413 for RGP lenses. Supported by Alcon Laboratories - 1990 (Dr. Bennett, Dr. Henry)
11. CSI - Toric vs. Torisoft daily wear comparison study. Supported by Sola/Barnes Hind - 1992 (Dr. Henry, Dr. Bennett)
12. Initial comfort and wettability comparison: WJ D3X4 vs. NOVALENS vs. Envision - Supported by Wesley Jessen - 1992 (B. Hatfield, D. Jordan, Dr. Bennett, Dr. Henry)
13. Clinical evaluation of the Accucon RGP contact lens - FDA- 1993 (Dr. Henry, Dr. Bennett)
14. Dry eye and contact lens wear. Supported by CIBA and Allergan- 1995 (Dr. Henderson, Dr. Elliott, Dr. Bennett, Dr. Henry)
15. The effect of patient personality profile and verbal presentation on initial comfort and adaptation to RGP contact lenses. Supported by Polymer Technology - 1995 (Dr. Bennett, Dr. Elliott, Dr. Henry, Dr. Henderson)
16. Anesthetic Study. Supported by Polymer Tech. - 1996 (Dr. Bennett, Dr. Porter, Dr. Henderson, Dr. Henry, Dr. Elliott)

17. Bifocal Study. Supported by polymer Tech.- 1998 (Dr. Bennett, Dr. Johnson, Dr. Henderson, Dr. Henry, Dr. Elliott)
18. Orthokeratology Study. Supported by Menicon - 1999 (Dr. Bennett, Dr. Henry)
22. Clinical Investigator for the Collaborative Longitudinal Evaluation of Keratoconus (CLEK) - 1999 (Dr. Davis, Dr. Bennett)
23. FDA Investigation of Corneal Tech orthokeratology Contact Lens for Overnight Wear. Supported by Corneal Tech - 2001 (Dr. Luc, Dr. Tam, Dr. Bennett, Dr. Henry, Dr. Henderson)
24. FDA Investigation of Paragon CRT orthokeratology contact lens for overnight wear. Supported by Paragon - 2001 (Dr. Henry, Dr. Bennett, Dr. Henderson)
25. Evaluation of a new Gas Permeable Multifocal Lens Design. Supported by Polymer Technology - 2003 (Dr. Pole)
26. Safety and Efficacy of Overnight Orthokeratology in Myopic Children. Supported by Polymer Technology and Euclid, Inc.(\$14,260) - 2003 (Dr. Mika, Dr. Pole, Dr. Lotoczky)
27. Evaluation of the Marquis Multifocal Gas-permeable Contact Lens. Supported by Polymer Technology and Lifestyle GP Co. (\$2,400) - 2003 (Dr. Pole, Dr. Lotoczky)
28. Factors Behind Presbyopic Lens Design Performance Issues. Supported by Art Optical (\$12,800) - 2007 (Dr. Potter, Dr. Lotoczky)
28. Evaluation of the Viscon MSD Scleral contact Lens. Supported by Polymer Technology/Bausch & Lomb (\$6,500) - 2007 (Dr. Lotoczky, Dr. Potter)
29. Evaluation of the Clarity GP Multifocal. Supported by Polymer Technology/Bausch & Lomb (\$5,500) - 2008 (Dr. Lotoczky, Dr. Dinardo)
30. Evaluation of High Index GP Multifocals. Supported by Polymer Technology/Bausch & Lomb (\$1,500) 2008 (Dr. Lotoczky)

31. Evaluation of the Biexpert Multifocal Lens. Supported by the B&L Boston Group and Art Optical (\$9,905) 2010 (Dr. Lotoczky, Dr. Al-delaigan)
32. The Role of Soft Multifocal Contact Lens Use in Children to Slow Myopic Progression. Submitted grant request to Cooper Vision (\$8,185) In progress (Dr. Lotoczky, Dr. Witte)

Book Contributions

1. Morgan BW, Henry VA, Bennett ES Chapter 8: "Modification and Verification" In Bennett ES, Hom MM (editors) Manual of Gas Permeable Contact Lenses, Second Edition. Butterworth-Heinemann/Elsevier, St. Louis 2004.
2. Treatment and Management of Refractive/Oculomotor/Sensory Integrative Conditions Using Contact Lenses – 55 questions contributed to Review Questions for the NBEO Examination Part Two. Butterworth-Heinemann/Elsevier, St. Louis, 2005.

Articles Reviewed

1. "Enhanced post-operative filtering bleb-induced vision difficulties with well fitted GP (oxygen permeable) lenses" for Optometry, Oct. 2003.
2. "The Clinical Performance of a Silicone Hydrogel lens for Daily Wear" for Optometry, Oct. 2004
3. "Severe Epithelial Edema in Clearkone Synergeyes Contact Lens Wear for Keratoconus" for Eye and Contact Lens, Nov. 2010

Educational Booklet Review

1. Sorbrara L, Woods C, et al. Correction of Presbyopia with GP Lenses. Produced by the Centre for Contact Lens Research, Waterloo, Canada. October 2007

Directed Student Research Papers

1. "Assessing the Michigan College of Optometry's Curriculum and Admissions Process". Zawilinski N. 2007

2. "The Effect of Two Different Treatment Methods on the Outcome of Corneal Reshaping". B. Beldyga and N. Wiarda. 2008

3. "Using Computer Based Topography Programs for Initial Fit of RGP Lenses". Lane E and Smith A. 2009

4. "A Survey of Past Residents from the Michigan College of Optometry". Weidemayer S. 2010

James A. Nash, O.D., Ph.D.

Curriculum Vitae 2011

jamesnash@ferris.edu

1124 S. State St.; MCO 246

(231) 591-2194

Big Rapids, MI 49307-2256

Education

Ph.D.	2006	University of Cincinnati College of Medicine, Cincinnati, OH
O.D.	1982	Indiana University School of Optometry, Bloomington, IN
B.A.	1978	DePauw University, Greencastle, IN

Experience

2006-present	Assistant Professor, Michigan College of Optometry, Ferris State University, Big Rapids, Michigan.
2002-2005	Research Assistant, Children's Hospital Medical Center, University of Cincinnati College of Medicine, Cincinnati, OH
1998-2002	Research Assistant, Department of Molecular and Cellular Physiology, University of Cincinnati College of Medicine, Cincinnati, OH
1991-1998	Assistant Professor; Science, Nursing, and Business Departments, Bethel College, Mishawaka, IN
2006-present	Primary care optometrist, Michigan
1982-1998	Primary care optometrist, Indiana

Teaching experience

Anatomy & Physiology Courses

- 2006-2011 Anatomy and Physiology for Optometry I & II (OPTM 537&538)
- 1991-1998 Human Anatomy and Physiology I & II (BIOL 214-215) (pre-med & nursing)
- 1996 Behavioral Anatomy and Physiology (BIOL 305)

Biochemistry & Genetics

- 2006-2011 Biochemistry, Genomics, Proteomics (OPTM 530)

Other Science Courses

- 2007-2008 Basic Science Capstone (OPTM 616)
- 1991-1995 Geology (ERTH 252)
- 2006-2007 Ophthalmic Optics—Radiation transmittance lecture series
- 2006-2007 VisionScience Labs
- 2007-2008 Senior Project: Barth & Potter

Clinical Courses

- 2006-2011 Clinical Problem Solving I (OPTM 657)
- 2006-2011 Optometry Clinic 2 (OPTM 650)
- 2006-2011 Optometry Clinic 3 (OPTM 751, 753)

Business Courses

- 1991-1993 Macroeconomics (ECON 231)
- 1991-1993 Microeconomics (ECON 232)
- 1993 Economic Problems and Issues (ECON 331)

Grants

2009 FSU Faculty & Staff Diversity Mini-Grant
2008 ASCO Diversity Mini-Grant (co-author)
1999-2004 NIH National Research Service Award

Presentations

Nash, James A. "Better documentation and paraphrasing through peer group review." 237th American Chemical Society National Meeting & Exposition. Salt Lake City, UT. 22-26 March 2009.

Nash, James A. "Readable papers as a result of online peer review." Presentation at the 20th Biennial Conference on Chemical Education. Bloomington, IN. 29 July 2008.

Publications

Nash, James A.; Ballard, Tiffany N.; Weaver, Timothy E.; Akinbi, Henry T. "The peptidoglycan degrading property of lysozyme is not required for bactericidal activity in vivo." *Journal of Immunology* 177.1 (2006 Jul 1): 519-526.

Nash, James A., Timothy E. Weaver, and Henry T. Akinbi. "Catalytically inactive lysozyme is bactericidal against *Pseudomonas aeruginosa* in vivo." *American Thoracic Society Abstracts* May 2005.

Kuznetsova, Anna V; Meller, Jaroslaw; Schnell, Phillip O; **Nash, James A**; et al. "von Hippel-Lindau protein binds hyperphosphorylated large subunit of RNA polymerase II through a proline hydroxylation motif and targets it for ubiquitination." *Proceedings of the National Academy of Sciences of the United States of America* 100.5 (2003 Mar 4): 2706-1

Czyzyk-Krzeska, Maria F.; Kuznetsova, Anna V.; Meller, Jaroslaw; Schnell, Phillip O.; Ignacak, Monika L.; **Nash, James A.**; Sanchez, Yolanda; Conaway, Ronald C.; Conaway, Joan W. "VHL binds hyperphosphorylated large subunit of RNA polymerase II through a proline hydroxylation motif and targets it for ubiquitination." *FASEB Journal* 17(4-5)2003. p.Abstract No. 634.25

Paulding, Waltke R; Schnell, Phillip O; Bauer, Amy L; Striet, Justin B; **Nash, James A**; Kuznetsova, Anna V; Czyzyk-Krzeska, Maria F. "Regulation of gene expression for neurotransmitters during adaptation to hypoxia in oxygen-sensitive neuroendocrine cells." *Microscopy research and technique* 59. 3 (2002 Nov 1): 178-87.

Professional Development

- 2010 Equity within the Classroom Conference, Mt. Pleasant
FCTL Inclusive Classrooms Initiative
MCO CPS-SIG group
FCTL Workshop in Using Writing to Enhance Instruction; presenter
- 2009 FCTL Diversity, Equity, and Inclusion Discussion Series; co-facilitator
MCO CPS-SIG group
237th American Chemical Society National Meeting
FCTL Faculty Writing Institute; presenter
- 2008 FCTL Diversity, Equity, and Inclusion Discussion Series; participant
20th Biennial Conference on Chemical Education
FCTL Faculty Writing Institute; participant
- 2007 FerrisConnect Training Session, Early Adopters
FCTL Faculty Classroom Research Group
FCTL Course Portfolio Faculty Learning Community
FCTL Faculty Writing Institute; participant

2006 ASCO Summer Institute for Faculty Development

James A. Nash CV 3

Academic Service

2010-2011 Academic Senate Institutional Strategic Planning Council
2010 Academic Affairs Inclusion Committee
2008-2011 Academic Senate
2008-2010 Academic Senate Diversity Committee
2008-2010 Diversity Committee (MCO)
2008 Dean Search Committee
2006-2010 Student Recruitment Committee; Chair 2008-2010
2007-2011 First Year Orientation Committee
2006-2009 Faculty Development and Research Committee
2006-2007 Long range Planning, Outcomes Assessment, and Program Review Committee
2007 Technology Implementation Task Force
1995-1998 Institutional Assessment and Research Committee
1993-1994 Institutional Research Committee

Professional Affiliations and Service

2010 Human Anatomy & Physiology Society (HAPS)
1998-2004 American Physiological Society (APS)
2009-2010 American Chemical Society

2007-2011	American Optometric Association
2007-2011	Michigan Optometric Association
2007-2010	American Optometric Association Faculty Relations Committee
1990	Recipient of Meritorious Service Award, Indiana Optometric Association
1983-1985	Indiana Optometric Association Liaison to Indiana University School of Optometry
1988-1990	President of East Central Optometric Association
1987-1997	Examiner for Clinical Board Examinations: Indiana & National Board of Examiners in Optometry
1988-1989	Coordinator of School Vision Screening Program for Delaware County Nurses

JOHN J. POLE

CURRICULUM VITAE

HOME ADDRESS

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OFFICE ADDRESS

Ferris State University
Michigan College of Optometry
1124 S. State Street
Big Rapids, MI 49307
(231) 591-2177

BIRTHDATE AND PLACE

April 17, 1951, Sandusky, Ohio
Married, wife Jane, teacher
Three Children

EDUCATION

- Ohio University
Athens, Ohio
June 1969-June 1971
- The Ohio State University
Columbus, Ohio
September 1971-September 1975, June 1977-June 1979
O.D. Degree - 1975
M.S. Degree - 1979 - Certificate of Contact Lens Residency

ADDITIONAL EDUCATION

- Diagnostic Pharmaceutical Agent Course, 60 hours, FSU, 1984
- Therapeutic Pharmaceutical Agent Course, 20 hours, FSU, 1987

LICENSED IN OHIO AND MICHIGAN

CERTIFICATION

- Contact Lens Specialist Residency, OSU, 1979
- Diagnostic Pharmaceutical Certification, Michigan Board, 1984
- Diagnosis and Treatment of Ocular Disease, IAB Test, 1987

TEACHING EXPERIENCE

- Ohio State University (Clinical Instructor)
 - Optometry 433 (Ophthalmic Optics of Contact Lenses)
 - Optometry 652 and 653 (Contact Lens Practice) laboratory instruction and guest lecturing
 - Clinical Instructor (Primary Care Clinic)
 - Contact Lens Clinic Instructor
- Ferris State University (Assistant Professor) (Associate Professor 1984) (Professor 1990)
 - Contact Lens Courses (lecture and laboratory) (optometry students)
 - Contact Lens Course (optometry technicians)
 - Contact Lens Clinic
 - Primary Care Clinic
 - Anterior Segment Ocular Pathology Course
 - Ocular Therapeutics Course
 - Health Center Clinic

OPTOMETRIC PRACTICE EXPERIENCE

- Associated with Ramie B. Dick, O.D., in Sandusky, Ohio, June 1975–June 1976
- Clinic Instructor, Ohio State University, September 1976-June 1977
- Neal J. Bailey, O.D., Ph.D., June 1978-June 1981

PROFESSIONAL ORGANIZATIONS, ACTIVITIES AND HONORS

- Fellow of the American Academy of Optometry
- American Association of Contact Lens Educators, 1978-present
- American and Ohio Optometric Associations, 1975-present
- Michigan Optometric Association, 1983-present
- Phi Kappa Phi, Honorary Graduate Fraternity, 1978-present
- American Optometric Foundation, 1978-present
- Investigator
 - Alden Optical Labs, Inc. A1-47 Contact Lens
 - Continuous Curve C.A.B. Lenses
 - Polycon 10 Lenses (Sola-Syntex)
 - Boston Lens
 - Sil-O Flex
 - Polycon II Bifocal
 - Precision-Cosmet
 - Hydron
 - Paragon
 - B & L
 - Ciba Vision
 - RGP - Extended Wear Studies
 - 1) Paragon
 - 2) Syntex
 - High Dk, Medium Dk, Low Dk Comparison Studies - Sola-Syntex

Soft Lens Extended Wear Studies

- 1) Ciba
- 2) Vistakon

RGP Surface Quality Studies

Solution Studies

- 1) Ciba
- 2) Alcon
- 3) B & L

Bifocal Studies

- 1) Ciba
- 2) B & L
- 3) Allergan

COMMITTEES

- Ohio Optometric Association - Contact Lens Committee
- Ohio Optometric Association - Sports Vision Committee
- Ferris State University - Distinguished Teacher Award Committee
- Ferris State University - Gerholz Institute for Lifelong Learning
- Ferris State College of Optometry - Continuing Education Committee
- Ferris State College of Optometry - Promotions Committee
- Ferris State College of Optometry - Curriculum Committee
- Ferris State University Sabbatical Review Committee
- Ferris State College of Optometry - Admissions Committee
- Ferris State University - Institutional Review Board (Human Subjects Committee) (Chairman)
- Ferris State University - Research Committee
- Michigan College of Optometry - Research Committee

AREAS OF PROFESSIONAL INTEREST

- Contact Lenses
- Ocular Physiology
- Anterior Segment Ocular Disease, Diagnosis and Treatment

SCHOLARLY ACTIVITIES

- Paper Referee: Optometry Monthly, International Contact Lens Clinic, Journal of the American Optometric Association and Journal of the American Academy of Optometry
- CIBA Vision Advisory Panel, 1987-present
- Johnson and Johnson Advisory Panel, 1990-present
- Panel Discussion Participant at Sola-Syntex on "RGP Lenses and Dk Factor" with excerpts published in Contact Spectrum, December 1987
- Expert Opinion Column Consultant, "How to Fit and Use Toric RGP Lenses", Contact Lens Forum, July 1986

BOOK REVIEW

- “Review of Color Atlas of Contact Lenses”, International Contact Lens Clinic, September/October 1983.

CLINICAL IMPLICATIONS FOR PUBLISHED PAPERS

- Clinical Implications for "Corneal Endothelium in Veteran PMMA Contact Lens Wearers", International Contact Lens Clinic, November/December 1981.
- Clinical Implications for "Can a Dermicel-Covered Brass Tool be Effective in Cutting a Peripheral Curve on a Contact Lens", International Contact Lens Clinic, November/December 1982.
- Clinical Implications for "Wettability of Some Gas Permeable Hard Contact Lenses", International Contact Lens Clinic, August 1984.
- Clinical Implications for "Clinical Study of the Compatibility of the Boston Lens II with Two Care Regimens", International Contact Lens Clinic, January 1985.
- Clinical Implications for “Fluorescein in Rigid Lens Fit”, International Contact Lens Clinic, March 1988.
- Clinical Implication for "Comparative Effectiveness of Different Care Systems in Removing Deposits from Hydrogel Contact Lenses", International Contact Lens Clinic.
- Clinical Implications for "Factors Influencing Hydrogel Toric Lens Rotation", International Contact Lens Clinic, July/August 1989.

AWARDS AND HONORS

- PHI KAPPA PHI Graduate School Honor Fraternity, 1979-present
- Outstanding Young Men of America Award, U.S. Jaycees, 1979
- Journal Article of the Year Award, Contact Lens Forum, "Clinical Comparison of High, Moderate, and Low Dk Rigid Gas Permeable Lenses", 1987
- Educator of the Year Award, Michigan Optometric Association, Presented at MOA Convention, 1997

PUBLICATIONS, INVITED PAPERS AND POSTERS

- "Tear Lactate Dehydrogenase in Response to Physiological Stress", Master's Degree Dissertation.
- "Contact Lens Care Solutions", Drug Store News, June 19, 1980.
- Contact Lens Conference Report, "The Ninth National Research Symposium on Contact Lenses", Dallas, Texas, International Contact Lens Clinic, November/December 1982.
- "Double Truncated Front Surface Toric Gas Permeable Lens Used in the Correction of Astigmatism", Optometric Monthly, January 1983.
- "The Effect of Base Curve on Flexure of Polycon Lenses," International Contact Lens Clinic, January/February 1983.
- "The Comparative Flexure of Polycon II, Silcon and Boston II Contact Lenses on Toric Corneas", Optometric Monthly, April 1984.

- "Acute Dellen in Contact Lens Wear", International Contact Lens Clinic, February 1984.

