

**PROGRAM REVIEW REPORT**  
**MICHIGAN COLLEGE OF OPTOMETRY**

**at**

**FERRIS STATE UNIVERSITY**

**Submitted by Program Review Committee:**

Michael T. Cron, O.D., Chair  
Roger D. Kamen, O.D., M.S.  
Michael P. Keating, Ph.D.  
James R. Miller, O.D.  
Norwood R. Neumann, D.V.M., Ph.D.  
with review from Joseph D. Czinder, O.D.

September, 1998

## **Section 1:**

# **Program Overview**

## **MISSION**

The Mission of the Michigan College of Optometry is to promote health, vision, and productivity by preparing men and women to serve the needs of those who require eye and vision care. It strives to impart to its graduates a strong ethical, social and professional commitment, and to assure that graduates have the knowledge and skills necessary for current practice as well as those which assure an ability and affinity for self-directed life-long learning. The College, through its clinics, serves as a center for education, patient care and applied research to provide environments in which current vision care procedures, delivery systems and models are continually evaluated, and where new approaches to clinical education and patient care are developed. The College serves as a resource for information and education to those already in practice and to the community at large.

### **PURPOSES:**

- To select and prepare men and women for excellence in the practice of optometry and opticianry to serve the primary vision care needs of the public.
- To provide an academic and professional environment for students that will stimulate their appreciation for and understanding of professional and ethical behavior and which will provide the opportunity for them to develop their potential for leadership in their profession and community.
- To maintain and develop clinical programs for the training of present and future practitioners which demonstrate and utilize the highest levels of technology, maximize interpersonal skills and allow for the College to serve as a patient-care resource to the state of Michigan.
- To conduct programs of research in vision, patient care, and professional education which further the ability to care for patients and to educate those who will assume those responsibilities in the future.

## **HISTORY**

In the early 1970's, substantial support developed in the Michigan legislature for an optometry school in the state. The administration of then Ferris State College lobbied vigorously for the program to be placed at Ferris. As a result, the Michigan College of Optometry at Ferris State University was established in accordance with Act 227 of Michigan Public Acts of 1974 in response to a documented need for optometrists in the state of Michigan. It is the only College of Optometry in Michigan and is one of only 16 in the United States.

An initial class of 21 students entered the College in 1975 and became the first graduating class in 1979. Despite continued legislative support, early

political problems over funding arose due to a gubernatorial line item veto of the College's budget. The College was able to be sustained as a result of Ferris' dedication to maintaining the program. Each class now consists of 32 students selected from a national and international applicant pool. This class size was established in 1979.

The curriculum is designed to produce graduates that are qualified to practice full-scope optometric care in any state and practice setting. The College meets or exceeds the standards of the Association of Schools and Colleges of Optometry and is fully accredited the Council on Optometric Education (COE). MCO is, concurrent with this program review, preparing a self-study in anticipation of a COE reaccreditation site visit this fall. The seven year accreditation given MCO by the COE in 1991 expires this year.

The College of Optometry is housed on the west side of the Ferris State University campus in Pennock Hall, a six-story structure erected in 1968 as a residence hall. It was subsequently renovated and converted to serve as the temporary home of the academic, administrative and on-campus clinical facility for the Michigan College of Optometry in 1977.

In addition to the on-campus facilities in Pennock Hall, the College utilizes many off-campus clinical facilities to maximize the clinical education of students. These off-campus clinical facilities are scattered over many states, encompass many optometric specialties and practice settings, and allow students advancing toward graduation to experience the wide diversity of potential optometric career possibilities that exist today.

## **IMPACT**

Ferris State optometry graduates are fully qualified and prepared to pass licensing examinations in any of the fifty states. Ninety-seven percent of the students in the classes between 1979-1998 completed the program and received their Doctor of Optometry degree. Graduates report a high level of satisfaction with their career choice, income and lifestyle. Many alumni speak of the continuation beyond graduation of the close and rich personal friendships developed while being students in the Michigan College of Optometry.

Of the 595 living alumni of the College, 70% are currently residing in Michigan. The remainder are scattered across 35 other states and several foreign countries (see Appendix A). A number of graduates have gone on to residencies and graduate school after completing their O.D. requirements, and there are Michigan College of Optometry graduates on the staff of at

least nine of the country's schools and colleges of optometry, including one who is serving as Dean.

Within organized optometry in the state of Michigan, all eight of the Michigan Optometric Association district chairs are Ferris optometry grads, as are four of the trustees on the MOA Board. One of our graduates also serves on the Michigan State Board of Examiners in Optometry. Nationally, alums of the College are intimately involved in activities of the American Optometric Association, the American Academy of Optometry, the Armed Forces Optometric Society, and the College of Optometrists in Vision Development among others.