PUBLICATIONS, INVITED PAPERS AND POSTERS (CONTINUED)

- "The Relationship of the Optic Zone Diameter to Contact Lens Flexure", International Contact Lens Clinic, December 1984.
- "Central Corneal Thickness in Dry Eyes", Journal of the American Optometric Association, March 1985.
- "Rigid Gas Permeable Lens Flexure", Paper read at the American Academy of Optometry Meeting, December 1985.
- "Why Custom Design Lenses are Necessary in Rigid Gas Permeable Lens Fitting", Paper read at the American Academy of Optometry Meeting, December 1986.
- "Clinical Evaluation of HGP Contact Lens Surface Qualities and Subjective Lens Comfort", Poster presented at the American Academy of Optometry Meeting, December 1986.
- "Clinical Evaluation of RGP Contact Lens Surface Qualities and Subjective Lens Comfort", International Contact Lens Clinic, May 1987.
- "Clinical Comparison of Low, Medium, and High Oxygen Permeable Rigid Lenses with Daily Wear", Contact Lens Forum, June 1987.
- "Conjunctival Cyst with Chlorhexidine Sensitivity" Photographic Atlas, International Contact Lens Clinic, February 1987.
- "Corneal Abrasion Due to Lens Adhesion Phenomenon with Rigid Gas-Permeable Lens Extended Wear" Photographic Atlas, International Contact Lens Clinic, December 1987.
- "Double Truncated, Front Toric RGP Lens Used in the Correction of ATR Astigmatism", Review of Optometry, September 1988.
- "One Week vs. Two Week Hydrogel Extended Wear Schedules", Journal of American Optometric Association, July 1989.
- "Epithelial Splits: A Soft Lens Complication", Poster presented at the American Academy of Optometry Meeting, December 1988.
- "Limbal Epithelial Hyperplasia" Photo Clinic, Contact Lens Forum.
- "Epithelial Splits - A Soft Lens Complication", International Contact Lens Clinic, September/October 1989.
- "Clinical Comparison of Lens Care Systems for Rigid Gas Permeable Lenses", International Contact Lens Clinic, November/December 1989.
- "Soft Contact Lens, Superior Limbic Keratoconjunctivitis", Case Report, Photographic Clinic, Contact Lens Forum, December 1989.
- "Comparison of Two Care Systems When Used With Low Dk and High Dk Silicone/Acrylate Materials", Journal of the American Optometric Association, November/December 1989.
- "Contact Lens-Induced Superior Limbal Keratoconjunctivitis", Contact Lens Forum, July 1990.
- "Bitoric RGP Lens Used in the Correction of Astigmatism Caused by Trauma", International Contact Lens Clinic, March/April 1992.
- "Lenticular Vs. Single Cut For Low Plus RGP's - The Better Design For Your Patients", Contact Lens Spectrum, October 1994.
- "Comparison of Simulated K's Measured by Computerized Videographs to Keratometer Measurements", International Contact Lens Clinic, September/October 1994.

PUBLICATIONS, INVITED PAPERS AND POSTERS (CONTINUED)

- "Posterior Polymorphous Dystrophy Patient Fit with Bitoric RGP's", Review of Optometry, December 1994.
- "Computer-Assisted Videography and the Aspheric RGP", Contact Lens Spectrum, May 1995.
- "A Patient with Microcornea and Cornea Plana Fit with RGP Contact Lenses", Poster presented at the American Academy of Optometry Meeting, December 11, 2000.
- "Posterior Keratoconus Previously Diagnosed as Amblyopia", Poster presented at the American Academy of Optometry Meeting, December 2004.
- "Using a Topographer to Measure the Base Curve of GP Lenses", Poster presented at the American Academy of Optometry Meeting, December 2005.
- "Using the "Yellow Rule" on Corneal Topography to Predict Successful Initial Base Curve Selection in Keratoconic RGP Lens Fitting", Presented at the American Academy of Optometry Meeting, December 2006.
- "Safety and Efficacy of Overnight Orthokeratology in Myopic Children", Journal of the American Optometric Association, May 2007.
- "Different Ways of Measuring IOP in Patients with Keratoconus", Presented at global meeting on keratoconus in Las Vegas, NV, January 2008.

CONTINUING EDUCATION LECTURES

- "Contact Lens Care Solutions", 2 hours, Ohio Optometric Association Spring Seminar, 1980.
- "Contact Lens Update", 2 hours, 1st Optometric Technician Reunion, Columbus Technical Institute, March 1980.
- "Refitting Hard Lens Patients with Gas Permeable Lenses", 1 hour, Noon Seminar, April 2, 1982.
- "Gas Permeable Lenses", 1½ hours, Central Michigan Optometric Society, May 1982.
- "Contact Lens Update", 1½ hours, Central Michigan Optometric Society, May 1983.
- "What's New in Contact Lenses", 1 hour, Fall Educational Seminar, Michigan Optometric Association, November 1983.
- "Correction of Astigmatism with Gas Permeable Lenses", 1½ hours, Optometry IV Seminar, July 1983.
- "Contact Lenses", 1½ hours, Pre-Optometry Club. March 1984.
- "Contact Lens Update", 1½ hours, Clinical Workshop for Clinical Associates, March 1984.
- "Contact Lens Update", 1 hour, Spring Educational Seminar, Michigan Optometric Association, May 1984.
- "What's New in Contact Lenses", 3 hours, Fall Contact Lens Seminar, Michigan Optometric Association, Flint, Michigan, October 1984.

- "Contact Lens Design", 3 hours, Metropolitan Detroit Optometric Society Seminar, Troy, Michigan, March 1985.
- "Contact Lens Solutions for the Pharmacist", 2 hours, Ferris State University, School of Pharmacy Precepta Conference, October 1985.

CONTINUING EDUCATION LECTURES (CONTINUED)

- "Rigid Gas Permeable Lens Design", 1 hour, Alumni Day, Ferris State College of Optometry, October 1985.
- "Contact Lens Update", 1½ hours, Clinical Associates Workshop, Ferris State University, March 1985.
- "Contact Lens Complications", 2 hours, Therapeutics Course, Lansing, Michigan, March 1986.
- "Contact Lens Update" and "Contact Lens Complications", Seminar Sponsored by Southern Ohio Optometric Society, May 1986.
- "Contact Lens Complications", 3 hours, Therapeutics Course, Lansing, Michigan, March 1987.
- "Fluoropolymers", 1½ hours, Western Michigan Optometric Society, Grand Rapids, Michigan, February 16, 1988.
- Michigan Chapter of American Academy of Optometry, Kellogg Center for Continuing Education, Spring Educational, 3 hours, April 13, 1988.
- "Fluoropolymers", 3 hours, Fall Contact Lens Seminar, Michigan Optometric Association, Flint, Michigan, October 1988.
- "Therapeutic Management of Anterior Segment Diseases", Ferris State University, February 1989.
 - a) Conjunctival Diseases, 3 hours
 - b) Corneal Diseases, 3 hours
 - c) Contact Lens Complications, 1½ hours
- "Therapeutic Management of Anterior Segment Diseases", Livonia, Michigan, March 1989.
 - a) Conjunctival Diseases, 3 hours
 - b) Corneal Diseases, 3 hours
 - c) Contact Lens Complications, 1½ hours
- "Anterior Segment Disease Review", 2 hours, Michigan Optometric Association, Big Rapids, Michigan, August 1989.
- "Fitting RGP's on the Irregular Cornea", 3 hours, Michigan Chapter of the American Academy of Optometry, Lansing, Michigan, April 25, 1990.
- "Therapeutic Management of Anterior Segment Diseases," TPA Course, Big Rapids, Michigan, June 1990.
 - a) Corneal Diseases, 3 hours
 - b) Contact Lens Complications, 1½ hours
- TPA Laboratory Course "Chairside Procedures," Big Rapids, Michigan, August 1990.
- "Rigid Gas Permeable Lens Practice and Theory, Correction of High Astigmatism, Keratoconus and Traumatized Corneas", 4 hours, Cornea and Contact Lens Seminar, Group Health, Inc., Phillips Eye Institute, Minneapolis, Minnesota, September 8, 1990.
- "Contact Lens Update", 2 hours, Michigan Optometric Association Fall Contact Lens Seminar, Flint, Michigan.

- "Advanced Corneal Topography Instrumentation", Optometry Alumni Educational 1992.
- "Corneal Topography", Michigan Optometric Association Contact Lens Seminar, October 1993, Flint, Michigan.

CONTINUING EDUCATION LECTURES (CONTINUED)

- "Corneal Topography", Michigan Paraoptometric Society Meeting, Grand Rapids, Michigan, May 1994.
- "Interesting Contact Lens Cases", Southwestern Michigan Optometric Society Meeting, November 1994.
- "Corneal Mapping Systems", 3 hours, National Eye Research Foundation Meeting, Ferris State University, Big Rapids, Michigan, April 1993
- "Anterior Segment Disorders", 6 hours, TPA Refresher Course, Lansing, Michigan, April 1995
- "Anterior Segment Disorders", 6 hours, TPA Crash Course, Big Rapids, Michigan, May 1995
- "Anterior Segment Disorders", 12 hours, TPA Weekend Course/Workshop, Lansing/Big Rapids, Michigan, June-August 1995
- "Anterior Segment Disorders", 12 hours, TPA Weekend Course/Workshop, Farmington Hills/Big Rapids, Michigan, January-May 1996
- "Corneal Disease", 2 hours, Michigan Academy of Optometry Meeting, East Lansing, Michigan, April 1996
- "Corneal Degenerations and Dystrophies", 3 hours, Muskegon Community College, Muskegon, Michigan, April 1997
- "Contemporary Contact Lens Practice", 3 hours, Muskegon Community College, Muskegon, Michigan, November 1997
- "Corneal Degenerations and Dystrophies", 3 hours, Michigan Optometric Association Convention, Boyne Highlands, Harbor Springs, Michigan, August 1998
- TPA Course/Coordinator of Anterior Segment Course, Also taught "Corneal, Conjunctival and Lid Diseases", 11 hours, and "Foreign Body Removal and Treatment", 3 hour laboratory, Ferris State University, Big Rapids, Michigan, January 4-11, 1999.
- "Optometry: The Primary Eye Care Profession", Lecture at Honor's College, Western Michigan University, October 1998-2000.
- "Interesting Cornea and Contact Lens Cases", Michigan Optometric Association, Annual Contact Lens and Primary Care Seminar, Lansing, Michigan, October 2000.
- "Interesting Cornea Cases", 3 hours, Muskegon Community College, Muskegon, Michigan, April 28, 2003.
- "Interesting Cornea and Contact Lens Cases", 3 hours, Muskegon Community College, Muskegon, Michigan, April 2004.
- "Irregular Cornea", 2 hours, Michigan College of Optometry, Annual Spring Continuing Education Seminar, Big Rapids, Michigan, June 2005.
- "Interesting Contact Lens Cases", 3 hours, Muskegon Community College, Muskegon, Michigan, April 2006.
- "Contact Fitting in Keratoconus", 2 hours, Rosenbaum Eye and Laser

Center's Annual Symposium, Lansing, Michigan, June 13, 2007.

Biographical information

Name: Avesh Raghunandan

Date of Birth: 26th June 1973

Age: 38

Gender: Male

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Tel. No.: (W) 231-591-2172
(H) 616 – 863 9566

Education

Post-graduate and Professional degrees

Institution: University of Durban-Westville (UDW), South Africa

Dates: Jan 1991 – Dec 1995

Degree: B.Optom (Cum laude)

Graduation Date: 1996

Institution: New England College of Optometry (NEWENCO), USA

Dates: Jan 1996 – Apr 1998

Degree/ qualification: Advanced study in diagnosis and therapeutic management of Ocular Diseases.

Graduation Date: 1998

Institution: University of Houston (UH), United States of America

Dates: Aug 1998 – May 2000

Degree: M.S (Physiological Optics)

Graduation Date: 2000

Institution: University of Houston, United States of America

Dates: Aug 2002 – Aug 2006

Degree: PhD (Physiological Optics)

Graduation Date: 2006

Institution: University of Houston (UH), United States of America

Dates: Aug 2002 – Aug 2006

Degree: OD, Doctor of Optometry (Summe cum Laude)

Graduation Date: 2006

Research

Research Projects

a) Optometric Management of the “Diabetic Retinopath”

Where: University of Durban-Westville

Date: 1995

Role: Principal investigator for final year student research project.

b) The effect of Spatial frequency on the magnitude of Negative Depth Aftereffects

Where: University of Houston

Date: 1999 - 2000

Role: Masters thesis

c) The effect of negative depth aftereffects on monocular visual direction

Where: University of Houston

Date: 1999 - 2000

Role: Masters thesis

d) Revisiting the diagnostic capability of the Fluid Loading test in Primary Open-Angle Glaucoma

Where: University of Durban-Westville

Date: 2001

Role: Principal investigator – independent research as faculty

e) A population-based, randomized, multi-cluster study on refractive error prevalence amongst urban and rural African children

Where: Durban – South Africa (International Center for Eyecare Education)

Date: 2001 – 2002

Role: Second author and data management/analysis

f) Ocular changes during pregnancy

Where: University of Durban-Westville

Date: 2001

Role: Supervisor for student Masters project.

g) The interrelationship between exercise-induced changes of systemic blood pressure and intraocular pressure.

Where: University of Durban-Westville

Date: 2001

Role: Project supervisor for final year student project

h) Ocular indicators of Cycloplegia in the African eye.

Where: University of Durban-Westville

Date: 2002

Role: Co-supervisor for final year student project

i) Investigating the use of Cyclopentolate-induced-cycloplegia as an alternative to Atropine-induced-Cycloplegia for outpatient cycloplegic pediatric refractions.

Where: Edendale Hospital Eye clinic – South Africa

Date: 2002

Role: Co-supervisor and statistical assistant

j) The effect of contrast on two-frame motion detection

Where: University of Houston

Date: 2002 - 2003

Role: PhD directed research

k) Temporal characteristics of contrast gain control in two-frame motion

Where: University of Houston

Date: 2002 - 2003

Role: PhD directed research

l) Binocular sensory fusion ranges with increasing inter-stimulus interval

Where: University of Houston

Date: 2003 - 2006

Role: PhD directed research

m) Binocular fusion and interocular motion direction discrimination

Where: University of Houston

Date: 2003 - 2006

Role: PhD directed research

n) The effect of retinal jitter on referenced and un-referenced two-frame motion direction discrimination thresholds.

Where: University of Houston

Date: 2004-2006

Role: PhD directed research

o) Using the reverse correlation Eye Movement Correlogram technique to derive pursuit response latency distributions for first-order and third order motion stimuli.

Where: University of Houston

Date: 2005-2006

Role: PhD directed research

p) Binocular capture scaling with the spatial frequency of the monocular stimulus.

Where: Michigan college of Optometry – Ferris State University

Date: 2006-2007

Role: Independent research

q) Contrast interactions in the Binocular capture effect.

Where: Michigan college of Optometry – Ferris State University

Date: 2007-2008

Role: Independent research

r) Effects of spatial frequency pairing and contrast polarity in the Binocular Capture effect.

Where: Michigan college of Optometry – Ferris State University

Date: 2009 - Present

Role: Independent research

s) Potential Visual Acuity Prediction in young adults using the pVEP response amplitude.

Where: Michigan college of Optometry – Ferris State University

Date: 2009 - Present

Role: Independent research

t) The effect of string length on reading span and reading speed

Where: Michigan college of Optometry – Ferris State University

Date: 2010- Present

Role: Independent research

Outside talks

Title: Diabetes and the eye: The importance of paramedical intervention

Where: Addington Hospital – Nursing department, Durban, South Africa

Date: 2000

Role: Presentation as part of an interdisciplinary symposium for the Nursing Department

Title: Cycloplegia and its challenges in the African Eye

Where: Vision Conference, Durban, South Africa

Date: 2002

Role: Presentation as part of eye-care challenges that face the Africa continent.

Title: Punctal Occlusion – Intimations and practical application

Where: SAOA conference, Johannesburg, South Africa

Date: 2002

Role: Conducted hands-on workshop on punctal occlusion

Title: Healthy Eyes Healthy People 2005 – Low Vision Rehabilitation

Where: University of Houston – College of Optometry

Date: 2005

Role: Educational out reach program regarding low vision, low vision services and low vision devices that are available for rehabilitative intervention.

Title: The application of high magnification retinal imaging to motion psychophysics

Where: Center for Adaptive Optics - Retreat

Date: 2005 – (November 10 – 13)

Role: Oral presentation regarding the novel adaptation of the Adaptive Optics Scanning Laser Ophthalmoscope for simultaneous imaging and stimulation of the human retina while conducting psychophysical judgments.

Title: The influence of fixation eye movements on motion judgments using High magnification retinal imaging

Where: Devers Eye Institute – Discoveries in Sight

Date: 2005 – (December 16)

Role: Invited speaker.

Scientific Posters

Title: **The effect of spatial frequency on negative depth aftereffects**

Where: ARVO, Ft. Lauderdale

Date: 2000

Role: Poster presentation as part of a Vision science conference

Title: **Binocular Contrast interactions in two-frame motion.**

Where: Houston Society for engineering in medicine and biology conference - 2003

Date: 2003 – April 3-4

Role: Poster presentation as part of a Bio-medical and engineering conference

Title: **Contrast interactions in two-frame motion discrimination imply a binocular site of contrast gain control for motion.**

Where: VSS, Florida

Date: 2003 – May

Role: Poster presentation as part of a Vision science conference

Title: **Binocular fusion and interocular motion direction discrimination.**

Where: VSS, Florida

Date: 2004 – May

Role: Poster presentation as part of a Vision science conference

Title: **The effect of retinal jitter on referenced and un-referenced motion discrimination thresholds.**

Where: VSS, Florida

Date: 2005 – May

Role: Poster presentation as part of a Vision science conference

Title: **Eye movement correlograms reveal first-order interocular motion processes.**

Where: VSS, Florida

Date: 2006 – May

Role: Poster presentation as part of a Vision science conference

Title: **Binocular capture scales with the spatial frequency of the monocular stimulus.**

Where: AAO, Florida

Date: 2007

Role: Poster presentation as part of a Vision science/ Optometry conference

Title: **Vertical separation and not positional uncertainty affects the magnitude of Binocular capture.**

Where: AAO, Florida

Date: 2008

Role: Poster presentation as part of a Vision science/ Optometry conference

Title: **Binocular Capture: The effect of mismatched spatial frequency and opposite contrast polarity.**

Where: VSS (Vision Sciences Society), Florida

Date: 2010

Role: Poster presentation as part of a Vision science conference

Title: **Estimating visual acuity potential in young adults by using the pVEP response amplitude.**

Where: AAO, San Francisco

Date: 2010

Role: Poster presentation as part of a Vision science/ Optometry conference

Scientific Publications

1. **Raghunandan A**, Stevenson SB. *A review of the development of concepts in stereoscopic mechanisms*; S Afr Optom 2001 60(2).
2. **Raghunandan A**, Bodasing I. *The Water Drinking test: revisiting its effectiveness as a provocative test*; S Afr. Optom 2002 61(1).
3. Naidoo K, **Raghunandan A**, Mashige P, Govender G, Holden B, Ellewein LB, Pokharel GP. *Refractive error and visual impairment in African children in South Africa*, IOVS 2003 Vol.:44 (9).
4. **Raghunandan A**, Stevenson SB. *Binocular Contrast Interactions in Two-Frame motion discrimination*, Perception and Psychophysics, 2007, Vol.: 69(6): 1002-8.
5. **Raghunandan A**. *Clinical Visual Electrophysiology: A simple approach for the primary eye care practitioner*, The Michigan Optometrist: Journal of the Michigan Optometric Association, 2007, Vol.: 86(2): 8-12.
6. Pate Lloyd, **Raghunandan, A**. *PSS follows patient's stress*. Review of Optometry 2008, Vol.: 145 (02).
7. **Raghunandan A**, Buckingham RS. *The clinical utility of visual electrodiagnostics in a patient with non-organic vision loss*. Optometry, 2008, Vol.: 79: 436-443.
8. **Raghunandan A**, Coleman AS, Saladin JJ. *Spatial scaling of the binocular capture effect*. Optom. Vis. Sci., 2009, 86(3), 279-285.
9. **Raghunandan A**, Frasier J., Poonja S., Roorda A., & Stevenson S. B. (2008). *Psychophysical measurements of referenced and unreferenced motion processing using high-resolution retinal imaging*. Journal of Vision, 8(14):14, 1-11, <http://journalofvision.org/8/14/14/>, doi:10.1167/8.14.14.
10. **Raghunandan A**, Buckingham RS. *Nonorganic vision loss as an optometric term*. Optometry, 2009, Vol.:80(12):677-678.[Letter to Editor: Response to reader J Tassinari]
11. Rajaram V, **Raghunandan A**. *Use of the Pattern Visual Evoked Potential (P-VEP) in the prediction of visual acuity potential in Young Adults*. ESO international Vision Science and Optometry conference, Chennai, India, 2010, published synopsis.
12. Cisarik, P., Kasthurirangan, S., Visco, F., Bedell, H., Stevenson, S., & **Raghunandan, A**. *The effect of a temporary absence of target velocity information on visual tracking*. Journal of Eye Movement Research, 2010, 3(4):4,1-16

Research positions

- Data management and statistical analysis of data – WHO/NEI funded study on the prevalence of refractive error amongst children of African origin – Durban, South Africa, 2001 and 2002.
- Research assistant for Dr. KS Naidoo (UDW) – Study investigating the prevalence of ocular abnormalities within rural African regions – clinical data collection: 2000, 2001 and 2002.
- Research supervisor for undergraduate students at the University of Durban-Westville – 2001.
- Masters thesis co-supervisor for three post-graduate students at the University of Durban-Westville- 2001 and 2002.
- Research Assistant for Dr. SB Stevenson – University of Houston – College of Optometry – 2002 - 2006.
- Independent Research – Ferris State University – Michigan College of Optometry – 2006 - present.

Teaching training

1. Course title: Teaching and oral communication
Institution: University of Houston – College of Optometry

Dates: 1998

Role: Core course requirement

2. Course title: Primary Optometry Lab
Institution: University of Houston – College of Optometry

Dates: 2005

Role: Teaching Assistant

Clinical Experience

- Clinical Private Practice: Southgate Optometrist – 1996 – 1998
- Clinical Preceptor – University of Durban-Westville – 1996 – 1998
- Ocular Diagnostics and Therapeutic training – Edendale Hospital – 2000
- Ocular Diagnostics and Therapeutic training – Prince Mshiyeni Hospital – 2000
- Diagnostic and Therapeutic Optometrist – Stanger Provincial Hospital – 2000 – 2002
- Clinical Co-ordinator – University of Durban-Westville – 2003
- Student Extern – Dr. Bruce Wick – Houston – 2005 – 2006
- Glaucoma Externship – Dr Robert Feldman – Memorial-Hermann Eye institute – Houston – 2006.

- Completed Glaucoma Certification – 2006 – Texas Optometry Board
- Clinical Preceptor – Pediatric and Binocular Vision Services– Michigan College of Optometry
- Clinical Preceptor – Primary Care Services – Michigan College of Optometry.
- Visual Electrodiagnostic Testing – Michigan College of Optometry.
- Clinical Preceptor –Cornea and Contact lens Clinic – Michigan College of Optometry.

Professional affiliation

- **Health Professional Council of South Africa**
- ARVO
- VSS
- Michigan Optometric Association
- American Optometric Association
- American Academy of Optometry

Teaching positions

- 1996 to 1998 – Part-time lecturer of physiological optics and clinical preceptor at the University of Durban-Westville.
- 1999 – Teaching assistant at the College of Optometry, University of Houston – Ocular anatomy.
- 2001 – 2002 – Lecturer of physiological optics and ocular diagnostic techniques at the University of Durban-Westville.
- 2001 – 2002 – Resident clinical supervisor for final year optometry students – This encompassed the diagnosis and treatment of ocular disease at the Stanger Provincial Hospital.
- 2004 – Teaching Assistant: Clinical Procedures – University Of Houston College of Optometry
- 2006 – Present: Vision Science, Physiological Optics, Binocular Vision– Michigan College of Optometry.
- 2006 – Present: Lab instructor – Binocular Vision Procedures Lab, and Vision Therapy Lab
- 2009 – Promoted to Associate Professor – Vision Science - Michigan College of Optometry.

Student Supervision

- Pamela Snyder (MCO): 2007
 - Case report: "Correcting vertical deviations aids horizontal fusion".
- Jennifer Shaba (MCO): 2008
 - Case Report: "Incongruous Hemianopsia discovered on Routine Asymptomatic Eye Exam".
- Kenneth Holmberg (MCO): 2008
 - 4th year research project: "A critical review of literature investigating the validity of functional visual acuity estimates derived from human pattern VEP recordings".
- Andrea Sewell (MCO): 2010
 - 4th year research project: "The effect of letter string length on the reading span and reading speed in normal adult subjects."

Service:

- 2007- Present –Reviewer for Optometry and Vision Science
- 2007- Present – Member of the Michigan Commission on Law Enforcement – Vision Standards Committee.
- 2009 - Present: Appointed Chair of the College Strategic planning committee.
- 2009 _ Present: Promotions and Merit Committee – Michigan College of Optometry
- 2009 – Present: Committee member of the Faculty Development and Research Committee
- 2010: Member of the Ferris State University Diversity Taskforce Committee.
- 2010: Member of the Academic Program Review Committee – Michigan College of Optometry

Awards

- 1994 – Award for outstanding student – Physiology I and II
- 1995 – Award for Outstanding undergraduate research
- 1996 – Awarded B.Optom degree cum laude
- 1996 – Award for Outstanding undergraduate student - UDW
- 1996 – Award for outstanding Optometry Student – South African Optometric Association
- 1998 – Fulbright Scholarship for Masters studies in USA
- 1999 – Outstanding Teaching Assistant Award - Ocular Anatomy
- 1999 – American Optometric Association Travel grant
- 2001 – Awarded first place for student undergraduate research project supervision – Optometry Department UDW
- 2002 – Erhardt fellowship for Ph.D. study at the University of Houston.
- 2003 – Certificate in recognition of creative endeavor and achievement in research at the Houston Society for Engineering in Medicine and Biology 20th Annual Conference.
- 2003 – Awarded letter of excellence for outstanding clinical performance Spring-2003 – University of Houston – College of Optometry.
- 2003 – Awarded letter of excellence for outstanding clinical performance Summer-2003 – University of Houston – College of Optometry.
- 2003 – Fall semester – Dean’s List - University of Houston – College of Optometry.
- 2004 – Awarded VSP Scholarship for outstanding academic performance – University of Houston – College of Optometry.
- 2004 – Spring 2004 – Dean’s List - University of Houston – College of Optometry.
- 2004 – Invited member of the Beta-Sigma-Kappa Honorary Society.
- 2004 – Awarded letter of excellence for outstanding clinical performance Fall-2004 – University of Houston – College of Optometry.
- 2005 – Spring 2005 – Dean’s List - University of Houston – College of Optometry.
- 2005 – Awarded the Floyd E Strickland Travel Grant - University of Houston – College of Optometry.
- 2005 – Awarded the Outstanding Graduate Student Teaching Assistant Award (Spring 2005) - University of Houston – College of Optometry.
- 2006 – Awarded the SWCO Red River Shoot-Out Trophy: Team effort representing UHCO.
- 2006 – Awarded the OD Degree *Summe Cum Laude*.
- 2006 – Award for Highest GPA – Beta Sigma Kappa Honor Society – University of Houston College of Optometry.
- 2007 – Emil Arnold Award for contributions to the Michigan Optometrist Magazine.
- 2009 – Ferris Faculty Research Grant Award
- 2009 – Michigan Foundation for Vision Awareness Grant

- 2009 – Merit promotion from Assistant Professor to Associate Professor at the Michigan College of Optometry
- 2010 – Awarded Tenure as Associate Professor – Ferris State University
- 2011 – Timme Travel Grant Award – Ferris State University

Scholarship and Research Grant Awards

- 1) Fulbright Scholarship – 1998
- 2) Erhardt Fellowship – 2002
- 3) Ferris Faculty Research Grant Award: \$5400.00
- 4) Michigan Foundation for Vision Awareness (MFVA) Research Grant: \$1500.00

Skills

- **Research Skills**
 - Matlab programming
 - Independent designing and initiation of visual-psychophysical experiments
 - Operation of SRI-Dual Purkinje Image Eye tracker
 - Experience with the use of Adaptive Optics Scanning Laser Ophthalmoscope
- **Optometric Skills**
 - Clinical experience in ocular disease diagnosis, treatment and management.
 - Contact lens fitting.
 - Pediatric vision care.
 - Advanced Binocular Vision management (strabismic and non-strabismic disorders)
 - Clinical Visual Electrodiagnostic testing and interpretation.

Personal and Professional Referees

- **Dr Scott B Stevenson**
 - PhD Thesis advisor - University of Houston - College of Optometry – sbstevenson@uh.edu.
 - Tel: 713 743 1960
- **Dr H E Bedell**
 - University of Houston - College of Optometry – hbedell@uh.edu.
 - Tel: 713 743 1930
- **Dr Kovin S Naidoo**
 - International Center for Eyecare Education - (South Africa) - k.naidoo@icee.org.
- **Dr S Chung**
 - University of California, Berkeley – College of Optometry – s.chung@berkeley.edu.
 - Tel: (510) 642-4720

CURRICULUM VITAE 2011

Vandana Rajaram, O.D, Ph.D.

Michigan College of Optometry

Ferris State University

1310 Cramer Circle

Big Rapids MI 49307

Telephone:

Office: 231-591-2186

e-mail rajarav@ferris.edu

ACADEMIC APPOINTMENTS:

- Assistant Professor, Michigan College of Optometry, Ferris State University, March 2008-present
- Faculty, Elite School of Optometry, Chennai, India 1996-1999

EDUCATION:

- **Doctor of Optometry**
University of Missouri Saint Louis (December 2007)

Ph.D (Vision Science/Physiological Optics)

University of Missouri Saint Louis (May 2005)

Bachelor of Science (B.S) in Optometry

Elite School of Optometry, Chennai India (August 1996)

Affiliated to the Birla Institute of Technology and Science, Pilani, India.

DOCTORAL DISSERTATION:

Reflexive and voluntary shifts of visual attention in reading disability (*Supervisor: Vasudevan Lakshminarayanan, Univ. of Waterloo, School of Optometry, Ontario, Canada*)

TEACHING EXPERIENCE

MICHIGAN COLLEGE OF OPTOMETRY, FERRIS STATE UNIVERSITY

- Vision Science I (Spring 2009-11)
- Vision Science II (Fall 2008-11)
- Ophthalmic Optics (Fall 2010)
- Public Health & Optometry (Summer 2010-11)
- Clinical Problem Solving II (Summer 2008-2011)

CLINICS

- MCO Primary Care Clinic (Spring & Fall 2008-10)
- Baldwin Primary Care Clinic (Spring & Fall 2008-10)
- MCO Contact Lens Clinic (Spring & Fall 2008-10)
- MCO Primary Care Clinic (Summer 2008-10)

UNIVERSITY OF MISSOURI, ST. LOUIS - COLLEGE OF OPTOMETRY

Graduate Teaching Assistant (1999-2005)

- **Geometric Optics. (1999-2005)**
Student training in problem solving in the subject areas prescribed by the NBEO for Geometric Optics.

- **Physical Optics (2000-2004)**

Student training in problem solving in the subject areas prescribed by the NBEO for Physical Optics and Photometry.

Laboratories:

- Geometric Optics. (1999-2005)

- Physical Optics (2000-2004)

- Anatomy and Physiology Laboratory (2000)

My responsibilities included setting up the experiments, conducting laboratory sessions and grading.

ELITE SCHOOL OF OPTOMETRY, CHENNAI, INDIA (1996-1999)

Faculty/Clinical instructor

- **Optometric Optics**

Laboratories

- Binocular Vision

- Low Vision

- Contact Lens

UNIVERSITY AND COLLEGE COMMITTEES:

- Timme Travel Grant Review Committee (2008-2010)

- Faculty Research and Development Committee (Chair) (2009-10)

- Faculty Recruitment Committee

- Program Review Panel-MCO 2010-11

PROFESSIONAL DEVELOPMENT

- EIVOC 2010
- ASCO – Summer Institute for Faculty Development (2009)
- Ferris Connect Training (2008)
- New Faculty Transition Program (2008)
- New Faculty Orientation Program (2008)

PROFESSIONAL AFFILIATIONS

- Member, Michigan Optometric Association (2008-10)
- Member, American Optometric Association (2008-10)

RESEARCH EXPERIENCE:

(Please see section titled Published abstracts)

- **Current Research In Electrophysiology (2009 – present)**
The use of pattern VEP in the prediction of visual acuity of young adults

The objectives of the current electrophysiology research study is to investigate the relationship between pVEP waveform amplitudes and the magnitude of induced spherical blur and to use the information from this investigation in developing an algorithm that would allow us to predict visual acuity based upon pVEP amplitudes. VEP data collection is currently underway. The initial phase of the study is close to completion. An abstract was submitted to the American Academy of Optometry (AAO) meeting, 2010 and was accepted as a poster presentation.

- **2001-2005 (Research work in the area of visual attention)**
Comparison of the voluntary and reflexive shifts of spatial attention between dyslexic and normal readers -

My doctoral thesis was done in the area of visual attention and reading disability. As part of this research, I compared visual attentional skills and reading achievement in dyslexic and normally

reading children. Visual attention is a higher level cognitive process that plays a cardinal role in many important visual tasks pertaining to everyday life such as driving or reading. Literature suggests that certain deficits in attentional allocation may specifically be related to certain types of reading problems. This research done for my thesis aimed at identifying these deficits and their connection to reading. A pilot study was initially conducted which investigated attentional shifts in normal adults using two different stimulus paradigms. I am currently in the process of writing up these results into journal articles.

- **2003 - 'Three-parameter exponential model of dark adaptation in aging eyes' – A re-analysis –**
This study was done to determine the relative contributions of optical and neural

factors in deficits in the mechanism of dark adaptation in the elderly.

- **2000-2002 (Research in Binocular Vision)
Studies in binocular vision investigations of the Apparent Fronto Parallel-plane (AFPP)
horopter –**

These studies investigated the impact of optical and non-optical factors on the shape and deviation of the horopter. The results were presented at various national meetings.

- **1997 - ' Pseudoaccommodation in pseudophakia' (Elite School of Optometry, India)**
This project explored the factors contributing to the residual accommodative ability seen in some patients following cataract surgery and intra-ocular lens implantation.

PUBLISHED/CITABLE ABSTRACTS:

- *V. Rajaram, A.Raghunandan. Use of the Pattern Visual Evoked Potential in young adults. Academy 2010, San Francisco, CA. November 17-20, 2010*
- *V. Rajaram, A.Raghunandan. Use of the Pattern Visual Evoked Potential in young adults. ESO International Vision Science Conference August, 2010 (Souvenir article)*
- *V. Rajaram, V. Lakshminarayanan, R.Freeman, Image degradation, disability glare and the horopter. Academy 2007, Tampa, Florida. October 24-27, 2007.*
- *V. Rajaram, V. Lakshminarayanan, Reflexive and voluntary shifts of visual attention in reading disability. Academy 2007, Tampa, Florida. October 24-27, 2007.*

- V. Rajaram, C.Bassi, *Three parameter exponential modeling of dark adaptation in aging eyes. Academy 2004 Global Pacific Rim Conference; April 2-4, 2004; Honolulu, Hawaii, Page 182.*
- V. Rajaram, V. Lakshminarayanan *Comparison of shifts in spatial attention using discrimination and detection tasks. Academy 2004 Global Pacific Rim Conference; April 2-4, 2004; Honolulu, Hawaii. Page 148.*
- A. Raghuram, V. Rajaram, V. Lakshminarayanan, *Speed Discrimination Using Simultaneously Presented Grating Stimuli. Invest. Ophthalmol.Vis.sci. 44: ARVO E-Abstract 4085, 2003*
- V. Lakshminarayanan, A. Raghuram, V. Rajaram, *Effect of Psychophysical Procedures on Speed Discrimination. Invest. Ophthalmol.Vis. Sci., 44: ARVO E-Abstract 4086, 2003.*
- V. Rajaram, J.A.Beatty, V. Lakshminarayanan, *Repeatability of Longitudinal Horopter Data for Fixation Distances of 40cm and 75cm. Invest. Ophthalmol Vis. Sci., ARVO E-Abstract 4673. 2002.*
- V. Lakshminarayanan, V. Rajaram, J.Beatty, *Emperical Longitudinal Horopter with Induced Optical Displacement. Invest. Ophthalmol. Vis. Sci., ARVO E-Abstract 4715, 2002.*
- V. Rajaram, J.Beatty, L. Neiva, V. Lakshminarayanan, *Normative Data and Effects of Refractive States and Correction Type on the 40cm Longitudinal Horopter. Invest Ophthalmol.Vis.Sci. ARVO E-Abstract 4716, 2002.*
- J.Beatty, V. Rajaram, V. Lakshminarayanan, *Induced Disparity and the AFPP Horopter Optom. Vision Sci., 79(21s):213, 2002.*
- V. Rajaram, J. Beatty, L.Nieva, V. Lakshminarayanan, *Normative horopter values of r0 and h for fixation distances of 40cm and 75cm. Optom. Vis. Sci., 78(12s):158, 2001.*

HONORS/DISTINCTIONS

- Optometric Mini Bowl winner University of Missouri - St. Louis; 2007
- UMSL Deans List 2006-07

- Outstanding Teaching Assistant Award. Graduate School Univ. of Missouri, St. Louis - 2003
- American Academy of Optometry Student Travel Fellowship Award (ARVO, Fort Lauderdale, FL. May 2002)
- American Academy of Optometry Student Travel Fellowship Award (AAO, Philadelphia, PA. December 2001)
- Johnson and Johnson Award for paper presentation. All India Optometry and Contact Lens Conference India (December, 1997)

PROFESSIONAL SPEAKING ENGAGEMENTS (Invited)

- **The use of Pattern VEP to predict visual acuity potential in young adults.** May 2010. Faculty research and development seminar. Michigan College of Optometry. Ferris State University.
- **Reflexive and voluntary shifts of visual attention in reading disability** Mid-America Vision Conference; April 2005; St. Louis, MO
- **Dyslexia: a disorder of Visual–spatial attention.** Mid-America Vision Conference; April 18, 2004; St. Louis, MO
- **Pseudoaccommodation in pseudophakes.** All India Optometry and Contact lens Conference; Dec 6-7,1997; Pune, India.
- **Toxic effects of contact lens solutions.** All India Contact Lens Conference; Dec 3-4, 1995; New Delhi, India.
- **Systemic and ocular diseases causing visual impairment.** National Institute of Visual Health; April 2, 1997; Madras, India.
- **Refraction, Spectacle and Contact lenses and Refractive Surgery talk Series.** Refraction Workshop; Department of Ophthalmology, St. John's Academy of Health Sciences; Feb 28-March 1, 1998; Bangalore, India.
- **Clinical Application of Prisms.** Refraction Workshop; Rural Eye Hospital, Sankara Nethralaya, Feb-March'99; Madras, India.

SKILLS:

a. STATISTICS KNOWLEDGE

- Proficient in the use of SPSS and SigmaPlot in statistical analysis. Have good experience in the use of statistical software for experimental design, data management and data analysis.
- Psychometric theory including Multidimensional scaling, Item Response theory, Test and scale construction and Factor analysis

b. COMPUTER KNOWLEDGE

- Basic C Programming

GRADUATE COURSES TAKEN:

- Experimental Methodology and Psychophysics
- Monocular and Binocular Sensory Processes
- Ocular Anatomy and Physiology
- Sensory Neuroscience
- Visual Optics
- Statistics
- Psychometric Theory
- Non-invasive assessment of the visual system

EXTERNSHIPS/ CLINICAL TRAINING:

- Saint Louis University Eye Institute, St. Louis, MO (May 2007 – July 2007)
Institutional/Multidisciplinary rotation
- VA Medical Center, St. Louis MO (July 2007 – August 2007)
Institutional/Multidisciplinary rotation
- East Saint Louis, IL (August 2007 – October 2007)
Primary Care
- University Eye Center, UMSL, St. Louis MO (October 2007 – December 2007)

References -

*Dr. Vasudevan Lakshminarayanan Ph.D., Professor of Optometry, Physics and Electrical Engineering
School of Optometry, University of Waterloo, ON, Canada Phone: (519) 888-4567 ext. 38167 E-mail:
vengu@uwaterloo.ca*

Dr. Edward Jarka O.D, M.S., Assistant Clinical Professor, University of Missouri – St. Louis. Phone: (314) 516-5359 E-mail: jarka@umsl.edu

Dr. Edward Bennett Director O.D, M.S. Associate Professor of Optometry, Director Student Services, Co-chief Contact Lens Service University of Missouri – St. Louis Phone: (314) 516-6258 E-mail: EBennett@umsl.edu

Dr. Christine Garhart D.V.M, Ph.D. Clinical Assistant Professor University of Missouri – St. Louis. Phone: (314) 516-5956 E-mail: Garhartc@umsl.edu

MARK SWAN, OD, MEd, FAAO

PERSONAL

Residence Address: 474 Shaw Estates Dr, NE
Work Address: Michigan College of Optometry
Rockford, MI 49341 Ferris State University
(616)540.3940 Big Rapids, MI 49307
E-mail mswan@ferris.edu (231)591.2184

PROFESSIONAL EDUCATION

University of California, Berkeley, May 1990-May 1991, Master of Arts in Reading Disabilities.