The presence of the optometry clinic in the region has had a significant impact in enhancing the quality of eye and vision care services available to the public in west Michigan.

The faculty of the College had impacted professional optometry by serving as a resource for consultation and referral, and by providing continuing education programs for practitioners. MCO faculty led the way in providing diagnostic and therapeutic pharmaceutical education to the state's practitioners when the legislature authorized the use of these agents by optometrists. Continuing education courses serve as a source of revenue for the College. Members of the faculty have also been a resource for numerous industrial concerns, providing consultation services to a variety of companies.

In addition, the presence of MCO on the Ferris campus has had a positive impact on the entire University. The caliber of undergraduate student attracted to FSU because MCO is here enhances the educational atmosphere of basic undergraduate classes and many extracurricular areas as well. The level of responsibility and maturity of students enrolled in MCO reflect positively on FSU 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 brings a positive light onto the University, and, despite the relatively few numbers, the faculty provide service to the institution through their participation in University committees and activities.

## **EXPECTATIONS**

The Michigan College of Optometry has many continuing expectations, including:

- maintaining the high quality of admitted students
- maintaining the current class size
- continuing to meet the College's mission

## **FUTURE PLANS**

As will become evident in this report, MCO has some significant hurdles to overcome. Principally, these would be:

- need to stay competitive in salaries
- need for expanded patient base for clinical education
- need for new and appropriate facilities

Plans for the future, therefore, would be aimed at addressing these problems that are compromising a quality program. Recent equity salary adjustments for some MCO faculty were an encouraging sign. Further efforts will need to be made to allow the College to hire the qualified faculty and administrators it will need to maintain its current level and to progress.

There has been discussion regarding the possibility of establishing a satellite clinic for MCO in the Grand Rapids area. This plan will be pursued further in the interest of providing greater and more diverse patient population for optometric student interns.

The on-campus educational facilities for MCO, particularly the clinic, are inappropriate for continuing to do an exceptional job of meeting the mission of the College. Future plans for the College include a new facility.

## **REVIEW OF ACADEMIC PROGRAM REPORT**

The academic program report is in Appendix B. As can be seen, MCO lost two tenure track positions, and as a result needed to hire more part-time clinical faculty. Enrollment has been steady, and placement is 100%.