Ferris State University, August 1984-May 1988, Doctor of Optometry.

Ferris State University, August 1981-May 1984, (Pre-optometry).

LICENSURE / CERTIFICATION

Accreditation Council on Optometric Education - Accreditation Site Visit Consultant, 2004

Privileged to provide optometry services, St. Mary's Mercy Medical Center, 2002

Privileged to provide optometry services, Cherry Street Health Services, 2002

Privileged to provide optometry services, Michigan College of Optometry, 1998

University of California, School of Optometry, VDT Eye Care Certification Course, 1995

University of Houston Concentrated Ocular Therapeutics Course, 1992

State of California, 1989

State of Texas, 1993

State of Michigan, 1988

State of Wisconsin, 1988

International Association of Boards of Examiners in Optometry, 1988

PROFESSIONAL EXPERIENCE

Rockford Vision Services, Inc. Rockford, Michigan

2006 – present, Optometrist part-time; primary eye care as an employee.

Private Consultant Rockford, Michigan

2004 – present, data analysis, literature review and expert opinion regarding standard of care.

Technical Consultant MCOLES Lansing, Michigan

2002 – present, provide advice and patient care regarding vision standards for the Michigan Commission on Law Enforcement Standards.

Technical Consultant to MDCH Lansing, Michigan

2002 – present, provide advice regarding the MI Dept. of Community Health Vision Screening Program

Michigan College of Optometry Big Rapids, Michigan

2003 - present, Chief of Pediatrics and Binocular Vision Service.

2002 - present, Chief of Optometric Services, St. Mary's Hospital - Center for Diabetes and Endocrinology.

2001 - 2003, Chief of Cornea and Contact Lens Service.

1999 - 2005, Associate Professor, 2005 – present Professor; patient care provided in Family Practice,

Pediatrics & Binocular Vision Specialty, and Cornea/Contact Lens services. Consultation provided to optometric colleagues, teachers, and tutors regarding care in these

services. Special areas of patient care include reading disorders, workstation ergonomics,

infant contact lens fitting and management of diabetic eye disease.

University Eye Institute Houston, Texas

1992 - 1998, Assistant Professor; patient care provided in all primary care clinics and pediatric specialty clinics (reading disabilities, strabismus, amblyopia, infant and disability care).

Eye Contact Houston, Texas

1995 - 1998, Optometrist part-time; primary eye care as an employee.

Detroit Optical Centers, 1992	Grand Rapids, Michigan
EyeExam 2000, 1990-1992	Concord, California
Private Practice, 1990-1991	Richmond, California
Private Practice, 1988-1990	Grand Rapids, Michigan
Detroit Optical Centers, 1988-1990	Grand Rapids, Michigan

2005 – present, Professor (1999 - 2005, Associate Professor)

Teaching

A. Clinical - Attending Faculty, 1999 - present.

Provide clinical instruction for 2nd, 3rd, and 4th year professional students and residents in primary care, pediatrics and binocular vision, contact lens, and diabetes eye care clinics.

B. Didactic -

OPTM 746 Treatment of Accommodation and Binocular Vision Dysfunction, Summer 2010

Lecturer for 50% of course, coordinated with lab component

OPTM 741 Developmental & Behavioral Optometry, Fall 2009 – present

Lecture and Lab instructor for 50% of course

OPTM 752 Optometric Case Studies, Fall 2007 – 2009.

Primary care clinical grand rounds

OPTM 645 Diagnosis of Accommodation and Binocular Vision Dysfunction, Spring 2007 - present.

Course Master for all lectures and labs this course replaced all of 522 and 1/3 of 523.

OPTM 522 Assessment of the Oculo-motor System, Fall 2002 - 2005.

Lecture and Lab Instructor for clinical assessment and decision making regarding binocular vision conditions, including minimal binocular dysfunction, strabismus, and amblyopia.

OPTM 513 Environmental Optometry, Winter 2000- 2006.

Lecture Instructor for clinical assessment and decision making regarding conditions of the visual environment, including lighting principles, protective and preventative principles, and occupational requirements.

OPTM 523 Management of Binocular Vision Anomalies / Vision Therapy, Winter 2004 - 2006.

Lecture and Lab Instructor for clinical management of binocular vision conditions, including lenses, prism, and vision therapy.

C. Invited Lectures -

Pharmacological Management of Amblyopia. Presented to the Michigan College of Optometry Summer 2008 CE Event, Big Rapids, MI, June 2008.

Michigan Department of Community Health - Vision Technician Workshop, Two hour presentation on InfantSEE and Amblyopia, Grand Rapids, MI, September 2006 & 2008.

Using Technology to Improve Your Effectiveness in Lecture. Presented at the Optometric Educators Exchange, Optometry's Meeting, June 2006.

Pediatrics Update. Presented to the Michigan College of Optometry Summer 2006 CE Event, Big Rapids, MI, June 2006.

Pharmacological Management of Amblyopia. Presented to the Michigan College of Optometry Summer 2005 CE Event, Big Rapids, MI, June 2005.

Rigid Gas Permeable Lens Institute Workshop - Panelist and Fitting Instructor, Michigan College of Optometry, March 2005.

Integrating Infants Into the Primary Care Practice. presented at the MOA Winter Educational Seminar, Kellogg Center for Continuing Education, East Lansing, MI, February 2005.

MCO Student Grand Rounds - InfantSEE, Clinically Significant Macular Edema, Conjunctival Papilloma, Posner Schlossman Syndrome. presented to the West Michigan Optometric Association, January 2005.

Diabetic Eye Care for the Primary Care Physician. presented at the 4th Annual Diabetes and Endocrinology Conference, St. Mary's Mercy Medical Center, Grand Rapids, MI, November, 2004.

Personal Digital Assistants in Optometric Care - Is this technology right for you? presented to the 36th Annual Contact Lens and Primary Care Seminar, Lansing, MI, October, 2004.

Faculty Facilitator for the Opening of School Convocation. Ferris State University, August 2004.

Michigan Department of Community Health - Vision Technician Workshop, Two hour presentation and case discussion, Grand Rapids, MI, August 2004.

Diabetic Eye Care In Grand Rapids - A Public Health Perspective. presented to the West Michigan Optometric Association, Grand Rapids, MI, May 2004.

Rigid Gas Permeable Lens Institute Workshop - Panelist and Fitting Instructor, Michigan College of Optometry, March 2004.

Aviation Vision Panelist for the Great Lakes Aviation Conference Medical Panel, Lansing, MI, February, 2004

MCO Student Grand Rounds - Pseudoexfoliation, Corneal Verticillata, & Posterior Capsule Pacification. presented to the West Michigan Optometric Association, January 2004.

Eye Care Initiatives In Michigan, Services for Struggling Students. presented to the White Cloud Elementary School In-Service, White Cloud, MI, December 2003.

Care of Diabetic Eye Disease. presented to the Center for Diabetes and Endocrinology, St. Mary's Hospital, Grand Rapids, MI, November 2003.

Providing Optometric Care for Infants Through School-aged Children. presented at the Harris County Optometric Society, Houston, TX, October 2003.

CooperVision Toric Workshop - Panelist and Fitting Instructor, Illinois College of Optometry, October 2003.

Eye Care Initiatives In Michigan, How Will They Effect Schools? presented at the Michigan Reading Association Annual Convention, Grand Rapids, MI, March 2003.

MCO Student Grand Rounds - Blow-out Fracture, Leukemic Retinopathy, Retinitis Pigmentosa. presented to the West Michigan Optometric Association, January 2003.

CooperVision Toric Workshop - Panelist and Fitting Instructor, Illinois College of Optometry, October 2002.

Pediatric Update: Four hours of CE including, Infant through School-aged Exams, New Instruments and Procedures, Non-Commitant Ocular Deviations, the Amblyopia Treatment Study and Other Child Eye Care Issues in the Press. UHCO CE In the Mountains, Ruidoso, NM, October 2002.

Michigan Department of Community Health - Vision Technician Workshop, MOA and MDCH Roles in Improving Children's Eye Care, Grand Rapids, MI, August 2002.

CIBA CL Educators Meeting - Patient Perceptions of 30-Day Continuous Wear, April 2002

MCO Student Grand Rounds - Central Serous Choroidopathy, Staphyloma, Congenital Cataract. presented to the West Michigan Optometric Association, January 2002

Using WebCT to Enhance Optometric Education. presented to the Association of Schools and Colleges of Optometry, Informatics Special Interest Group, December 2001.

Clinical Faculty Perspective of the Patient Care Evaluation Model. presented to the Optometric Education Symposium, "Implementation of Patient Care In the Faculty Review Process: Breaking the Traditional Triad". American Academy of Optometry Annual Meeting, December 2001.

Role of Vision In Reading. Three hours of guest lecture in EDUC 420, Teaching Reading In Elementary Schools. FSU College of Education, Fall 2001.

Computer Vision Syndrome. presented at the West Michigan Optometric Association monthly meeting. Grand Rapids, MI, April 2001.

Gadgets and Gizmos - Hand-held Technology for the clinician. presented at the Excellence, Leadership and Innovation in Optometric Education Conference. Big Rapids, MI Spring 2001.

MCO Student Grand Rounds – Metastatic Carcinoma of the Eye, Basal Cell Carcinoma of the Eye Lid, Acanthamoeba Keratitis presented to the West Michigan Optometric Association, January 2001.

Caring for the Computer User in the Optometric Office. presented at the MCO Lansing Educational Seminar. Lansing, Michigan, Summer 2000.

Caring for the Computer User in the Optometric Office. presented at the 2000 Harbor Optical Educational Seminar. Crystal Mountain, Michigan, Spring 2000.

D. Grants -

Trinity Health Call To Care Fund. \$430,000. Key Project Coordinator for Saint Mary's HealthLink - TeleHealth Retinopathy Evaluation And Treatment – TREAT Diabetes program. 2008-present.

MCO Didactic Instruction Equipment Proposal. \$25,000. Co-Developer of Integrated, Multi-station Computerized Vision Science Laboratory. 2007.

MCO Clinical Care Equipment Proposal. \$43,350. Co-Developer of Electrodiagnostics Service. 2006.

MCO Clinical Instruction Equipment Proposal. \$2,500. Co-Developer of Video Biomicroscope Systems. 2005.

FERRIS STATE UNIVERSITY, Faculty Research Grant. \$6500. Co-Developer of Classroom Performance System (CPS) for Interactive Learning. 2004

FERRIS STATE UNIVERSITY, Faculty Research Grant. \$2443. Use of Standardized Assessment of Visual Attention to Predict Motor Vehicle Operator Success In a Precision Driving Course. 2002.

CIBA Education Grant. \$3500. Patient Perceptions of 30-Day Continuous Wear (FSU). Sub-component of larger study Including Indiana University School of Optometry, and Northeastern State University College of Optometry. 2001

ASCO / CIBA Total Quality Education Grant. \$8300 (partially funded the \$12,000 budget). Co-developer of Excellence, Leadership and Innovation in Optometric Education Conference. This conference brought all Extern Rotation Directors, On-campus Faculty, and Fourth-year Optometry Students together to improve the educational opportunities of the fourth year curriculum. 2000.

Luxottica - Healthy Eyes Healthy People Grant. \$2000. Inter-professional educational forum on visual Impairment and driving. Co-author

Luxottica - Healthy Eyes Healthy People Grant. \$2000. Preventing diabetic retinopathy community education project. Co-author.

National Eye Institute, Healthy Vision 2010 Community Awards Grant. \$10,000. St. Mary's and Clinica Santa Maria project to improve delivery of diabetic eye care to Hispanic patients In Grand Rapids, contributing author.

National Eye Institute, Healthy Vision 2010 Community Awards Grant. \$10,000. Optometric Institute and Clinic of Detroit project to improve delivery of diabetic eye care to Inner City Detroit Patients, contributing author.

National Eye Institute, Healthy Vision 2010 Community Awards Grant. \$10,000. Cherry Street Health Services project to improve delivery of diabetic eye care to indigent patients in Grand Rapids, technical advisor.

Educational and Career Counseling Center (ECCC) – Strategies vision Screening to identify and treat vision problems in at risk University students. Contributing author.

Submitted a Federal Rural Health Care Grant for \$1,100,000 to establish the Michigan Institute for Vision in Infants and Children, co-author. Not funded.

UNIVERSITY OF HOUSTON

HOUSTON, TEXAS

Sep 1995 - Dec 1998, Assistant Professor, Tenure Tract

Jun 1992 -Sep 1995, Visiting Assistant Professor

Teaching

A. Clinical - Attending Faculty, Jun 1992-Dec. 1998

Developed Computer Workstation and Visual Performance Service. .

Clinical instruction and seminar presentation for third and fourth year optometry students in family practice adult, pediatrics, and contact lens clinic.

B. Didactic -

Lecture Instructor, Optometry 1300, Introduction to Health Professions, Spring 1995-98, Fall 1998.

Undergraduate course for pre-health professions students. Has companion website

and on-line reference text incorporated into the course.

Lecture Instructor, Optometry Elective Using Computer Vision Syndrome (CVS), Reading

Disabilities, and Sports Vision to improve practice competitiveness, Fall 1998.

Lecture Instructor, Optometry Elective Normal Variations of Ocular Anomalies, Summer 1998.

Lecture Instructor, Optometry International Optometry, Summer 1997.

Course Master, Optometry 5151, Pediatric Lab 1, Spring 1994-98.

Assessment of binocular vision anomalies and developmental disorders including; amblyopia, strabismus, comitancy, correspondence and learning difficulties for second year professional students.

Laboratory Instructor, Optometry 5151, Pediatric Lab 1, Spring 1993.

Optometry Elective Course, International Optometry, Summer 1996-97.

Optometry Elective Course, Special Problems in Clinical Optometry, Spring 1995 & 98.

Optometry Elective Course, The Role of Optometry in Reading Education, Spring & Summer 1994, 1995 Fall

Guest Lectures, Optometry 4291, Optometry 1, Preliminary Assessment Procedures, Fall 1993-97.

Guest Lectures, Optometry 6197, Rounds & Case Discussion, Spring 1995-97

Clinical decision making; reading disorders and computer workstation problems.

Guest Lectures, Optometry 6233, Ocular Pathology: A Case Approach, Spring 1996-97.

Management of ocular foreign bodies.

Guest Lectures, Optometry 6342, Caring for the Computer User in a

Primary Care Practice, Spring 1997-8.

Clinical Grand Rounds, Course grader, 1992-98.

C. Invited Lectures -

Caring for the Computer User in an Optometric Practice, American Optometric Student Association Annual Meeting, 1998.

Rigid Gas Permeable Contact Lens Fitting Workshop Facilitator, RGP Institute, 1996-98.

Tonometry and Slit-Lamp Fundus Evaluation Workshop Leader, University of Houston Concentrated Ocular Therapeutics Course, 1997.

Ocular Photography Workshop Leader, University of Houston Concentrated Ocular Therapeutics Course, 1996.

Caring for the Computer User in an Optometric Practice, Texas Optometric Association Annual Meeting, 1996.

Vision Safety in the Modern Office, Presentation to office workers of the Federal Reserve Bank - Houston Office, 1996.

Introduction to the Internet - How to set up and use a Web Page, Technology Series #2, University of Houston Continuing Education, 1996.

New Gadgets and Gizmos - Portable Equipment for the Optometry Office, Technology Series #3, University of Houston Continuing Education, 1996. The

Role of Optometry in Reading. Alamo Tri-Service Optometric Society,
Continuing Education for Armed Forces Optometrists. 1995.

Special Procedures Workshop II. University of Houston, Institute for Optometric
Practice, Certification Training for Optometric Assistants. 1994-95.

Emergent Literacy to Reading Fluency: Climbing the Developmental Ladder,
Ellerbrock lecture, 1994.

Chief Complaint: Dyslexia, Now What Do I Do?, University of Alabama,
Birmingham, School of Optometry, 1994.

Clinical Assessment of the Pediatric Patient. Third Annual National Symposium of
Optometry, Juarez, Mexico, 1993.

Special Vision Requirements of Athletes. University of Houston, Sports Medicine
Trainer Workshop, 1993.

Computer Work Station Stress. Presentation to the faculty University of Houston,
College of Optometry, 1993.

FERRIS STATE UNIVERSITY

BIG RAPIDS, MICHIGAN

Jan 1992-Jun 1992, Associate Instructor

Clinical instruction and seminar presentation for third and fourth year optometry
students in pediatric and developmental vision clinics.

UNIVERSITY OF CALIFORNIA

BERKELEY, CALIFORNIA

Jun 1990-May 1991, Reading Specialist Intern

Shared in reading resource room responsibilities with Janet Fagre, Director.

Participated in parent and IEP conferences.

Responsible for assessment and treatment of three reading disabled students for
one school year.

Aug 1991-Sep 1991, Teaching Assistant

Laboratory instruction in pediatrics and binocular vision for third year optometry
students.

Aug 1989-May 1990, Associate Instructor

Clinical instruction and seminar presentation for third year optometry students in primary care clinic and led discussion and case review.

PUBLICATIONS

Diabetes Nurse Education, Eddie Stein, OD, Mark Swan, OD, et al

McVeigh F., Swan M., Ballinger R., Cavallerno J., Gross P. Health Information Technology Resources for Optometrists. *Optometry* 79(8), 480-3, 2008

Swan M. President's View. *The Michigan Optometrist* 88(3), 4, May-Jun. 2008

Swan M. President's View. *The Michigan Optometrist* 88(2), 4, Mar-Apr. 2008

Swan M. President's View. *The Michigan Optometrist* 88(1), 4, Jan.-Feb. 2008

Swan M. President's View. *The Michigan Optometrist* 87(6), 4, Nov.-Dec. 2007

Swan M. Giving Back: Improving Infant's Eyesight. *Detroit Free Press*, 7F, Nov. 4, 2007.

Swan M. Seeking a Clearer Vision. *Grand Rapids Business Journal* 2(4), 34, 38, Oct.-Dec. 2007.

Swan M. Combating Rejected Insurance Claims. *The Michigan Optometrist* 87(5), 23-24, Sep.-Oct. 2007

Swan M. President's View. *The Michigan Optometrist* 87(5), 4, Sep.-Oct. 2007

Castells D., et. al. Informatics Experts Discuss How the Field Has Changed in the Past 20 Years and Predict Innovations for the Next 20 Years. *Optometric Education* 33 (1), 10-11, Fall 2007.

Swan M. MOA Presidential Acceptance Remarks. *The Michigan Optometrist* 86(4), 3-5, Jul.-Aug. 2007

Swan M. AOA's InfantSEE Program Update: MOA Members Encouraged to Register Immediately. *The Michigan Optometrist* 84(1), 8-11, January 2005.

Swan M. Third Party Pocket Reference Card. Produced Independently and distributed through AOSA to all 3rd year optometry students, 1999, 2002, 2004.

Peterson-Klein N, Vance JR, Swan M. MCO Asynchronous Learning Network - A Distance Learning Network for Fourth Year Externs. *Optometric Education*, 29(2) 50-55, Winter 2004.

Swan M. War on Amblyopia. *The Michigan Optometrist* 83(9), 3-5, September 2004.

Contributing author for the Lions Club GR Press Public Service Segment Sunday May 23, 2004

Wallace MG, Swan M. Children's Vision Care In Michigan. *The Michigan Optometrist* 82(10), 3-4, October 2003.

Seim T, Swan M. Michigan Optometrists Work with the MDCH to Better Understand Each Other's Role In Children's Eye Care. *The Michigan Optometrist* 82(3), 3-5, March 2003

Swan M., Walling P. Management of an Intra-Stromal Metallic Foreign Body Resulting From a Firearm Mishap. *Optometry & Vision Science* 78(12s), 180, 2001.

Peterson-Klein N., Swan M., Vance JR. A Distance Learning Network for Fourth Year Externs. *Optometry & Vision Science* 78(12s), 262, 2001.

Swan M, Peek K, Shah K. Prehealth Professions Resource Guide. On-Line textbook, <http://www.opt.uh.edu/prehealth>, 1998.

Swan M., Richmeier K. Accommodation to Text and VDT displays. *Optometry & Vision Science* 74(12s), 182, 1997.

Wickum S, Swan M. Familial Congenital Horner's Syndrome. *Optometry & Vision Science* 74(12s), 182, 1997.

Swan M, Emergent Literacy to Reading Mastery: Climbing the Developmental Ladder. *Practical Optometry* 6:5, 1995.

Dang A, Swan M, Manny RE. Sensation Induced by Topical Ocular Diagnostic Agents as a Function of Temperature. *Optometry & Vision Science* 70(12s), 167, 1993.

COMMUNITY

Kent County Board of Commissioners, Community Health Advisory Committee, 2009

Save Your Vision Month and Dr. Seuss Reading Awareness program. MCO – COEHS – Tot's Place collaboration, March 2004 – 2006.

Michigan Department of Community Health. Technical Advisor to the Vision Screening Program.

Michigan Commission on Law Enforcement Standards - Vision Consultant 2002 – present

West Michigan Vision Coalition - Lions Club, WMOA and MCO collaboration to address unmet eye and vision care needs In metropolitan Grand Rapids.

In collaboration with Michigan Association of Health Plans, St. Mary's Mercy Medical Center and Advantage Health developed the Diabetic Eye Disease Reporting Form.

Vision Screenings – Organized and/or participated in community vision care projects on behalf of MCO.

FSU Strategies Vision Screening and Eye Care program 2003- present

Big Rapids Diabetes Support Group – National Diabetes Month, 1999 – 2001.

Traverse City Migrant Farmworkers Project, every summer 2001 – present.

VSP, Kids Get Focused at Whitecaps Baseball game – Grand Rapids, summer 2002.

WMOA/MCO/CSHS/GR Lions Diabetes Awareness / Screening Project, semi-annual
1999 – 2004.

Greenville Public Schools pre-school screening, 2003

Rodney Public Schools Elementary School screenings

UNIVERSITY

University Naming Committee, 2007 – present.

Educational and Career Counseling Center (ECCC) – Strategies Vision Screenings,
2003 – present.

Faculty Research Committee, 2001 – 2002

Health Futures Committee, 1999

COLLEGE

MCO Advisory Board

MCO Executive Committee

New Faculty Advisor for Dr. Raghunandan and Dr. Kenyon

Faculty Council Vice-Chair

St. Mary's Mercy Medical Center Credentialing and Privileging Revision Committee

Clinic Advisory Council – Chief of Contact Lens, Pediatrics, and St. Mary's Clinics

Co-Chair 2004-2005

MCO Dean Search Committee

Faculty Recruitment Committee - Chair

Faculty Advisor - Second Professional Year Class

Michigan College of Optometry Web Page Developer

Academic Program Review Panel, Chair

Accreditation Council on Optometric Education Self Study Project Team, Chair

Library & Technology Utilization Committee

Clinic Proficiency Committee – past member

PROFESSIONAL ORGANIZATIONS

Accreditation Council on Optometric Education - Accreditation Site Visits

Consultant, 2004

PUCO Accreditation Site Visit Team, 2007.

Professional Program Manual Revision Team, 2007 - present

ALCON Laboratories, Inc. - Speakers Bureau

American Optometric Association - AOSA, sustaining member

Research & Information Executive Committee, 2009-present

Optometry 2020 Summit Participant - sessions 1 & 2, 2006

Health Information Technology and Telemedicine Project Team, 2005 - present

Aviation Committee Member, 2002 - 2006

Faculty Relations Committee, member, 1998-2002

InfantSEE State Leader, 2004 - 2006

InfantSEE Speakers Bureau Faculty, 2004 - present

American Public Health Association – Vision Care Section member, 2006 - present

Association of Contact Lens Educators – Co-host of the 2005 Annual Educator's Workshop.

Association of Schools and Colleges of Optometry –

Government Affairs Committee, 2009 - present

Binocular Vision Special Interest Group

Informatics Special Interest Group, Web page developer

International Reading Association

Journal of Optometric Education

Editorial Review Board, 1999 - present

Michigan Optometric Association - MOSA, sustaining member

Editor, Michigan Optometrist, 2009 - present

Immediate Past-President, Chair of MOA-PAC and Industry Relations committee
2008 - 2009

President, 2007 - 2008

Michigan Optometrist Editorial Review Board, 2007 – present

MOA Public Relations Spokesperson for Back to School Eye Examinations, Sep 2007

MOA Public Relations Spokesperson for Decorative Contact Lenses for Halloween,
Oct 2007

President Elect, Director of Administrative Affairs Division, 2005-2006

Member of MI Eyes on Diabetes, A Community Based Collaborative and the Michigan Diabetes Strategic Plan state-wide projects with MDCH, Lions, Michigan Ophthalmological Society, MOA, & Michigan Diabetes Outreach Networks to raise funds and develop projects.

Vice President, Director of State Affairs Division, 2004 - 2005

Secretary / Treasurer, Director of Administration Division, 2004 - 2005

Board of Trustees, Director of the Public Health & Education Division, August 2002 –
2004

Non-Dues Revenue and Industry Relations Committee, 2006-2007

Strategic Planning Coordinator/Moderator, 2006, 2007

Delegate to the AOA Congress, 2001 – 2007

Environmental Vision Committee, Chair, 2001

Children's Eye Exam Initiative Taskforce, Chair, 2001-present

Michigan Public Health Association – Vision Care Section member 2005 - present

Optometry – Journal of the AOA article reviewer 2007 – present

Review of Optometry article reviewer, 2007 - present

SOLA Optical USA - Speaker's Bureau

Volunteer Optometric Services to Humanity

West Michigan Optometric Association

President, 2000-2002

Organize MCO Student and Faculty participation in annual Legislative Breakfast,
2000 - present

West Michigan Vision Coalition, Founding member, 2004-present

PUBLIC APPEARANCES

Florida Southern College, Health Wellness 101 journal, quoted in Women's Health Guide:

<http://www.flsouthern.edu/wellness/healthycampuscoalition/studenthealth101.htm>, May 2011.

Presented testimony to the MI Senate Appropriations Subcommittee on Community Health, Lansing, MI, 2011.

Presented testimony to the Joint Committee on Capital Outlay, Michigan Legislature, Lansing, MI, 2008.

Comcast News Makers television interview discussing the importance of healthy vision and the mission and vision of the Michigan Optometric Association. The Comcast Newsmakers program runs on the CNN Headline News Channel for Comcast cable subscribers in the greater Lansing and Southeast Michigan viewing areas.

FSU Bulldog Television community access channel 22 – *Beyond the Campus* – Interviewed as part of a panel discussing illiteracy and reading dysfunction. The MCO – COEHS clinical collaboration providing reading diagnosis and care was also highlighted.

Prevention Magazine interview for an article discussing how to avoid eyestrain related to home lighting and providing recommendations on the best home lighting to use to minimize vision damage. 2008.

Women's Health Magazine interview discussing vision issues that run in families and those that affect mothers and daughters as they age. May 2008.

Grand Rapids Press, May 23, 2004. Diabetes: The No.1 cause of preventable blindness in U.S. provided background info and quotes for Lions Focus on Vision

special section.

AWARDS & RECOGNITION

Ferris State University – Distinguished Alumni, 2010

Michigan Optometric Association – Optometrist of the Year, 2009

Grand Rapids Lions Club – Visionary of the Year, 2008

Michigan Optometric Association – Distinguished Service Award, 2008

Michigan Optometric Association – Key Person, 2003

Michigan Association of Governing Boards – Outstanding College Student of Michigan, 1988

Omicron Delta Kappa – Outstanding Service to the College as a Student, 1988

Michigan College of Optometry – Dr. Robert VanHoven Memorial Award for Professionalism, 1987

VITAE

J. Randall Vance, O.D., M.S., F.A.A.O.

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Michigan College of Optometry

Ferris State University

Big Rapids, MI 49307

Voice: (231) 591-2092

Fax: (231) 591-2394

E-mail: vancej@ferris.edu

COLLEGES ATTENDED:

University of Michigan, School of Literature, Arts & Sciences 1971-1973

University of Toledo 1973 (summer)

The Ohio State University, College of Optometry 1973-1977

The Ohio State University, The Graduate School 1975-1977

DEGREES:

Doctor of Optometry, The Ohio State University, 1977

Master of Science, The Ohio State University, 1977

LICENSES TO PRACTICE OPTOMETRY:

Michigan, #2609, September 1977, DPA/TPA certified

Ohio, #3314, July 1977, currently inactive

PROFESSIONAL ORGANIZATION MEMBERSHIPS:

Michigan Optometric Association

American Optometric Association

American Academy of Optometry, fellow

Blue text signifies relevant information and activities since merit award in 2003.

AWARDS AND DISTINCTIONS:

Epsilon Psi Epsilon Junior Merit Award, OSU College of Optometry, 1976

Who's Who Among Students in American Colleges and Universities, 1975 & 1976

Ohio Optometric Association Outstanding Senior Student Award, 1977

Bing Memorial Award, OSU College of Optometry, 1977

Outstanding Young Men of America, 1985

Michigan Optometric Association Educator of the Year, 1995-96, by vote of the FSU
optometry program student body

Ferris State University Distinguished Teacher Award, 1997

Sylvania (OH) Schools Distinguished Alumni Hall of Fame inductee, March 2000, by
the Sylvania Schools Academic Excellence Foundation

Who's Who Among America's Teachers, 7th edition, 2002

Academic Excellence Award from Vice President for Academic Affairs, 2004

MOSA First Year Class Outstanding Professor Award, 2010

MILITARY SERVICE:

Optometry Officer, Assistant Chief, Optometry Section, U.S. Army Hospital, Ft.
Campbell, KY 7/1977-7/1979

ACADEMIC APPOINTMENTS:

Ferris State University, College of Optometry

Assistant Professor, 7/1979

Assistant Director of Clinics, 1982-1984

Director of Clinics, 1984-1990

Associate Professor, 1988

Professor, 1998-present

CURRENT TEACHING RESPONSIBILITIES:

OPTM 534, Ocular Anatomy & Physiology, Lecturer, 50% with John Pole

OPTM 543, Optometric Procedures 1, Lab Coordinator and Lab Instructor

OPTM 644, Optometric Procedures 2, Lecturer, Lab Coordinator and Lab Instructor

OPTM 636, Anterior Segment Disease, Lab Coordinator and Lab Instructor

OPTM 734, Glaucoma, Lecturer on Visual Fields topics

OPTM 736, Posterior Segment Disease, Lab Instructor

OPTM 811-812-813, Web Seminar 1-2-3, Course developer and Instructor

COMMITTEE APPOINTMENTS:

College of Optometry

Student Affairs Committee: now covers responsibilities of former Academic Review Committee and Scholarship and Awards Committee

Tenure Committee for Dr. James Nash

Facilities Committee, new building design development

University

FerrisConnect Implementation Project Team, served on the two-year project to transition from WebCT Campus Edition to Blackboard Vista, member of Training/Support sub-committee, and served as faculty trainer.

E-learning Specialist Search Committee, served on the search and interview committee to hire for a newly created "E-learning Specialist" position in Information Technology Services to assist the E-Learning Systems Administrator, Spring 2009

FerrisConnect Advisory Board, serving to evaluate all current instructional technology applications as well as new products, and make recommendations for upgrades, additions or other changes, 2008-present.

Graduate Education Task Force, appointed by Provost to assess future direction of graduate education at FSU, 2010-present.

University Graduate and Professional Council, Academic Senate Committee which consults on and makes recommendations for graduate or professional program curriculum changes, and graduate or professional degree program changes; currently serving another three-year term.

Blackboard 9.1 pilot faculty member, volunteering to run a Spring, 2011 course in the Blackboard Learn 9.1 platform and evaluate it as a potential replacement for the current course management system product, Blackboard Vista 8.0.

Online Instructor Certification Review Team, advise FSU faculty applicants, evaluate their application portfolios, and make recommendations for approval of certification level, since inception in 2007.

Profession

American Academy of Optometry, MCO Faculty Liaison, past appointee

National Board of Examiners in Optometry, Examination Development Committee, Optics/Refractive, Oculomotor and Sensory-Integrative Conditions, 2003-2008
National Board of Examiners in Optometry, Applied Basic Sciences examination item writer/reviewer for Refractive/Oculomotor Conditions content, 2008
National Board of Examiners in Optometry, Clinical Sciences Examination Council, 2005-2008
National Board of Examiners in Optometry, Examination Restructure Task Force, April, 2006
National Board of Examiners in Optometry, Patient Assessment and Management Examination Council, 2009-present

PUBLICATIONS AND PRESENTATIONS:

"Central Visual Field Contributions to the Visual-Evoked Response", American Journal of Optometry and Physiological Optics, Vol. 57, no.4, pp. 197-204, Vance, J.R. and Jones, R.

"Rx Design for the Anisometric Patient", presented at Ferris State College of Optometry Alumni continuing education program, April 1981; Armed Forces Optometric Society continuing education program at American Optometric Association Congress, Boston, MA, June 1983; Kentucky Optometric Association Annual Meeting, Louisville, KY, April 1986.

Referral Writing Manual, reference workbook for the production of quality patient care referral communication, R. Vance, R. Ferguson, M. Cron.

Panel member, "Innovations in Optometric Education", Optometric Education section symposium at American Academy of Optometry Annual Meeting, Houston, TX, December 1983.

"Off-Campus Program Information Management with PC-File+", presented at Office of Academic Computing, Ferris State University, November 1987.

Panel member, "Clinical Skills Evaluation", Optometric Education section symposium, American Academy of Optometry Annual Meeting, Denver, CO December 1987.

"Evaluating Students' Clinical Skills: Identification, Communication, and Remediation", Journal of Optometric Education, Vol. 13, no. 4, pp. 128-130, Vance, J.R. and Uniacke, N.

"Automated Perimetry", Optometry 769 Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, July, August, 1989.

"Tonometry and Basic Slit Lamp Examination", Optometry 769 Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, August 1990.

"Photo and Video Documentation", Optometry 769 Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, August 1990.

"Automated Perimetry", Optometry 769 Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, August 1990.

"Vision and Eye Health Screening Review", FSU Nursing Center Faculty In Service program, October 1990.

"The Role of Visual Fields in Glaucoma Detection and Management", FSU Continuing Education course in Therapy & Management of Ocular Disease, Big Rapids, MI May 1995, Lansing, MI July 1995, Farmington Hills, MI February 1996, Grand Rapids, MI March 1998, Farmington Hills, MI April 1998, January 1999.

"Binocular Indirect Ophthalmoscopy", Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, May 1995, August 1995, May 1996, January 1999, May 1999, March 2002.

"Posterior Segment Biomicroscopy", Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease , August 1995.

"Corneal Topography", Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, August 1995.

"Visual Field Interpretation with Dicon FieldView®", MCO faculty development seminar, February 1996.

"Visual Fields Literature Abstract Reviews", The Michigan Optometrist, Journal of the Michigan Optometric Association, Vol. 75, No. 1, January, 1996.

"Automated Perimetry", Clinical Workshops, FSU Continuing Education course in Therapy & Management of Ocular Disease, May 1995, August 1995, May 1996, May 1998, May 1999.

"So What's New from Humphrey Instruments?", MCO faculty development seminar, November 1996.

Course Coordinator, Clinical Workshops, for 8 offerings of the FSU Continuing Education course in Therapy & Management of Ocular Disease, May 1995, August 1995, May 1996, May 1998, January-February, 1999.

"Emerging Technologies for Glaucoma Detection & Management", Part I, MCO faculty development seminar, February 1997.

"Emerging Technologies for Glaucoma Detection & Management" Part II, MCO faculty development seminar, November 1997.

"Understanding Our Students - Teaching & Advising at FSU", panel member for FSU New Faculty Orientation Program, August 1998.

Course Coordinator, Clinical Workshops, FSU Continuing Education Course in Diagnostic Ocular Pharmacology, May 1999.

"Pupillary Dilation", FSU Continuing Education Course in Diagnostic Ocular Pharmacology, May 1999, March, 2002.

"On-line Assessment of Instruction with WebCT", presentation to FSU Student Assessment of Instruction Committee, describing the use of web-based survey for collecting course evaluation and assessment of instruction data, July 1999. This presentation contributed to the adoption of an on-line option for administering the Student Assessment of Instruction (SAI) instrument for post-tenure review at FSU.

"On-line Course Delivery with WebCT", demonstration of on-line course tools for FSU Center for Teaching Learning & Faculty Development seminar, September 1999.

"Getting Started On-Line", "On-line Testing", "On-line Communication and Presentation Tools", FSU Faculty Winter Institute instructor, January 2000.

"Clinical Interpretation of Visual Fields Using Statpac2", and "Visual Field-Related Aspects of Glaucoma Detection & Management", Michigan Chapter, American Academy of Optometry Spring Educational, East Lansing MI, April 2000.

"New Technologies for Glaucoma Detection & Management", MCO Continuing Education Program, Lansing, MI, June 2000.

"Using WebCT For Assessment", FSU Faculty Week presentation, August, 2000.

"Putting Tests in WebCT: Building Your Item Bank", lead facilitator for Faculty Winter Institute sponsored by Center for Teaching, Learning & Faculty Development, January 2-3, 2001.

"Meet the FDT", MCO faculty development seminar, January 23&25, 2001.

"Testing and Training Observation Skills in Funduscopy: A New Twist on the Class Album", MCO faculty development seminar, with Scott D. McDowell, January 30, 2001.

"MCO ALN Project: Using WebCT Course Management Software", hands-on computer workshop, MCO Conference on Excellence, Leadership and Innovation in Optometric Education, March 24, 2001.

"MCO ALN Project: Using WebCT Course Management Software", hands-on computer workshop, new 4th year student orientation, April 27, 2001, April 19 & 26, 2002, April 25 & May 2, 2003.

"WebCT Overview and Assessment Tools", WebCT Institute, FSU Center for Teaching, Learning & Faculty Development, May 8-10, 2001, June 19-21, 2001, August 14-16, 2001.

"Sequential Criterion-based Online Self-Assessment", MCO faculty development seminar, June 12, 2001.

"Introduction to WebCT Course Management System", Ferris Summer University presentation, July 30-31, 2001.

"Transform Teaching & Learning with Technology", FSU Faculty Kick-off Week, Faculty Development Day, August 22, 2001.

"Preparing for Your First Semester with WebCT", Center for Teaching, Learning & Faculty Development Seminar, 8 sessions, September-November, 2001, January-April, May-June, July-August, September-November, 2002. Faculty members representing all colleges on campus have attended.

"Improving Visual Recognition Skills with a Digital Image Bank", Lilly-North Conference on College & University Teaching, with Scott D. McDowell, Big Rapids, MI, September, 2001.

"Using Multimedia in WebCT", Center for Teaching, Learning & Faculty Development Seminar, 2 sessions, September-October, 2001.

"Improving Visual Recognition Skills with a Digital Image Bank – the medium makes a difference", Association for Educational Communications & Technology Conference, Atlanta, GA, November, 2001.

"Improving Visual Recognition Skills with a Digital Image Bank – the medium makes a difference", chosen for publication in Association for Educational Communication &

Technology Proceedings of Selected Research & Development Paper Presentations,
November, 2001.

"End of Semester Rituals", Center for Teaching, Learning & Faculty Development
Seminar on WebCT course maintenance, November, 2001.

"A Distance Learning Network for 4th Year Externs", poster, co-authors Mark Swan,
O.D., M.Ed. and Nancy Peterson-Klein, O.D., American Academy of Optometry Annual
Meeting, Philadelphia, PA, December, 2001.

"Introduction to WebCT", Center for Teaching, Learning & Faculty Development
Seminar for College of Pharmacy faculty, January, 2002.

"Preparing for Your First Semester with WebCT", special 5-session training agenda
planned and conducted for College of Pharmacy faculty to assist with implementation
of 3rd professional year of Pharm.D. curriculum, Applied Technology Center, FSU-
Grand Rapids, April-May, 2002.

"Student Management Module: Beyond the Basics", Center for Teaching, Learning &
Faculty Development Seminar, February, May, July, 2002.

"Binocular Indirect Ophthalmoscopy", 4th World Conference on Optometric Education
Clinical Workshops, 3 hands-on workshop sessions, Atlanta, GA, February, 2002. Also,
the handout materials were published on CD-ROM by World Council of Optometry.