## **Section 2:**

# **Graduate Survey**

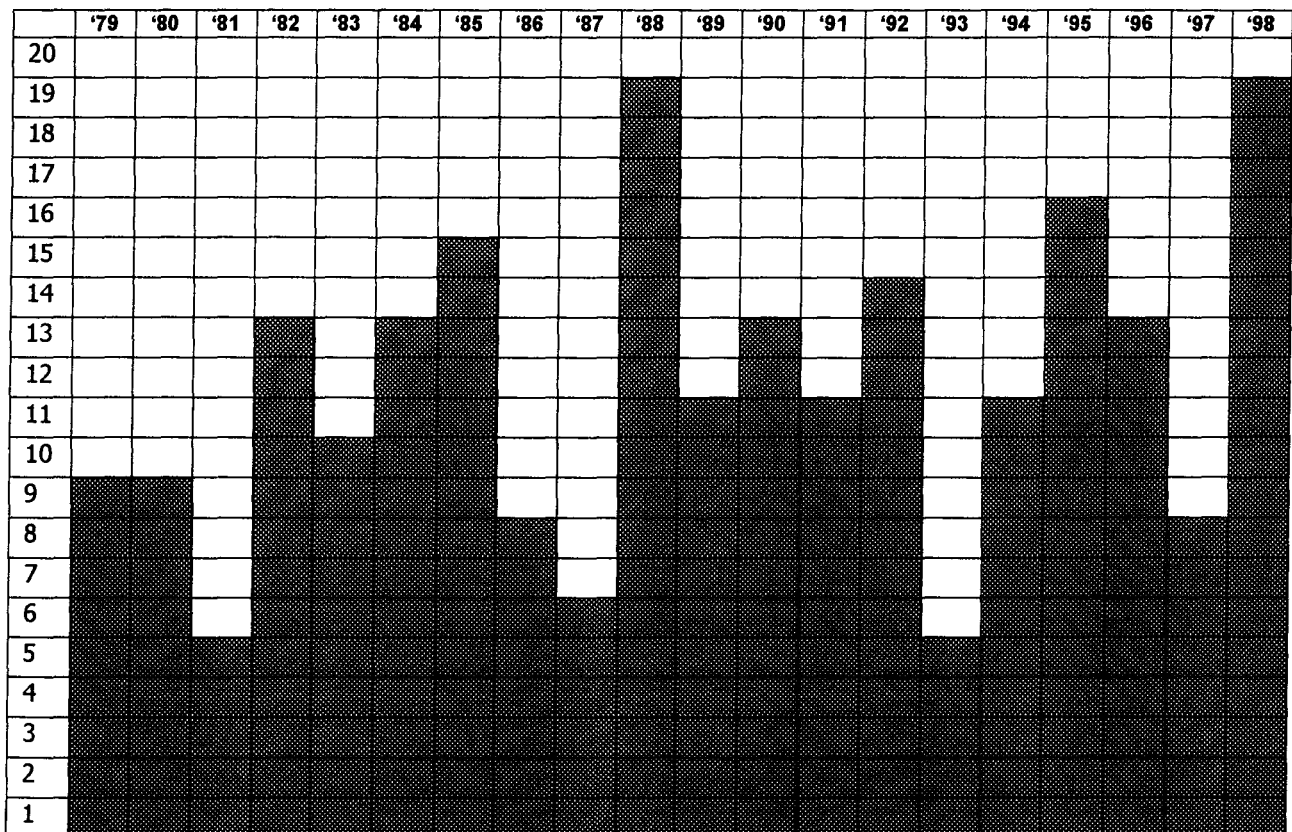
## GRADUATE SURVEY

A survey (see Appendix C) was developed and mailed to 590 graduates of the Michigan College of Optometry [there have been 597 total graduates: 2 are deceased and we have no current address for 5]. Other than lost addresses, there were no difficulties encountered in conducting this survey.

228 or 39% of the graduates responded to the survey.

Of the responders, 156 or 68% are in Michigan. Since 70% of all of MCO's graduates are in Michigan, the proportion of responders is an excellent match to the total pool. The remainder of the response came from practitioners in 29 different states or countries and 5 graduates of the class of 1998 who had not yet determined where they would be practicing.

The responses came from a reasonable distribution of years of graduation, as depicted in the following chart.



**Number of survey respondents by graduation year**

The largest group of responders were doctors in private practice (55%). The second largest group were graduates who are employed by or affiliated with



an optical company or chain (21%). This second group was more likely to be more recent graduates. (see Appendix D) The total breakdown of mode of practice of the whole group is as follows:

<b>Mode of Practice</b>	<b>Percentage of Respondents</b>
Private practice	55
Employed by optical company	21
Employed by MD	7
Employed by HMO	5
Employed by OD	4
Education	2
Other (military, VA, hospital, etc.)	6

The graduates were asked to state their level of satisfaction with their current position. 95% of the respondents were either very satisfied or somewhat satisfied with their position. The totals of responses were:

<b>Satisfaction</b>	<b>Percentage of Respondents</b>
Very satisfied	53
Somewhat satisfied	42
Somewhat dissatisfied	4
Very dissatisfied	1

The 1% "very dissatisfied" represented two graduates. Of these two very dissatisfied graduates, one was a 15 year graduate who was employed by an optical chain, and the other was a 1998 graduate who was currently employed as a technician by an ophthalmologist pending licensure.

Among those who were somewhat dissatisfied, only one was a solo practitioner. The remainder were employees, half of them working for optical chains.

## **Section 3:**

# **Employer Survey**

## **EMPLOYER SURVEY**

Owing to the independent nature of the profession of optometry, it was not appropriate to conduct an employer survey, as no such easily definable group exists. The singular nature of the employer/employee relationship where it exists within optometry would make identifying the employers difficult, and maintaining anonymity in a survey impossible. The relationship exists as a contractual arrangement between independently licensed optometrists and an entity who needs their services who is not a member of an employer group in the traditional sense.

## **Section 4:**

# **Student Survey**

## STUDENT SURVEY

The on-campus students in the first three years of the optometry doctoral program were given a survey to elicit their opinions regarding the Michigan College of Optometry and their program. A copy of the survey is in Appendix E.

There were no difficulties in getting responses to the survey, and the response rates were 100% for the first and second year students and 94% for the third year class for an overall response rate of 98%.