"A Distance Learning Network for 4th Year Externs", poster, co-authors Mark Swan,
O.D., M.Ed. and Nancy Peterson-Klein, O.D., 4th World Conference on Optometric
Education, Atlanta, GA, February, 2002.

“Can We Talk?: Enhancing Teaching & Learning with WebCT Communication Tools”, Center for Teaching, Learning & Faculty Development Seminar, February, 2002.

“Add Interactivity with Content Module Page Links”, Center for Teaching, Learning & Faculty Development Seminar, March, 2002.

“Visual Field Interpretation/Visual Pathway Disorders”, continuing education presentation for Michigan Optometric Association Spring Educational Seminar, Kalamazoo, MI, May, 2002. Presentation featured live web demonstration of my WebCT courseware used at MCO for visual field class instruction and 4th year virtual grand rounds.

“WebCT Quiz/Survey Tool”, Center for Teaching, Learning & Faculty Development Seminar, June, 2002.

“WebCT Content Module”, Center for Teaching, Learning & Faculty Development Seminar, June, 2002.

“Sequential, Criterion-based, Online Self-assessment”, poster, co-author James R. Miller, O.D., Second Annual Lilly-North Conference on College & University Teaching, Big Rapids, MI, September, 2002.

“Re-engineering Instruction and Instructors: what are the obstacles?”, presented at American Academy of Optometry Optometric Education Section Symposium, Dallas, TX, December 2003

“Online Pedagogy: How is it Different?”, presented at FSU Faculty Development Day, August 2004

“Getting up to Speed with WebCT”, faculty workshop presentation, January 4-6, 2005.

“Enhance Optometric Residents’ Scholarly Activity Through E-Learning”, co-authored and presented with Nancy Peterson-Klein, O.D., at American Academy of Optometry Optometric Education Section Symposium, Tampa, FL, December 2004

“Clinical Decisions in the Information Age”, presented at American Academy of Optometry Optometric Education Section Symposium, Tampa, FL, December 2004

“A Program for Online Instructor Certification”, poster presentation at Lilly-North Conference, Traverse City, MI, September 2008

“Engaging Students In and Out of the Classroom”, derivatives presented at AOA Optometric Educators Exchange, June 2007, ASCO Clinic Managers/Directors SIG meeting in Big Rapids, September 2008, MCO Faculty Development Seminar, Spring 2008

“Tegrity Campus 2.0”, presented at MCO Faculty Development Seminar, February 2010 , and FSU New Faculty Development Day, August 2010

“FerrisConnect Assessment Tool”, authored and conducted a workshop for Faculty Center for Teaching & Learning, Spring semester 2010

“FerrisConnect Gradebook”, authored and conducted a workshop for Faculty Center for Teaching & Learning, Spring semester 2010

“FerrisConnect Refresher”, help session hours offered annually during Fall semester faculty week for Faculty Center for Teaching & Learning

“MCO PAM Case Authoring Project”, presented in MCO Faculty Development Seminar, April 2010, and to NBEO staff at PAM Examination Council meeting, August 2010.

“The World of Possibilities through Online Learning”; invited by Associate Provost to present to FSU’s Doctorate in Community College Leadership (Ed.D.) faculty workshop, January 21, 2011.

Preparation for National Credentialing Examination using Blackboard and StudyMate Class, 5th Annual Teaching, Learning and Technology Showcase, Grand Rapids Community College, March, 2011

CONSULTING:

WebCT Visiting Champion: consultant to WebCT, Inc., involvement in beta product evaluation, as well as presentation and demonstration of WebCT applications to prospective client institutions. At the invitation of WebCT, I assisted in a presentation to representatives of a consortium of Illinois institutions June, 2000, re: use of web-based courseware to improve teaching & learning, demonstrated my WebCT courses, and discussed institutional experience with adopting, supporting and using web-based course management software.

WebCT Senior Certified Trainer: completed Phase 1 of the program to be credentialed by WebCT, Inc. as a certified trainer, September, 2000. Completed Phase 2, WebCT's "Train-the Trainer" workshop, at University of Manitoba, December 11-12, 2000. Phase 3 video training evaluation submitted April, 2001. Certified Trainer status granted June, 2001. First of only two FSU faculty members to complete this.

WebCT Training Coordinator: served the Division of Academic Affairs August 2001 – December 2002 providing training events planning, authoring, staffing, and course facilitation for the Center for Teaching, Learning & Faculty Development; established and coordinated the FSU WebCT Training Group.

Interim WebCT Administrator: served the Division of Academic Affairs, Center for Teaching, Learning & Faculty Development as Interim WebCT Administrator, August 19, 2002 to September 19, 2002. Provided administrator support functions including new course creation requests, new user ID creation, troubleshooting course tool or content problems for faculty, password or access problems, answering any faculty and student questions on WebCT use. A total of 231 inquiries were logged and handled during that period with a range of 1-60 minutes spent per inquiry.

GRANTS & PROJECTS:

Binocular Indirect Ophthalmoscopy: Courseware for Eyecare Professionals, authored and co-produced a CD-ROM multi-media training program. I served as the subject matter/content expert, authored the written materials, and coordinated the set up and collection of graphic, photographic and video assets used in the production. The program is applicable for both undergraduate and post-graduate continuing education, and demonstrates the capabilities of FSU departments to cooperatively design, author, produce and distribute such programs. Published in January, 2002, it was debuted during three clinical workshop sessions at the 4th World Conference on Optometric Education in Atlanta, Georgia, February, 2002.

"Enhancing Posterior Pole Observation Skills", a project to assess and train critical observation skills for examining the posterior pole of the human eye. A digital image collection obtained with the Helioasis Digivid 2000® is used to 1) pre-test the observation skills of first year optometry students prior to ophthalmoscopy training via an on-line delivered, timed quiz, matching the on-screen images to a printed catalog of potential matches, 2) enhance the development of observational skills and appreciation of anatomical variants while training with fundus examination instrumentation by using a catalog of unidentified classmate

retinal photographs. Students attempt to identify the printed images by comparison to the direct observations of their classmates' eyes, and additionally by comparison of print images to web-delivered images on screen, 3) following the conclusion of training activities for the term, observational skills are post-tested via another on-line delivered, timed matching test with a different set of test images. Performance statistics are compared pre- and post-testing. A complete set of class members' fundus photos has been collected, catalogued, printed, and published in the password-protected WebCT course for each entering class beginning with the Class of 2004. The process has been completed three consecutive years. Preliminary results were presented at Lilly-North Conference on College & University Teaching, September 2001 in Big Rapids, and further results were presented at the Association for Educational Communication & Technology annual meeting, November, 2001 in Atlanta, GA. Continued through and including the Class of 2013.

VSP Collaborative Grant with Pacific University and State University of New York: "Virtual Grand Rounds". As a result of our early Asynchronous Learning Network (ALN) experience, MCO received a VSP grant to conduct a web-based learning project in cooperation with Pacific University College of Optometry and SUNY College of Optometry. Evidence-based medicine techniques were utilized in small group on-line facilitated discussion and critique of patient cases. I built and managed an additional WebCT course site through which this project was conducted. An ALN project article authored by Dr.'s Peterson-Klein, Swan, and Vance was published in Optometric Education.

CAMPUS AND COMMUNITY ACTIVITIES:

First Impressions Volunteer, 1998, 1999, staffing campus information locations to assist arriving students with directions and triaging.

Cadillac Symphony Orchestra, Cadillac, MI, percussionist, 1995-2009.

United Church of Big Rapids, member 1979-present, served as Deacon, Elder, Vice-Chair and Chair of Governing Board, Church Clerk, Finance & Property Commission member, Christian Education Committee Treasurer, Congregational Group Life Committee, Bell Choir member, and Vocal Choir member. From its formation in June, 1994, through project completion in June 1997, I served as Chair of the "Building for the Future" committee, planning for and coordinating the design, capital campaign and construction phases of a major expansion and remodeling project.

Mecosta County General Hospital Health Fair, served on Core Planning Committee for 5 years, and as Site and Physical Arrangements Coordinator of the event for 3 of those years.

Volunteer for MCO Scholarship Fund Phone Campaign, March, 2002.

Volunteer for phone bank for WGVU-TV Pledge Drive, February 5th, 2003.

"FSU": Ferris State University

"MCO": Michigan College of Optometry

Last updated 7/7/2011

Philip E. Walling, O.D., F.A.A.O.

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Fax: 231.591.2394
E-mail: wallingp@ferris.edu

GRADUATE EDUCATION

University of Houston, College of Optometry, Houston, TX. Houston Concentrated Ocular Therapeutics Course. Certificate of Completion, August 1991.

University of Houston, College of Optometry, Houston, TX. Doctor of Optometry Degree, May 1989.

Western Michigan University, Graduate College of Education, Kalamazoo, MI. August 1984 - May 1985.

UNDERGRADUATE EDUCATION

Western Michigan University, Department of Biomedical Science, Kalamazoo, MI. Bachelor of Science Degree, 1984. Course of Study - Major: Biomedical Science; Minor: Chemistry

Kalamazoo Valley Community College, Department of Science, Kalamazoo, MI. Associate of Science Degree, 1982.

LICENSES AND CERTIFICATIONS

Refractive and Therapeutic Lasers for the Anterior Segment, Northeastern State University College of Optometry and The Laser Center Continuing Education Foundation, Certified, 1996.

Licensed Optometrist, State of Michigan, September 1989, Therapeutic Pharmaceutical Agents Certification, 1995.

Licensed Optometrist, State of Texas, August 1989, Therapeutic Pharmaceutical Agents Certification, 1992.

Treatment and Management of Ocular Disease, International Board of Examiners in Optometry, Certified 1989.

National Board of Examiners in Optometry (NBEO), Certified 1987, 1988.

APPOINTMENTS

Attending Optometrist, St. Mary's Medical Center Hospital, Grand Rapids, MI, 2002 to Present.

ACADEMIC APPOINTMENTS

Professor, Michigan College of Optometry, Ferris State University, Big Rapids, MI. 2004 to present.

Associate Professor, Michigan College of Optometry, Ferris State University, Big Rapids, MI. 1999 to 2004.

Assistant Professor, Michigan College of Optometry, Ferris State University, Big Rapids, MI. 1994 to 1999.

PROFESSIONAL EMPLOYMENT

Michigan College of Optometry, Ferris State University, Big Rapids, MI. August 1994 to present.

Didactic Responsibilities

- Coordinator, Ocular Disease Tract, 1995 to present.
- Coordinator, Optometric Grand Rounds presentations in OPTM 753, 1997 to present.
- Classroom teaching in the areas of the diagnosis, treatment and management of ocular disease and surgical optometric co-management of ocular disorders. Courses include:
 - OPTM 734 - Diagnosis and Treatment of Glaucoma (2 cr.)
 - OPTM 736 - Diagnosis and Treatment of Posterior Segment Disease (3 cr.)
 - OPTM 736 - Diagnosis and Treatment of Posterior Segment Disease Laboratory (1 cr.)
 - OPTM 738 - Injectable Pharmaceuticals Laboratory (1 cr.)
 - OPTM 735 - Laser and Refractive Surgery (1 cr.)
 - OPTM 737 - Advanced Ocular Disease & Surgical Management (2 cr.)
- Instructing students in laboratories concentrating on procedures in the detection and diagnosis of ocular disease, including injections, gonioscopy, binocular indirect ophthalmoscopy, scleral depression, A and B-scan ultrasonography, applanation tonometry, punctal occlusion, punctal dilation and irrigation, exophthalmometry, biomicroscopy, foreign body removal, potential acuity meter and laser interferometry.

Clinical Responsibilities

- Chief, Medical and Surgical Service, 1997 to present.
- Chief, Cornea and Contact Lens Service, 1995 to 2000.
- Clinical Attending Optometrist supervising optometry interns during clinical rotations in the following clinics:
 - Medical and Surgical Service: Pre and postoperative evaluation and management of all cataract, eyelid, glaucoma, plastics and photorefractive surgery patients.

Continuing Education Responsibilities

- Director, Continuing Education, 2000 to present.
 - Summer CE, Big Rapids, MI June, 2010
 - Educational Coordinator, 20 hour TPA Refresher Course, Windsor Laser Eye Institute, Canadian TPA course for licensure, Windsor, ON, October 2010
 - Summer CE, Big Rapids, MI June, 2009.
 - Educational Coordinator, 20 hour TPA Refresher Course, Windsor Laser Eye Institute, Canadian TPA course for licensure, Windsor, ON, June 2008 and June 2009.
 - Summer CE, Big Rapids, MI June, 2008.
 - SVS Vision Summer CE, Traverse City, MI July 2007. (Educational Sponsor)
 - Coordinator, "Summer CE", Big Rapids, MI June, 2007.
 - Harbour Town Optometric Golf Conference, Hilton Head, NC. May 2007 (Educational Sponsor)
 - Coordinator, "Summer CE", Big Rapids, MI June, 2006.
 - Harbour Town Optometric Golf Conference, Hilton Head, NC. May 2006 (Educational Sponsor)
 - Coordinator, "MCO 30th Birthday Bash & CE", Big Rapids, MI. May, 2005.
 - Coordinator, "Summer CE", June, 2005.
 - Coordinator, "Utilization Of Oral Medications", Troy, MI. September 2004.
 - Coordinator, "Utilization Of Oral Medications", Big Rapids, MI. November 2003.
 - Coordinator, "Utilization Of Oral Medications", Lansing, MI. June 2003.
 - Coordinator, "Diagnostic Pharmaceuticals Course", September, 2002.
 - Coordinator, "Summer Educational For Optometrists", Big Rapids, MI. September, 2001.
 - Coordinator, "Summer Educational", Lansing, MI. June 2000.
 - Coordinator, Optometric Therapeutic Pharmaceutical Agent Certification courses, Anterior Segment tract, Big Rapids, MI. 1995-97.
 - Coordinator, "Clinical Workshop", Big Rapids, MI. May, 1998.
 - Coordinator, Optometric Therapeutic Pharmaceutical Agent Certification Course, Big rapids, MI. January, 1999.
 - Coordinator, "Diagnostic Pharmaceuticals Course", May, 1999

Staff Optometrist, Associated Eye Institute, Monroe, MI. March 1994 to August 1994. Duties include the treatment and management of all preoperative and postoperative radial keratotomy and cataract patients, anterior segment disease and performing primary care examinations.

Staff Optometrist, Jan Winkelman, M.D., Ypsilanti, MI. February 1994 to August 1994. Ophthalmological practice with subspecialty in neuro-ophthalmology. Duties included the evaluation and fitting of contact lenses and determining the visual status of patients with traumatic brain injuries, stroke, and other neurological deficits.

Optometrist - Self Employed Private Practice, Town & Country Eyecare, Novi, MI. February 1994 to August 1994. Family practice with a subspecialty in contact lenses and sports vision related applications.

Staff Optometrist, University Health Service, University of Michigan, Ann Arbor, MI. 1993 to 1994. Duties include routine eye examinations, contact lenses, medical management of ocular disease, ocular emergency and urgency treatment.

Associate Clinical Professor, University Eye Institute, University of Houston, College of Optometry, Houston, TX. 1989 to 1993. Instructional duties to optometry students included:

- Seminars on the therapeutic treatment of anterior segment disease, appropriate referral of posterior segment disorders, contact lens design and options for bifocal, astigmatic, keratoconic and post-surgical applications.
- Supervision of patient encounters in the Specialty Contact Lens, Primary Care and Pediatric Clinics.
- Laboratory Instructor in diagnostic procedures including gonioscopy, binocular indirect ophthalmoscopy, scleral depression, computerized perimetry, applanation tonometry, punctal occlusion, punctal dilation and irrigation, exophthalmometry, biomicroscopy, foreign body removal and laser interferometry.
- Laboratory Instructor in medical laboratory procedures including urine analysis, blood glucose, bacterial cultures and identification, conjunctival smears and hematologic tests.
- Instructor of Clinical Ocular Anatomy and Physiology, Advanced Health Science Tract, Texas Optometry Career Opportunity Program. (April - May 1989)

Faculty, 1991 Houston Concentrated and Ocular Therapeutics Course, Institute for Optometric Practice, University of Houston, College of Optometry, Houston, TX. Duties included:

- Laboratory instruction to optometrists on topics of binocular indirect ophthalmoscopy, punctal dilation and occlusion, applanation tonometry, foreign body removal and bandage contact lenses.

Staff Optometrist, International Family Medical Center, Humble, TX. 1989 to 1993. Duties within a private multidisciplinary (medical, optometric and dental) setting include therapeutic treatment and management of ocular disease, pre- and post-operative care of refractive surgery, cataract, glaucoma, anterior and posterior segment disorders along with post-operative and sports related contact lens fitting. Specialties: contact lenses and sports vision.

Ophthalmological Assistant, Bellaire Eye Associates, Bellaire, TX. 1987 to 1989. Duties included evaluation of pre- and post-operative cataract, glaucoma and refractive surgery patients, A-scan ultrasonography, endothelial cell photography, Goldmann perimetry, assisting in minor surgery and post-operative contact lens fitting.

PUBLICATIONS

Walling P; *Injectable Pharmaceuticals: Interactive DVD*, Ferris State University, Big Rapids, MI. 2010.

Walling P; contributor to: *Review Questions for the NBEO Examination: Part II*, Butterworth Heinemann, St. Louis, MO. 2006.

Carter R, Walling P, Boothby L: Optic Pit; Poster, American Academy of Optometry, December 2005.

Lotoczky J, Pole J, Walling P: Posterior Keratoconus Previously Diagnosed as Amblyopia, American Academy of Optometry, December 2005.

Lotoczky J, Walling P, Peterson-Klein, N: Vitreomacular Traction Syndrome Discovered with Ocular Coherence Tomography; Poster, American Academy of Optometry, December 2005.

Lotoczky J, Pole J, Walling P: Posterior Keratoconus; Poster, American Academy of Optometry, December 2005.

Walling P, Peterson-Klein, N: Choroidal Rupture; Poster, American Academy of Optometry, December 2004.

Swan M, Walling P: Management of a Intrastromal Metallic Foreign Body Resulting from a Firearm Mishap; Poster, American Academy of Optometry, December 2002.

Denton D, Powers C, Walling P: Post-op Dry Eye Pestors LASIK Patient; Review of Optometry, March 2000.

Walling P: 5 Great Tips for Routine Retinal Examination; Optometry Today, March 1999.

Walling P: Updating Your Primary Care Protocols - Conjunctivitis; EyeQuest CE Campus, Optometry Today, December 1998.

PROFESSIONAL LECTURES

2010

"What's New in Topical Therapeutics" - Northern Ontario Optometry Conference 2010, Sault Ste. Marie, Ontario. September 2010.

"Glaucoma Update 2010" - Northern Ontario Optometry Conference 2010, Sault Ste. Marie, Ontario. September 2010.

"Ocular Pain Management" - Michigan Optometric Association, Summer Educational. Boyne, MI. July 2010.

"Retinal Vascular Occlusive Disease" - Michigan Optometric Association, Summer Educational. Boyne, MI. July 2010.

"Peripheral Retinal Disease" - Michigan Optometric Association, Summer Educational. Boyne, MI. July 2010.

2009

"Ocular Surface Disease" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Canada. October 2009.

"Optometric Comanagement of the Cataract Patient" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Canada. October 2009.

"Retinal Vascular Occlusive Disease" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Ontario. October 2009.

"Evaluation of the Diabetic Patient" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Ontario. October 2009.

"Allergic Eye Disease" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Ontario. October 2009.

"Glaucoma Update" - Michigan Optometric Association. Lansing, MI. October 2009.

"Ocular Pain Management" - SVS Vision Annual Educational Meeting. Boyne, MI. May 2009.

"Diabetic Patient Management" - SVS Vision Annual Educational Meeting. Boyne, MI. May 2009.

"Ocular Pain Management" - Metropolitan Detroit Optometric Society. Troy, MI. April 2009.

"Retinal Vascular Disease" - Metropolitan Detroit Optometric Society. Troy, MI. April 2009.

2008

"What's New in Topical Therapeutics" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Ontario. October 2008.

"Ocular Pain Management" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Ontario. October 2008.

"Medical Management of Glaucoma" - TPA Refresher Course, Windsor Laser Eye Institute, Windsor, Ontario. October 2008.