The students were asked to rate the quality of their faculty instruction using a five point Lickert scale (A to E) from excellent to poor, with the additional option of N/A if they felt too little experience to respond. The results were as follows:

	A	B	C	D	E	N/A
First Year	20	11				
Second Year	6	18	5			
Third Year	14	13	2	1		

The students were also asked to grade their clinical opportunities utilizing the same scale, with the following result:

	A	B	C	D	E	N/A
First Year	23	4				4
Second Year	3	9	12	3	2	
Third Year	3	16	6	5		

When asked their rating of the administrative and staff support, the students reported:

	A	B	C	D	E	N/A
First Year	22	8	1			
Second Year	11	16	2			
Third Year	10	15	4	1		

Additionally, this rating system was applied to the students' perceptions of the library. Their opinion was:

	A	B	C	D	E	N/A
First Year	2	9	7	5	3	5
Second Year	1	2	12	11	2	1
Third Year	1	8	8	9	4	

Beyond the scaled items, the students were given several open-ended questions. These focused on why they chose optometry as a career and MCO in particular, whether their interest in optometry has increased or decreased since enrollment, and whether they would do it over again given the chance.

In responding to their choice of optometry as a career, the most popular reasons were the ability to help people in a health care profession, being in a health care field but having less commitment than an M.D., being a medical professional with diverse opportunities, and past personal experiences in eye care. The students also stated that it was an exciting and financially rewarding profession, challenging with the need for continuing education, afforded a desirable lifestyle, had good pay, and allowed them to be self employed.

As to their reasons for choosing MCO, the most popular reason was the low tuition. Many other reasons were commonly mentioned, including the small class sizes, the area and location of the College, the reputation of the College, the teacher/student ratio, and the fact that it was instate.

When asked if their interest in optometry had changed since enrollment, all of the first year respondents said that it had increased. The second year was more diverse, with 13 stating it had increased, 9 stating it had stayed the same, and 2 saying it had decreased. Among the third year students, 23 said it had increased, in 5 it had stayed the same, and one said it had declined.

Finally, the students responded to queries regarding whether they would still pursue optometry as a career, and if so, at MCO or not. All 31 first year students replied yes to both questions. Of the second year respondents, 24 said yes to both questions, 2 said yes to optometry but not at MCO, and two said no to both questions. The third year students had 27 who said yes to both questions, one who replied yes to optometry but no to MCO, and one who stated no to optometry but yes to MCO.

The last portion of the survey was left open for the students to make any other comments they desired. Many of them, especially in the first year class, left this portion blank, but there were a number of comments and

suggestions offered in this part. Included among these were comments on class size from both directions, ranging from "love small class size" to "too small with too much 'petty' fighting – feel like I'm in Junior High again." There were negative comments about being in a town the size of Big Rapids and the fact that MCO did not have a medical facility with it. There were several very positive remarks including such things as "excellent school," "glad to be here," "proud to be a student at MCO," and "faculty and staff are fantastic" or "...are awesome." There were also admonitions, such as "older professors are afraid to change with the times" and [professors should] "emphasize the benefits and provide encouragement throughout the years instead of always pointing out the weakness constantly." Finally, there were these comments: "the politics here are in danger of affecting the students education" and "MCO is excellent. Any auxiliary support provided by Ferris (housing, financial aid, parking, etc.) is severely lacking. Grad students have absolutely no privileges."

## **Section 5:**

# **Faculty Perceptions**



## **FACULTY PERCEPTIONS**

A survey (see Appendix F) was utilized to elicit the faculty members' views on the program of the Michigan College of Optometry.

17 faculty (94%) returned a completed survey.

Based on the survey results, the faculty largely felt that the current admissions process of the College results in a desirable student body, and that the current prerequisites are appropriate.

The majority of the faculty felt that the College administration was committed to the program and utilized appropriate processes in administering the College. The faculty did not feel, however, that the Ferris State University administration was committed to the College, or that it used appropriate procedures in running the University.

Most faculty agreed with and said they supported the Mission of the College. They felt that the long range planning effort of the College was appropriate, and agreed strongly that the faculty expertise necessary to educate the students was available. They were, however, critical of the amount of research and scholarly activity generated at the College.

Overall, the faculty concluded on this survey that the Michigan College of Optometry was working well, but needed a few changes.

In addition to this survey, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis form was circulated to the faculty to openly solicit any comments or observations in these categories. A couple of general areas mentioned are appropriate to include here: the community, reputation, finances and administration.

The Big Rapids community was mentioned as both a strength and a weakness. It is perceived as a safe and comfortable place for students to come and faculty to live, but its size results in a limited patient base for the campus clinic. MCO's reputation was listed as a strength, and the perceived decline in FSU's reputation as a threat to the College.

Finances became an issue for several people. Low salaries were listed often as a weakness and a threat, interfering with the opportunity to retain and hire good faculty and administrators. Decreasing budgets and general lack of support from central administration were perceived as threats as well. Increasing tuition was also listed as a potential threat to our ability to compete for students.