"Advanced Primary Eyecare Procedures" - American Optometric Association, Seattle, WA. June 2008.

"Eyerounds: State-of-the-Art Management of Chronic Dry Eye" - Continuing Medical Education, Dannemiller Memorial Educational Foundation and Synermed Communications, Grand Rapids, MI. March 2008.

"Ocular Pain Management" - West Michigan Optometric Association Spring Educational Meeting, Grand Rapids, MI. February 2008.

2007

"Advanced Primary Eyecare Procedures" - American Academy of Optometry, Tampa, FL. October 2007.

"Ocular Pain Management" - Henry Ford OptimEyes Continuing Educational Conference, Troy, MI. October 2007.

"Glaucoma Update 2007" - Henry Ford OptimEyes Continuing Educational Conference, Troy, MI. October 2007.

"Ocular Allergy" - Teed-up OD Optometric Conference, Hilton Head, SC. May 2007.

"Glaucoma Update 2007" - Teed-up OD Optometric Conference, Hilton Head, SC. May 2007.

2006

"What's New in Ocular Allergies" - Alcon Inc., Troy, MI. April 2006.

"New Technology in Detecting Glaucoma" - Alcon Inc., Troy, MI. April 2006.

"Advanced Primary Eyecare Procedures" - Teed-up OD Optometric Conference, Hilton Head, SC. May 2006.

"Cataract Co-management" - Teed-up OD Optometric Conference, Hilton Head, SC. May 2006.

"Glaucoma Update" - TLC Laser and Vision Center and Eye Center of Toledo, April 2006.

"Ocular Pain Management" - TLC Laser and Vision Center and Eye Center of Toledo, April 2006.

"Advanced Primary Eyecare Procedures" - TLC Laser and Vision Center and Eye Center of Toledo, April 2006.

2005

"Ocular Pain Management" - Michigan Optometric Association, Lansing, MI. October 2005.

"Glaucoma Update" - Metropolitan Detroit Optometric Society, Troy, MI. May 2005.

"Ocular Allergy Update" - Metropolitan Detroit Optometric Society, Troy, MI. May 2005.

"Ocular Allergy" - West Michigan Optometric Association, Grand Rapids, MI. April 2005.

2004

"Therapeutic Update" - Vision Quest 04, Windsor Laser Eye Institute, Windsor, ON, Canada. October 2004.

"Documentation, Prescription Writing and Systemic Drug Interactions" - Michigan College of Optometry, Troy, MI. September 2004.

2003

"Documentation, Prescription Writing and Systemic Drug Interactions" - Michigan College of Optometry, Lansing, MI. June 2003.

Pre and Post Operative Surgical Cataract Management - Lone Wolf Optometric Society, Gaylord, MI, June 2003.

"Retinal Vascular Occlusive Disease" - Ohio Vision Foundation, Canfield, OH. April 2003.

"Oral Pharmaceuticals in Optometric Practice" - Ohio Vision Foundation, Canfield, OH. April 2003.

"Day 1 to 20/Happy - Cataract Management" - Ohio Vision Foundation, Canfield, OH. April 2003.

"Surgical Ptosis Evaluation" - Ohio Vision Foundation, Canfield, OH. April 2003.

"Advanced Primary Eyecare Procedures" - Ohio Vision Foundation, Canfield, OH. April 2003.

2002

"Glaucoma Update - 2002" - Michigan Optometric Association, Lansing MI. September 2002.

"Retinal Vascular Occlusive Disease" - Metropolitan Detroit Optometric Society, Troy, MI. April 2002.

"Oral Pharmaceuticals in Optometric Practice" - Metropolitan Detroit Optometric Society, Troy, MI. April 2002.

2001

"Day 1 to 20/Happy - Pre and Post-operative Cataract Management" - Michigan Optometric Association, Lansing MI. October 2001.

"Peripheral Retina Overview" - Michigan Optometric Association, Lansing MI. October 2001.

"Surgical Ptosis Evaluation" - Michigan Optometric Association, Lansing MI. October 2001.

"Glaucoma Update - 2000" - Michigan College of Optometry, Lansing MI. June 2001.

"Video Grand Rounds - Anterior Chamber Angle and Retina", Michigan Chapter, American Academy of Optometry, Lansing, MI. April, 2001.

2000

"Diabetic Retinopathy", EyeQuest Conference, Chicago, IL. May, 2000.

"Advanced Primary Eyecare Procedures", EyeQuest Conference, Chicago, IL. May, 2000.

"Optometric Management of the Cataract Patient", EyeQuest Conference, Chicago, IL. May, 2000.

"Pre and post-operative Management of Cataract Patients", MOA Spring Educational Seminar, Battle Creek, MI. May 2000.

1999

"Optometric Management of the Cataract Patient", East/West Eye Conference, Cleveland, OH. October, 1999.

"Eyelid Ptosis Evaluation", East/West Eye Conference, Cleveland, OH. October, 1999.

"Advanced Primary Eyecare Procedures", East/West Eye Conference, Cleveland, OH. October, 1999.

"Advanced Binocular Indirect Ophthalmoscopy", workshop conducted at the East/West Eye Conference, Cleveland, OH. October, 1999.

"Management of Astigmatism with Soft Contact Lenses", Institute for Advanced Competency, Illinois College of Optometry, Chicago, IL. May 1999.

"Eyecare Procedures for the Primary Care Practitioner", Institute for Advanced Competency, Illinois College of Optometry, Chicago, IL. May 1999.

University Center for Extended Learning, Ferris State University, College of Optometry, Therapeutic Pharmaceutical Agent Certification Continuing Education Course, Big Rapids, MI, January 1999.

LECTURES

- Lacrimal Disorders
- Principles of Glaucoma
- Optometric Surgical Comanagement of Cataract
- Ocular Trauma
- Optic Nerve Head Disorders
- Infectious Disease and the Eye
- Fluorescein Angiography
- Therapeutic Ophthalmic Lasers
- Clinical Laboratory Procedures

LABORATORIES

- Ultrasonography
- Biomicroscopic Funduscopy
- Photography/Videography Documentation of Ocular Anomalies

1998

"Management of Astigmatism with Soft Contact Lenses", Ferris State University, Opticianry Educational, Big Rapids, MI. September 1998

"Peripheral Retinal Disorders and Glaucoma Update", Michigan Optometric Association, Annual Convention, Harbor Springs, MI. July 1998.

"Diagnosis, Treatment and Management of Glaucoma in an Optometric Setting", Saginaw Optometric Association, Spring Educational, Frankenmuth, MI. May 1998.

"Eyecare Procedures for the Primary Care Practitioner", North Dakota Optometric Association, Spring Educational, Jamestown, ND. March 1998.

1997

"Glaucoma Update", Muskegon Community College, Fall Educational Series, Muskegon, MI. November 1997.

"Primary Eyecare Procedures", Michigan Optometric Association, Contact Lens and Primary Care Seminar, Lansing, MI. October 1997.

"Peripheral Retinal Disorders", Western Michigan Optometric Association, Grand Rapids, MI. September 1997.

"Ocular Disease Case Reports - Reimbursement and Professional Communication", The Sixth Annual Conference: Quality Patient Care - Reimbursement and Co-Management, Anadem Publishing, Livonia, MI. April 1997.

1996

"Ocular Manifestations of Vascular Disease", Muskegon Community College, Fall Educational Series, Muskegon, MI. October 1996.

"Normal and Abnormal Peripheral Retinal Disorders", Michigan Optometric Association, Contact Lens and Primary Care Seminar, Lansing, MI. October 1996.

"Ocular Manifestations of Diabetes Mellitus", TIPDON - Northern Michigan Diabetes Outreach Network, Traverse City, MI. September 1996.

"Headaches and Optic Nerve Disorders", Association of Michigan Optometrists, Farmington Hills, MI. September 1996.

"Ocular Manifestations of Cardiovascular Disease", Michigan Optometric Association, Spring Educational Meeting, Ypsilanti, MI. May 1996.

1995

"Vitreous and Peripheral Retinal Disorders", Volunteer Optometric Service to Humanity Fall Meeting, Big Rapids, MI. September 1995.

Gerholz Institute for Lifelong Learning, Ferris State University, College of Optometry, Therapeutic Pharmaceutical Agent Certification Continuing Education Courses, Big Rapids, MI, May 1995; Iron Mountain, MI, June 1995; Lansing, MI, July 1995, Detroit, MI. February 1996.

LECTURES

- Principles of Glaucoma
- Optometric Surgical Comanagement of Glaucoma
- Cataract and Radial Keratotomy Patients
- Ocular Trauma
- Optic Nerve Head Disorders
- Infectious Disease and the Eye
- Fluorescein Angiography
- Therapeutic Ophthalmic Lasers
- Clinical Laboratory Procedures

LABORATORIES

- Ultrasonography
- Biomicroscopic Funduscopy
- Photography/Videography Documentation of Ocular Anomalies

"Medical Management of Glaucoma", Ferris State University, Therapeutic Pharmaceutical Agent Update Course, Lansing, MI. April 1995.

1994

"Optometric Surgical Comanagement of Glaucoma, Cataract and Radial Keratotomy Patients", Michigan Chapter of the American Academy of Optometry, Lansing, MI. September 1994.

"Binocular Indirect Ophthalmoscopy and Biomicroscopic Funduscopy with Non-Contact Fundus Lenses", Michigan Optometric Association, Detroit, MI, January. 1994.

1992

"Principles of Direct and Indirect Ophthalmoscopy", University of Houston, College of Optometry, Houston, TX. October 1992.

"Sports Related Ocular Trauma and Prevention of Sports Injuries", Institute for Optometric Practice, Waterwood Convention Center, Livingston, TX. July 1992.

"Common Red Eye Disorders", Institute for Optometric Practice, University of Houston, College of Optometry, Houston, TX. May 1992.

"Precision Management of Astigmatism with Soft Contact Lenses", Southwest Council of Optometry, Dallas, TX. March 1992.

COMMUNITY LECTURES

"Ocular Anatomy", Shelby High School, 9th grade science class, Shelby, MI. March 2011.

"Ocular Anatomy", Shelby High School, 9th grade science class, Shelby, MI. October 2009.

"Neat Eye Things", St. Mary's Catholic School, Big Rapids, MI. October 2007.

"Ocular Anatomy and Other Cool Stuff for 6th Graders", St. Mary's Catholic School, Big Rapids, MI. January 2007.

"Optics of the Eye", Big Rapids High School Physics Class, December, 2006.

"Summer Eyecare", Big Rapids Rotary Club, Big Rapids, MI. June 2004

"Cataracts, Glaucoma and Macular Degeneration", Senior Enrichment Day, Mecosta County Senior Services, Big Rapids, MI. June 2004.

"Refractive Surgery", Michigan College of Optometry, Holiday Inn and Conference Center, Big Rapids, MI. June 2003.

"LASIK and Your Eyes", University Honors College Lecture Series, Ferris State University, Big Rapids, MI. October 2002

"Eyes: How They Work and the Best Way to Take Care of Them", St. Mary's Catholic School, Big Rapids, MI. March 2002.

"Refractive Surgery", Grand Rapids Ophthalmology, Holiday Inn and Conference Center, Big Rapids, MI. June 2001.

LICENSURES

Michigan - Optometry (TPA) 1989

Texas - Optometry (TPA) 1989

Drug Enforcement Agency (DEA) 2003

MEDICAL / LEGAL

Expert witness in optometric malpractice cases, ocular disease based - 1999 to present.

ASSOCIATIONS

Fellow - American Academy of Optometry, 2004 to present.

Faculty Advisor, Michigan Optometric Student Association, 1996 to present.

Member, Michigan Optometric Association, 1993 to present.

Member, Texas Optometric Association, 1989 to 2000.

Member, American Optometric Association, 1989 to present.

ACTIVITIES

Speakers Bureau, Alcon, Fort Worth, TX, 2002 to present.

Speakers Bureau, Vision Service Plan, Sacramento, CA, 2001 to present.

Consultant, Heliopsis Digital Imaging, Hiram, OH, 1997 to 2004.

Chairman, Assistance to Graduates and Undergraduates Committee, Michigan Optometric Association, 1997 to present.

Consultant, CDC Healthcare Marketing Company, New York, NY, 1996 to present.

Chairman, Professional Development Division, Academic Relations Committee, Michigan Optometric Association, 1996 to present.

Chairman, Assistance to Graduates and Undergraduates Committee, Texas Optometric Association, 1993.

President, Northwest Harris County Optometric Society, 1993.

Vice President, Northwest Harris County Optometric Society, 1992.

Secretary/Treasurer, Northwest Harris County Optometric Society, 1990 and 1991.

Committee Member, Continuing Education Selection Committee, Assistance to Graduates and Undergraduates and the Optometric Outreach Program, Texas Optometric Association, 1990 - 1993.

President, Optometric Student Association, University of Houston, 1988 - 1989.

Trustee, American Optometric Student Association, University of Houston Chapter, 1987 - 1988.

Member, Omicron Delta Kappa, National Honors Leadership Fraternity, University of Houston Chapter, 1988 to present.

Member, Gold Key Honor Optometric Leadership Society, 1988 to present.

AWARDS

Educator of the Year, Michigan College of Optometry, Ferris State University, 1999 - 2000.

Outstanding Faculty Clinician Award, University of Houston, University Eye Institute, 1992 - 1993.

Optometric Recognition Award, American Optometric Association, 1991.

Outstanding Optometric Student Award, University of Houston, 1986 - 1987.

Edith Greeman Academic Scholarship Award, 1987.

MISCELLANEOUS

Vice President, Big Rapids Little League Board, 2009.

Assistant Varsity Golf Coach, Men's and Women's Golf Team, Ferris State University, Big Rapids, MI., 1997 to present.

President, St. Mary School Board of Education, 2005-2008.

Vice President, St. Mary School Board of Education, 2003-2005.

United States Professional Tennis Association - Certified Tennis Teaching Professional, Professional 1 Rating, 2001 to present.

Nike Adult Tennis Camp Tennis Professional, Nike Tennis Camp, Racquet and Fitness Center, Ferris State University, Big Rapids, MI., 2001 to present

Nike Junior Golf Camp Instructor, Nike Junior Golf Camp, Katke Golf Course, Ferris State University, Big Rapids, MI., 2001 to present.

Little League Manager - Big Rapids Little League, Big Rapids, MI. 2001 to present.

Little League Manager - All-Star Travel Baseball Team, Minor League Division, Big Rapids, MI. 2007.

Head Basketball Coach, Boy's 5/6, St. Mary's Catholic School, 2006-2007.

Assistant Basketball Coach, Girl's 7/8, St. Mary's Catholic School, 2007-2008.

Level 3 Hockey Coach, USA Hockey Coaching Certification, 2007-2008.

DANIEL N. WRUBEL, O.D.

CURRICULUM VITA

MARITAL STATUS

Married (6-28-80)

Spouse: Regena P. Wrubel (Genie)

Married June 28, 1980

CHILDREN

Robert Sean (Sean) DOB 3/27/85

Keith David (Keith) DOB 5/23/88

HOME ADDRESS

604 Union

Eaton Rapids, MI 48827

Phone-- (517) 663-1678

Email—docwrubel@aol.com

BUSINESS ADDRESS

ERO—Eaton Rapids Optometry (Established 10-15-80)

136 South Main Street

Eaton Rapids, MI 48827

Phone-- (517) 663-2020

Cell—(517) 285-2020

Fax—(517) 663-5290

Email—ero@hotmail.com

OTHER PROFESSIONAL ADDRESS

Michigan College of Optometry

Ferris State University

1310 Cramer Circle, 422 Pennock Hall

Big Rapids, MI 49307-2738

Phone-- (231) 591-2193

Fax—(231) 591-2394

Email—wrubeld@ferris.edu

EDUCATION

Charlotte High School, Charlotte, MI	1970-1974
Olivet College, Olivet, MI	1974-1976
Pre-Optometry Curriculum	
Major in Biology/Chemistry	
College of Optometry, Ferris State College, Big Rapids, MI	1980
Degree: Doctor of Optometry (OD)	
Post Doctorate Education, 11 Credit Hours, Therapeutic Management	1990
of Anterior/Posterior Segment Disease, College of Optometry, Ferris State University, Big Rapids, MI	
IAB/TMOD Certified	1991

AWARDS AND HONORS

Michigan Optometric Association Scholarship	1979
Highest Distinction Recognition, Ferris State College	1980
Bernell Clinical Science Award	1980
Senior Clinician of the Year	1980
Michigan Optometric Association Emil Arnold Award	1981
Salvation Army Visual Service Volunteers Recognition	1982
City of Eaton Rapids Distinctive Service Award	1989

College of Optometrists in Vision Development (COVD)	1991
Paper of the Year Award	
Rotary—Paul Harris Volunteerism Award #1	November 1999
Rotary—Paul Harris Volunteerism Award #2	February 2000
Citizen of the Year Award (ER Chamber of Commerce)	April 2005
MOA—Michigan Optometrist of the Year Award	July 2005
Rotary—Paul Harris Volunteerism Award #3	August 2009
Eaton County Favorite Optometrist of the Year (Community News)	1998, 2000-2010

Wrubel's CV continued... Page 3

PROFESSIONAL ORGANIZATIONS

Michigan Optometric Association	
Student Member	1977-1980

Professional Member	1980-present
Peer Review Committee, Chairman	1985
Volunteer Optometric Services to Humanity (VOSH) Liaison	1997-present
Central Michigan Optometric Association	
Professional Member	1980-2000
Public Relations Committee, Chairman	1981
Child Vision Screening Consultant	1982-2000
American Optometric Association, Member	1980-present
Ferris State College of Optometry Advisory Board, Member	1981-1985
Michigan College of Optometry Alumni Association	
Active Member	1981-present
President	1981-1982
Board Member	1981-1985
Ferris State College Liaison	1982-1985
College of Optometrists in Vision Development, Associate Member	1994-present
Michigan Volunteer Optometric Services to Humanity (VOSH)	
Member	1994-present
Mission Team Leader (15 consecutive missions)	1995-present
Liaison, Student Volunteer Optometric Services to Humanity (SVOSH), Michigan College of Optometry	1997-present
Board Member	2009-2010
American Optometric Student Association, Affiliate Member	1995-present
Volunteer Optometric Services to Humanity International, Member	1995-present
Grass Roots Optometry (GO)	
Team Leader	1995-1996

Regional Director	1996-1999
Team Participant	1999-present
Eaton Rapids Hospital Authority Board (President)	1999-present
Rotarian—Eaton Rapids Rotary Club (District 6360)	1998-present
President Elect	2002-2003
President	2003-2004
Chair of the International Relations Committee	2000-present
Operation Bright Start participant	1999-2004
American Foundation for Vision Awareness (AFVA)	
Michigan Affiliate Member	2000-present
Special Olympics Opening – Eyes Vision Screening Program	2001-present
Child Vision Care Task Force, The Michigan Optometric Association	2001-present
AOA InfantSee participant	2005-present
VOSH-MI Board Member	2009-present
Michigan Migrant Workers Vision Screening Program (Team Coord.)	2010

PROFESSIONAL EXPERIENCE

Private Optometric Practice, Eaton Rapids, MI	1980-present
Preschool Vision Consultant, Eaton Rapids, MI	
King Street Preschool	1983-present
Humpty Dumpty Preschool	1983-present
Home Pre-School Association	1999-present
St. Peter's Pre-School	2000-present
Elementary School Vision Consultant	
Eaton Rapids Schools, Eaton Rapids, MI	1983-present
Springport Schools, Springport, MI	1988-present
St. Mary's Catholic, Charlotte, MI	1988-present
Maplewood Schools, Nashville/Vermontville, MI	1989-present
Potterville Schools, Potterville, MI	1992-present
Holt Public Schools, Holt, MI	1996
Eaton Rapids Charter Academy, Eaton Rapids, MI	1998-present
Home School Regional Association, Holt, MI	1999-present
Charlotte Special Needs	2000-present
Grand Ledge Special Needs	2000-present
St. Peter Catholic, Eaton Rapids, MI	2005-present
Occupational/Safety Vision Consultant, Eaton Rapids, MI	

Green Bay Foods Company	1982-1992
Michigan Packaging Company	1983-2000
Eaton Technologies Company (FASCO)	1984-2207
City of Eaton Rapids	1988-present
Michigan Magnesium Products Corporation (MPA)	1990-present
Goodnoe's Tool Products, Inc	1995-present
ER Metal Products, Inc.	1997-present
Rapids Tumble Finish	1997-present
Dowding Industries	2007-present