The administration of MCO was listed as a strength by a couple faculty, including its willingness to allow innovation. However, several people commented on a lack of effective communication as both a weakness and a threat. Internal administrative communication and communication with the faculty were perceived as weaknesses. The faculty stated they were ill informed on such issues as long range plans for facilities and the Unit Action Plan. Lack of support and recognition from FSU's central administration was also a theme of several comments. MCO was thought to be a very low priority on campus based on administrative and board actions.

A few potential opportunities were observed which could serve to help MCO. Among these were chances for education over the internet and the options presented by hiring new faculty.

## **Section 6:**

# **Advisory Committee Perceptions**

## ADVISORY COMMITTEE PERCEPTIONS

The professional advisory committee for the Michigan College of Optometry was surveyed to obtain their perceptions of the O.D. program. An instrument (see Appendix G) was developed and mailed to 13 members of the advisory committee, once the membership list was updated to reflect changes in the officers of the Michigan Optometric Association who serve on the committee. The MCO Advisory Board, while solicited for feedback occasionally, has not met since 1990-91.

Six (6) surveys, reflecting a 46% response rate, were completed and returned.

On rating MCO's ability to select and prepare men and women for excellence in the practice of optometry, the average rating was 4.5 on a scale from 1 being very poor to 5 being very good. On MCO's ability to provide an academic and professional environment that developed the students' potential for leadership in the profession, the average rating was 4.0.

In evaluating MCO's programs for continuing education of practitioners, the advisory group gave an average rating of 3.7. They gave a 4.5 rating to MCO's "instate" reputation for quality, and a 4.0 to its regional and national reputation for quality. As an assessment of MCO's overall fulfillment of its Mission, the committee gave a rating of 4.2.

Open comments were solicited from this advisory group, and several were offered. One advisor commented on the benefits of continuing to include an interview in the selection process. One comment was complimentary of the "interaction with the MOA board and the student MOSA" which "helps educate students to 'real life' concerns and ethics." Comments on the continuing education question included "disorganized" and "you haven't had any lately." On the issue of fulfilling the Mission, one advisor commented "preparing students - very good. Research - ??"

The advisors were asked what they perceived to be the strengths of the program. The responses included such statements as "turns out good general practice optometrists," "low cost for state residents," "small number of students," and "small class size and excellent clinical program." The comments regarding MCO's weakness included "location," "no medical school affiliation," "low patient population base," "research experience and exposure," "lack of research," and "has not established a reputation for excellence."

Suggestions for improvement of the O.D. program at MCO included "more research by faculty," "affiliate with MSU or Wayne State Medical School" and "very inactive faculty – e.g., no significant research, no participation with MOA or local association."

The final sections of the advisory committee questioning were probes of trends that the group felt would impact optometric practice opportunities either positively or adversely. Following are some of their observations:

**Positively:**

- "expanded scope of practice will provide expanded opportunities ... O.D./M.D. affiliations provide new practice opportunities."
- "must get students into private practices during their school years..."
- "recognition of OD skills in HMO systems for triage of visual problems and diabetic management"
- "surgical alternatives to myopia/hyperopia – management"
- "hospital privileges, TPA legislation, co-management, positioning as a 'gatekeeper' within the health care industry."
- "expanded scope"
- "widening the scope of practice."

**Adversely:**

- "lower reimbursement rates for services ..."
- "PPO's and hospitals may start acquiring practices, leading to corporate decisions concerning work locations, hours, etc."
- "managed care."
- "refracting optician laws"
- "managed care, limited panels"
- "third parties not recognizing optometric services/abilities."
- "student loan debt – forces them into retail for money – often resulting in very little use of their capabilities because of business policies."
- "tend to become more medically oriented may take away from traditional optometric services"

## **Section 7:**

# **Labor Market Analysis**

## **LABOR MARKET ANALYSIS**

The following information regarding the status of the practice of optometry in the United States is from the recently completed first two phases of the National Optometric Census sponsored by the American Optometric Association. This is part of the Eye Care Workforce Project that was begun in 1994. These phases were conducted by Project Hope – the highly respected international charitable health services organization.

As of the time of the study:

- there were 33,045 licensed optometrists in America
- there were approximately 1.9 optometrists for every ophthalmologist
- there are 12 optometrists for every 100,000 people in the country
- 78.7% of optometrists are male
- 50% of the entering class in optometry schools are male
- 92-98% of optometrists over age 44 are male
- 73.4% of optometrists have both TPA and DPA certification
- only 5.4% of practicing optometrists have no pharmaceutical certification and they are mostly over 65
- 87.3% of optometrists in the Midwest hold both TPA and DPA certification
- the average optometrist devotes 92% of his or her time to patient care, and the other 8% to administration, teaching, research and other duties.
- 65% work only in patient care; only 0.9% have no patient care responsibilities
- 10.7% of optometrists do at least some teaching
- the average optometrist in the US works 41.9 hours/week
- 44.2% are in solo practice (private practice by themselves)
- 24.4% are in optometric group practice (private practice with other optometrists)
- 27.2% are employed by others/ 7.6% by other optometrists, 4.4% by ophthalmologists, 4.7% by chain optical companies, 2.6% by HMOs
- 46.9% of optometrists out of school two years or less are employed, only 14% are in solo practice
- 49.3% of males are in solo practice compared to 25.8% for females. (but the mean age for females is significantly lower)

**Section 8:**

**Evaluation of Facilities  
and Equipment**



## **EVALUATION OF FACILITIES AND EQUIPMENT**

The Michigan College of Optometry at FSU is housed in Pennock Hall, a six-story building erected as a residence hall on the Ferris campus in 1968. It was subsequently renovated to serve as the temporary home of the academic, administrative, and on-campus clinical facility for the College and was occupied by MCO in 1977. The optometry clinic is on the top two floors of the building.

The facilities and equipment of the College were included as topics on the surveys that were conducted.

The advisory committee rated the MCO facilities a 3.7 on a scale from 1 for very poor to 5 for very good. This was tied for the lowest rating the advisors gave. The equipment of the College was rated 4.0. Related to the facilities, one advisor commented "I still believe MCO would be better served in Lansing or Detroit, i.e., larger population base." When asked for weaknesses of the program, advisors made comments such as "location, facilities" and "physical facilities need updating and improvement." Suggestions for improvement included "build a new building to house the program."

The alumni survey did not ask any questions specifically regarding either the equipment or facilities, but rather was focused on practice mode, satisfaction, and the curriculum. As a result, very few offerings were made in the curricular comments section, but they did include:

- "improved library"
- "increased equipment maintenance"
- "need involvement/major clinic presence in Grand Rapids as the population in the Big Rapids area cannot adequately give the II and III year students enough primary care clinic experiences on a diverse enough population."
- and several other comments regarding the need to increase the patient base and numbers of patients seen of particular types (low vision, pediatrics, contact lenses, etc.)

Items concerning facilities and equipment were included in the faculty survey. The faculty on the whole was neutral as to whether MCO had the classroom and clinical resources necessary to educate the students. They were also neutral as to the level of library and informational resources available for meeting student needs. They did feel that the current facility was not conducive to health professions education.

The students were asked to rate the quality of their equipment and technology using the same a five point Lickert scale (A to E) from excellent to poor previously described, with the additional option of N/A if they felt too little experience to respond. The results were as follows:

	A	B	C	D	E	N/A
First Year	6	22	1	2		
Second Year	2	11	13	2	1	
Third Year	4	14	8	3		

The students also rated the quality of the library. These results were:

	A	B	C	D	E	N/A
First Year	2	9	7	5	3	5
Second Year	1	2	12	11	2	1
Third Year	1	8	8	9	4	

While the students were clearly disenchanted with the "library", it was not clear whether they were thinking of the reading room in Pennock Hall, the Health Sciences Library, Timme Library, or all of them.

The students were very free to offer their comments regarding the facilities in which they attend class, lab, and clinic. They included the following observations:

- "the place needs work"
- "ceilings falling down, holes in walls, needs paint..."
- "I'm embarrassed about the building - poor condition"
- "room for improvement in the décor"
- "the ... clinical facilities and technology at this school is virtually nonexistent"
- "need better facilities"
- "improve the décor of the building"
- "lack of study areas"
- "lounge is bad - furniture?"
- "disappointed in the appearance of the school/ by appearance and organization of clinic, MCO sinks low on the scale"
- "front lobby??"
- "why is this College the biggest dump on campus? It looks embarrassing!"
- "probably could go unsaid - we need a new facility"

Facilities and equipment were frequent subjects in SWOT analyses. One staff member listed clinic equipment as a strength. Artful redirection of clinic funds has allowed some ongoing replacement. Skillful begging from manufacturers has resulted in grants and donations of additional new technology. Faculty described equipment as a weakness. A systematic budgeting plan to maintain equipment appropriate for a modern health care facility does not exist. Computer support was also tabbed as a weakness, since the staff appear to be greatly overworked.