TEACHING EXPERIENCE

Instructor, Religious Education Classes, (St. Mary's Church, Charlotte, MI)	1975-1976
Teaching Assistant (Chemistry), Olivet College, Olivet, MI	1976
Michigan College of Optometry, Ferris State University, Big Rapids, MI	
Guest Lecturer, Mode of Practice, (Practice Management Seminar)	Spring 1980
Clinical Associate	1980-1982
Assistant Professor (half time)	1983-1989
Received Tenure	Summer 1989
Promoted to Associate Professor (half-time)	1990
Post Tenure Review	Spring 2002
Promoted to Full Professor	2003
Primary Care Clinic	1980-present
Pediatric Care Clinic	1980-present
Vision Therapy (VT) Clinic	1980-present
Developmental Vision Clinic	1982-present
Binocular Vision Lab	1980-present
Vision Therapy Lab	1980-present
Developmental Optometry Lab	1984-present
Diagnosis and Treatment Lab	1980-1990
Muskegon Regional Center/Muskegon Multicap Care	1980-present
Senior Seminar/Case Reports	1980-1990
Guest Lecturer, Research/Statistics, Nursing Program, Ferris State University, Big Rapids, MI	1991
Coordinator/Instructor, Rite of Christian Initiation for Adults (RCIA),	1993-1999

Classroom Religious Education for Adults and Children, St. Peter's Church, Eaton Rapids, MI	
Liaison/Substitute	1999-present
Coordinator/Instructor, Ninth Grade CCD, St. Peter's Church, Eaton Rapids, MI	2002-2003

COMMITTEE APPOINTMENTS (Michigan College of Optometry)

Pre-Optometry Student Advisor	1985-1998, 2002-present
Continuing Education Committee	1986, 1996-1999
Computer Utilization Committee	1987-1988
Student Recruitment Committee	1987-present
Faculty Development Committee	1993-1994
Research Committee	1994-1995
Long Range Planning Task Force	1995-1996
Continuing Education Committee	1996-1997
Clinic Proficiency Committee	1997-1998
Fourth Year Class Advisor	1998-1999
SVOSH Liaison	1999-present

Wrubel's CV continued... Page 6

CONTINUING EDUCATION PROGRAMS

Eaton Rapids Elementary School, Eaton Rapids, MI, In-Service, 1 Hour, "Developmental Optometry"	Spring 1984
College of Optometry, Ferris State University, Big Rapids, MI,	Spring 1986

Clinical Associates Workshop, 3 Hours, "Vision Therapy and Developmental Optometry"	
Central Michigan Optometric Association, Lansing, MI, Association Meeting/Continuing Educational, 1 Hour, "Vision Therapy Review"	1988
Western Michigan Optometric Association, Grand Rapids, MI, Association Meeting/Continuing Educational, 1.5 Hours, "Functional Optometry"	Spring 1989
Central Michigan Optometric Association, Lansing, MI, Association Meeting/Continuing Educational, 2 Hours, "Functional Optometry Update"	March 1990
College of Optometrists in Vision Development (COVD), Big Rapids, MI, Student Association Seminar, 1.5 Hours, "What is COVD?"	1991
Michigan Optometric Association, Grand Rapids, MI, Spring Educational Seminar, 2 Hours, "Assessment/Management of Functional Visual Skills"	May 1993
Eaton Rapids Community Hospital, Eaton Rapids, MI, In-Service, 2 Hours, "VOSH Program"	April 1995
Eaton Rapids Public Schools, Eaton Rapids, MI, In-Service, 2 Hours, "Vision Problems Associated with the Disabled Reader"	November 1995
Greater Grand Rapids Lutheran Women's Mission League, Grand Rapids, MI, 2 Hours, "VOSH Program"	October 1996
Michigan Optometric Association, East Lansing, MI, Winter Educational Seminar, 2 Hours, "Non-Strabismic Diagnosis and Treatment Case Reports"	February 1997

Eaton Rapids Public Schools, Eaton Rapids, MI, In-Service, 2 Hours, "Visual Deficits Associated with Learning Disabilities"	April 1998
Central Michigan Optometric Association, Lansing, MI, Meeting/Continuing Education, 2 Hours, "Referral Criteria for Pediatric Optometry, Binocular Vision, Learning Disabilities and Special Populations"	May 1999
Student Volunteer Optometric Services to Humanity (SVOSH), Michigan College of Optometry at Ferris State University, Big Rapids, MI, 1 Hour, "Introduction to VOSH"	September 1999
Student Volunteer Optometric Services to Humanity (SVOSH), Michigan College of Optometry at Ferris State University, Big Rapids, MI, 1 Hour, "Introduction to VOSH"	October 2000
Pre-Optometry Club, Ferris State University, Big Rapids, MI, 1 Hour, "Optometry: Past, Present and Future"	April 2001

Wrubel's CV continued... Page 7

CONTINUING EDUCATION PROGRAMS (Continued)

Central Michigan Optometric Association, Lansing, MI, Meeting/Continuing Education, 1 Hour, "What VOSH Means to Me"	May 2001
Charlotte Rotary Club, Charlotte, MI, 1 Hour, "VOSH – Michigan VOSH in Dominica"	September 2001
Student Volunteer Optometric Services to Humanity (SVOSH),	October 2002

Michigan College of Optometry at Ferris State University, Big Rapids, MI, 1 Hour, "What is VOSH/SVOSH?"	
Volunteer Optometric Services to Humanity (VOSH), Dominica Eye Care, 6 Hours, "Grand Rounds"	Winter 1997-2007
Michigan College of Optometry at Ferris State University, Big Rapids, MI, 1 Hour, "Overview of Primary Care Optometry"	April 2003
Eaton Rapids ISD, Eaton Rapids, MI, In-Service, 2 Hours, "Common Vision Problems in the Disabled Reader"	May 2003
Michigan Optometric Association, Troy, MI, Summer Educational Seminar, 2 Hours, "Pediatric Eye Exam Made Easy"	June 2003
Michigan Association for the Education and Rehabilitation of the Blind and Visually Impaired (MAER), Livonia, MI, ISD Special Needs Conference, 2 Hours, "Visual Rehabilitation of the Special Needs Population"	May 2004
Eaton Rapids Rotary Club 50 Year Charter Night, 1 Hour "Rotary 100 Years Later"	June 2005
Hope Network Rehab, Lansing, MI, 1½ hours, "Visual Rehabilitation of Closed Head Injury Patients"	June 2005
Springport Public Schools PTO, Springport, MI, 1.5 Hours "Vision and Learning"	November 2005
Charlotte Public Schools (Special Ed staff), Charlotte, MI 1.5 hours "Visual Anomalies with the Disabled Reader"	December 2005
MASPOC Conference of MI, St. John's, MI, 3.0 hours "Diagnosis & Management of Anomalous Visual Conditions"	October 2006

Eaton Rapids Arts Council Quarterly Meeting, 1.5 hours	February 2007
"Rotary-VOSH Banner Program ER versus Dominica"	
Rotary District 6360 District Conference Spring 2007, 1 hour	May 2007
"Rotary-VOSH Power Point Presentation"	
Hope Network Rehab of Lansing, In Service Educational, 2 hours	July 2007
"Vision Therapy Techniques & Equipment Review"	
Central Michigan Area Optometrist Questions & Answers, 2 hours	October 2007
"Peds & VT Review/Protocols"	
Eaton Rapids Interact Club, "VOSH Volunteering", 1.5 hours	October 2007
MASPOt Spring Conference, St. John's MI, 6.0 hours-workshops	February 2008
"Vision Therapy: What OT's & PT's need to know..."	
Eaton Rapids Interact Club, "VOSH Dominica Review", 1.5 hours	September 2008

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CONTINUING EDUCATION PROGRAMS (continued)

Lions Club District Conference, "MCO Tour & VOSH Program", 3.0 hrs.	April 2009
Eaton Rapids Hospital Auxiliary, "VOSH Volunteerism", 1.5 hours	May 2009
Origami Brain Injury Rehab of Mason, "Rehab/VT Review", 1.0 hours	June 2009
Eaton Rapids Interact Club, "VOSH Dominica Review", 1.5 hours	September 2009
Hastings Rotary Club, "VOSH/SVOSH in the new MCO, 1.0 hours	June, 2010
Origami Brain Injury Rehab of Mason, VT in Rehab Review, 1.5 hours	August 2010

PUBLISHED PAPERS

- "Effects of Tints on Color Perception", Michigan Optometrist, May 1980.
- "A Comparison of Visual Developmental Progress of First and Junior First Graders—Poster Session", American Academy of Optometry, December 1986.
- "Differentiating Young Learner Groups with Visual Perceptual Testing—Poster Session", Association for Children and Adults with Learning Disabilities, February 1989.
- "A Clinical Evaluation of the S (Symptom) Factor in Exophoria", Journal of Optometric Vision Development, June 1989.
- "The Auto-Plot Field Unit for Use in Vision Therapy—Poster Session", American Academy of Optometry, December 1989.
- Co-authors Jack Richman and Michael Cron, Acknowledgment for home vision therapy sheets in back of Bernell's Guide to Vision Therapy, 1987.
- "A New and Valid Landolt C Based Pediatric Nearpoint Visual Acuity (VA) Chart—Poster Session", American Academy of Optometry, December 1990.
- "Dominican VOSH Trip", Michigan Optometrist, May 1995.
- "Validity of the 'TVPS'—Poster Session", College of Optometrists in Vision Development, October 1995.
- "Validity of the Test of Visual-Perceptual Skills—Poster Session", American Academy of Optometry, December 1995.
- "VOSH Eye Mission—Dominica 1996", Michigan Optometrist, June 1996.
- "VOSH Eye Mission—Dominica 1997", Michigan Optometrist, May 1997.
- "VOSH Eye Mission—Dominica 1998", Michigan Optometrist, May 1998.
- "VOSH Eye Mission—Dominica 1999", Michigan Optometrist, June 1999.
- "VOSH Eye Mission—Dominica 2000", Michigan Optometrist, May 2000.
- "The Speed and Accuracy of the Nikon Retinomax Auto-Refractor Versus the Standard Retinoscopy Technique for the Objective Testing of Refractive Status in Elementary Aged Children", AFVA Research Grant Summary Report, July 2000.
- "Management of Esotropia with Majority of Home Vision Therapy" - Poster Session, COVD Annual Meeting, Reno, NV, October 2000.

Co-authors Rita Videtich, O.D., and Amy Jones, O.D., "A Comparison of Three Auto-refractors and How They Correlated to the Standard Subjective Refraction for Accuracy, Validity and Efficiency of Use" – Scientific Poster Presentations, COVD Annual Meeting, Ft. Lauderdale, FL, October 2002.

Wrubel's CV continued... Page 9

PUBLISHED PAPERS (continued)

Co-authors Maribeth Bangert, O.D., and Allen Smith, O.D., "Normalization of Disparity Vergence Ranges Using a Random Dot Stereo Butterfly Target" – Scientific Poster Presentations, COVD Annual Meeting, Ft. Lauderdale, FL, October 2002.

Co-authors Devon St. Louis, O.D., and Carolyn Klunzinger, O.D., "A Bichrome Interpretation of Stereopsis, Does Chromaticity affect Stereopsis?" – Scientific Poster Presentations, COVD Annual Meeting, Tampa FL, October 2007.

Co-author Amy Dinardo, O.D., "Epidemiology of Refractive Error in Dominica, West Indies" -- Scientific Poster Presentations, COVD Annual Meeting, Tampa, FL, Oct. 2007

"2009 VOSH Dominica Trip Highlights", Michigan Optometrist, May-June 2009

"VOSH Going Strong in 2010", Michigan Optometrist, May-June 2010

UNPUBLISHED REPORTS

"Goldmann Tonometry—Alcain & Fluorescein Versus Fluress, 1981.

Co-author Kris Smith, "Investigation into Topical Anesthetics and Magnification Changes in Goldmann Tonometry", 1983.

Co-author James R. Miller, "Holistic Optometry: An Overview", 1985.

Co-author Cheryl Eskew, "The Effects of Illumination on Random Dot E Stereopsis", 1987.

Co-author Julie Marvin, "The Effect of Nearpoint Stress on Horizontal Fixation Disparity Under Open Loop Conditions", April 1988.

Co-author Kurt Dasher, "The Symptom Factor—Values Obtained from a Normal Population", April 1988.

Co-author Jeffrey Sinclair, "Analysis of Tear Chemistry Testing", April 1989.

Co-author Matthew Maki, "Speed of Stereopsis and Educational Performance: Is There a Correlation?", 1989.

Co-author Mary Jo Ference, "Measurement of Near Visual Acuity, 1990.

Co-author Charles Miller, "An Evaluation of a New Membrane Patch of Occlusion and Pressure Patching", 1990.

Co-authors Matthew Maki and Ralph Garzia, "Speed of Reading Stereopsis and School Performance", 1993.

Co-author Naomi Pack, "Analysis of Changes in the Cortical Responses of an Amblyopic Patient Pre-Vision Therapy Versus Post-Vision Therapy", 1996.

Co-author Correen Brimmer, "Responsibilities and Ramifications of Pupillary Dilation: A Legal Perspective", 1997.

Co-author Chantel Lightner, "Age Related Macular Degeneration", 1997.

Co-author Scott Dobson, "Validity of Perkins, Schiotz, and Tonopen Tonometers as Compared to Goldmann", 1998.

Co-author Virginia L. Gilmore, "A Survey of Michigan Optometrists Involved with Vision Therapy", 1998.

Wrubel's CV continued... Page 10

UNPUBLISHED REPORTS CONTINUED

Co-authors Caroline Mahase-Maharaj and Maureen Miller, "Vision Therapy as a Viable Management Option for Various Learning Disabilities", 1998.

Co-author John W. Muir, "Convergence Excess: Is There an Easier Way to Diagnose It?", 1998.

- Co-authors Lisa A. Redilla and Kristi A. Watchorn, "Vision Therapy: A Student's Perspective", 1999.
- Co-authors Maribeth Bangert and Allen Smith, "Normalization of Disparity Vergence Ranges Using a Random Dot Stereo Butterfly Target", 2002
- Co-author Dustan Martin, "Home Vision Therapy: History, Devices, Activities and Modifications", 2002.
- Co-authors Rita Videtich and Amy Jones, "A Comparison Study of Three Auto-refractors and How They Correlated to the Standard Subjective Refraction for Accuracy, Validity and Efficiency of Use", 2002.
- Co-author Julie A. Hanson, "Improving the Vision of Our Children", 2003.
- Co-author Karisa Ritter, "Analysis of the Results and Vision Screening Protocol Used at the 2001 Special Olympics Michigan State Summer Games", 2003.
- Co-authors Annessa Dix and Cara Kujawa, "EOM Ocular Deviations: Video and Explanation", 2004.
- Co-authors Heidi Freude and Lauren Zabowski, "Normalization of Disparity Vergence in a Clinical Population Using a Random Dot Stereo Butterfly", 2004.
- Co-authors Ashleigh Coss and Shannon Stanek, "A Comparison of the Reichert PT-100 Handheld, Non-contact Tonometer to Goldmann and Tono-Pen Tonometers", 2004.
- Co-authors Alicia Cain and Rinka Patel, "A Literature Overview of Age Related Macular Degeneration (ARMD)", May 2006
- Co-authors Devon St. Louis and Carolyn Klunzinger, "A Bichrome Interpretation of Stereopsis: Does Chromaticity Affect Stereo-Acuity Testing?", May 2006
- Co-authors Tracy Quant, O.D. and Kristy Watson, O.D., "The Prevalence of Glaucoma in Third World Countries", May 2007
- Co-author Any Dinardo, O.D., "Epidemiology of Refractive Error in Dominica, West Indies", May 2007
- Co-author Michael Pack, O.D., "Efficacy of First Line Surgical Treatment in the Management of Patients of an Underprivileged Socio-Economic Status and a Diagnosis of Glaucoma", May 2007
- Co-author Katherine Shuell, O.D., "Effect of Visual Edge Program on the Performance Of the Alma College Women's Varsity Softball Team", May 2008

Co-author Sarah Budnick, O.D. and Leo Thompson, O.D., "Assessing Interest in the Nintendo Wii for use in Vision Therapy", February 2010

Co-authors Danny Brikho, O.D. and Aaron Stewart, O.D., "UV Exposure Through and Around Dress Eyewear in the General Population", May 2010

Co-author Melissa S. Green, "An Epidemiological Study of Refractive Errors and Various Ocular Anomalies in Dominica, West Indies", 1998.

Wrubel's CV continued... Page 11

GRANTS RECEIVED (Total: \$141,900)

Rotary, Foundation Grant, Eye Medical Equipment-Dominica, \$16,400	1998
Rotary Foundation, VOSH Grant, Eye Glasses, \$10,000	2000
Rotary Foundation VOSH Grant, Tonometers \$2,800	2006
Ferris State University Grant, Edging Experience for SVOSH Interns \$7,500 including equipment and blank lenses	2007
Ferris State University Merit Grant; Edging Experience for SVOSH \$4,500 including lens blanks and work study time	2008
American Foundation for Vision Awareness (AFVA) SVOSH Grants	
Travel, \$6,000	1998-1999
Equipment, \$3,500	1999
Travel, \$7,000	2000-2004
Travel, \$7,500	2005
Travel, \$8,000	2006

Travel, \$8,000	2007
Travel, \$8,000	2008
Travel, \$8,000	2009
Travel, \$10,000	2010
MCO Grants	
Equipment, \$12,500	1999
Equipment, \$6,000	2002
Equipment, \$3,700	2003
Equipment, \$12,500	2005
The New MCO SVOSH Room Pledges, \$30,000	2010

COMMUNITY ORGANIZATIONS

Men's Club of St. Mary's Church, Charlotte, MI	1976-1980
Advisor, Explorers of America Scout Troop, Charlotte, MI	1977-1981
Knight-Third Degree, Knights of Columbus, St. Peter's Church, Eaton Rapids, MI	1982-present
Jaycees of America, Eaton Rapids, MI	1981-1987
Elected Official Mayor, City of Eaton Rapids, MI (4 year term)	1986-1989
Board Member, Downtown Development Authority, Eaton Rapids, MI	1986-1990
Board Member, Eaton Rapids Festivals Committee, Eaton Rapids, MI	1986-1990
Alliance for Community Development, Eaton Rapids, MI	1986-1989
Finance Committee, St. Peter's Church, Eaton Rapids, MI	1990
Eaton Rapids Community Athletics, T-Ball Coach	1992-1998

Union Street Elementary PTO, Eaton Rapids, MI

1992-2000

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COMMUNITY ORGANIZATIONS CONTINUED...

Shadowing Program

Eaton Rapids High School, Eaton Rapids, MI	1992-present
Potterville High School, Potterville, MI	1992-present
Springport High School, Springport, MI	1993-present
Leslie High School, Leslie, MI	1994-present
AYSO Soccer Coach, Eaton Rapids, MI	1993-2003
Eaton Rapids Community Hospital Financial Authority Board-Appointment, Eaton Rapids, MI	1998-present
Rotarian, Eaton Rapids Rotary Club (6360), Eaton Rapids, MI	1998-present
President Elect	2002-2003
President	2003-2004
Centennial Project Chair (Amphitheatre)	2004-2006
Chair, International Relations Committee	1999-present

MAJOR INTERESTS

Family—wife Genie and the boys Sean & Keith

Dogs—Achilles and Odie

Professional

Teaching (labs, clinics & seminars)
Pediatric Optometry and InfantSee
Vision Therapy (VT)
Developmental Optometry
Brain Injury Rehab
Special Needs Optometry
Special Olympics—Opening Eyes Vision Program
Primary Care Optometry
VOSH Missions/Coordination
SVOSH Affiliation/Liaison
Migrant Worker's Vision Screening Program, Lansing Area
Vision Screenings and Home Visits

Community/Civic

Church Related Activities
Coaching: Soccer, Basketball, and Baseball...
Politics (Ex-Mayor)
Service Club— Rotary
Committees— ER Hospital Board, Youth Athletics, Fund-raising, etc.

Yard-work/landscaping

Sports/Recreation/Travel

Revised: October 2010