The facilities were also mentioned repeatedly in SWOT comments. The clinical and educational facilities were deemed inadequate, and the space poorly allocated, especially for faculty offices. There is no auditorium or lecture room sufficient in size to allow more than one class to meet for a lecture, presentation, or meeting. Lack of air conditioning in lower floors of the building and poor control of temperature, especially in the lecture rooms, make them a very poor environment for education. Having a clinical health care facility on the 5<sup>th</sup> and 6<sup>th</sup> floors of an aging, hard to locate building with intermittent elevators, poor ventilation and heat control and very inconvenient layout discourages patients, students, and faculty alike. Pennock Hall was not designed to be a health care facility; it was designed to be a dorm. Patient parking has been a long-term problem, with difficulties operating the gate and the current congestive use of a single entrance/exit. A new facility was listed as an opportunity for the College, as was the new library. Threats included no long term goals regarding facilities.

Most of these facilities concerns are not new. The majority were addressed by the College in the last accreditation self-study for the COE in 1991. That COE report cites the establishment of a New Building Committee in 1990 and provides a timetable for securing a new facility for MCO. Sadly, none of this planning has occurred.

The administration and faculty of MCO have succeeded through various means in providing a good education to students despite the setting. They continue to work with what they have. The lobby of the first floor of Pennock Hall was recently remodeled into a waiting area and conference room, but remains unfurnished. Along with this, a student lounge area was established on the first floor as well. Through efforts of administration and faculty, MCO took advantage of an opportunity when space was vacated in Pennock Hall due to the closing of the optometric technician program. Funds were secured to develop a state-of-the-art grand rounds educational room in the old optometric technician lecture room. The College's library holdings were moved to the second floor, and an 8 station computer lab for student use was established. This lab receives heavy use and at times is full.

It has been said that optometry faculty could teach and optometry students could learn in a pup tent. While this might be viewed as complimentary to both groups, it is hardly optimum or even reasonable. Faculty and students alike are questioning whether it is reasonable for MCO to remain in Pennock Hall.

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## **Section 9:**

# **Curriculum Evaluation**

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## **CURRICULUM EVALUATION**

The completion of the Doctor of Optometry degree requires four academic years and one summer term comprising 163 semester hours of study after having completed at least 80 semester hours of pre-optometry undergraduate studies (see Appendix H for prerequisites). The degree Bachelor of Science in Vision Science is granted following completion of the first two years 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 foundation for the clinical sciences. Included are a broad range of courses: human anatomy and physiology, ocular anatomy, ocular physiology, neuroanatomy; geometrical optics, physical optics, physiological optics, and visual optics; advanced microbiology and immunology, as well as, courses in health services organization and policy as an introduction to practice management. Students begin their clinical experience learning ocular health assessment and refraction techniques during the first year in a clinical simulation laboratory with fellow students serving as "patients."

Second year students begin their first direct patient care experience during the Fall 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 pathology and ocular disease, pharmacology, ophthalmic and environmental optics, contact lens optics, strabismus and vision therapy, and clinical case-study reviews to sharpen decision making in primary care diagnosis, management and treatment.

Third year courses focus on contact lenses, assessment and management of vision and developmental problems in children, care of the elderly and low vision patients, applied neuro-optometry and use of therapeutic pharmacological agents in the management of ocular and systemic disease. Clinical practice continues in primary care, pediatrics and contact lenses with the student assigned to 14 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 athletic teams on campus and 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 in such courses as psychosocial aspects of practice, community health, ethics and practice management, 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 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 professional didactic courses are offered within the first three years of the curriculum, freeing the entire fourth year for a concentrated clinical experience. Except for 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 off-campus. A few students elect to spend one rotation in residence at the Campus Optometry Clinic, 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, Michigan Department of Corrections facility, and optometric and ophthalmological private practices.

These off-campus clinical sites are chosen carefully after a review of the facilities and equipment, the availability of patients, and the quality of the supervising faculty available. Memoranda of understanding are signed between the University and the sponsor of the clinical site detailing the responsibilities of all parties. Once chosen, the sites are continually monitored for quality and to assure they are meeting the educational goals of the College. Patient logs are completed by the interns at the site. The Director of Clinics makes site visits to the clinics, faculty members make phone calls to the interns to assess their level of satisfaction, and the interns complete a site assessment survey at the completion of their rotation. These surveys are available for inspection by the faculty and by students in upcoming classes to assist them in choosing clinical rotations to meet their individual needs. Assignment of clinical rotations for the fourth year is handled by the students themselves as a class.

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. 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.

The network of affiliated sites offers quantity and diversity of patient care experiences and settings that greatly broaden the students' clinical training in the fourth year. Off-campus experiences also allow the student to gain a degree of independence from the parent institution and are viewed as advantageous for individual professional development.

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.

Current affiliation sites are described by category:

Medical Facilities at Grand Forks Air Force Base (AFB), North Dakota, Eglin AFB, Florida, and Fort Wainwright Army Base, Fairbanks, Alaska. The Optometry clinics within the military hospitals provide comprehensive primary eye care services to eligible recipients including active duty military and their dependents, retired military personnel and dependents of retirees. The clinical experience spans all age groups typical of a family practice population. Military optometrists are, by regulation, authorized to utilize therapeutic pharmaceutical agents in the treatment of anterior segment eye diseases and are the recognized primary eye care providers. All eye problems are referred to the optometrist for evaluation, treatment, or arrangement for ophthalmological care when appropriate. Ophthalmological cases that are treated off-site are generally followed by the optometrist post-operatively. Military optometry has a service-wide program of quality care assurance with peer record review.

Department of Veterans Affairs - Ferris is affiliated with five VA Medical Centers, all as full-time rotation sites (Grand Rapids, Battle Creek, Saginaw, Detroit; and Fort Wayne (IN)). In the VA optometry clinics, our students gain experience with not only primary ocular diseases, but ocular manifestation of systemic diseases. Many of the patients in the VA hospital have chronic medical conditions, often multiple, that affect the eye and surrounding structures. The availability of the complete medical record and the ability to



coordinate care with other health care disciplines on site provides excellent educational potential.

Co-Management Consultation Centers - Staffed by a Center Director optometrist and a Medical Director ophthalmologist, these centers accept patients on a referral basis for secondary level eye care. The referring optometrist remains the primary manager for the patient's eye care, and participates in the patient's secondary care in cooperation and consultation with the center's staff. Students examine approximately 400 patients with acute and chronic eye disease conditions during a typical rotation. Current affiliation centers include Commonwealth Eye Services of Lexington (KY), and Balian Eye Center of Rochester (MI).

Department of Corrections Facility - Unique to prison health care delivery systems, the Duane L. Waters Hospital was opened at the State Prison of Southern Michigan in May, 1986. The 94 bed general medical/surgical hospital is the first maximum security health care facility that is located within the main prison. Built with the "in-the-wall" security concept, the hospital is located outside of, but directly connected to the main prison complex. Health care and corrections staff enter the hospital directly from the "outside" through a secure entrance, while patients enter from the main prison complex through controlled entry points and holding areas. Ferris State University clinical professors and fourth year students provide in-patient and out-patient care for approximately 7,500 residents housed at the State Prison of Southern Michigan's maximum, medium and minimum security complexes and the outlying satellite facilities, such as the Huron Valley Womens Facility, which also depend on the Duane L. Waters Hospital for health care services. An ocular prosthetics program, initiated with cooperation and consultation from the College's Contact Lens Service, is now a regular and viable part of the clinic services available at the Duane L. Waters Hospital.

Health Maintenance Organizations - Primary vision care services are provided to large subscriber groups in the metropolitan Detroit area by HMO's. The College is affiliated with the Henry Ford Health Care Corporation, the largest southeast Michigan HMO, and has placed students at the Henry Ford OptimEyes of Taylor, Roseville and Westland MI. This setting provides ample numbers of primary examination experiences with patients of all ages, and improves access to a greater number of contact lens experiences within the off-campus affiliations. Also in this category is an inner city HMO, Comprehensive Health Services of Detroit, Inc., with approximately 80,000 subscribers.

Specialty Services - This category relates to those sites where there is a very specific emphasis on one subset population or one subset of optometric care.

Sites in this category include the Saginaw Valley Special Needs Vision Clinic, Bridgeport, the Sinai Hospital of Detroit's Vision Rehabilitation Institute, and Johns Hopkins Hospital Wilmer Eye Institute, Baltimore (MD). The Saginaw Valley Special Needs Vision Clinic is a non-profit, community-based agency housed at the Saginaw Intermediate School District's Millet Center. Emphasis is on the functional and developmental vision evaluation of the district's multiply handicapped and developmentally disabled students. The clinic's service area includes nine counties in the Saginaw Valley region, and reaches patients from pre-school to young adult ages. In addition, the clinic provides low-vision care to area residents upon referral by the Michigan Commission for the Blind, area practitioners, or self-referrals. Students are under the direct supervision of Ferris State University appointed clinical faculty who have the skills and special interest to help serve this needy population and who maintain private practices in the area as well. At Sinai Hospital's Vision Rehabilitation Institute, the intern examines and treats patients in the low-vision clinic one day per week as an adjunct to the Henry Ford Medical Center-Taylor rotation experience. At Johns Hopkins, emphasis is on special testing and on diagnosis and management of patients needing special designs in contact lenses and low vision aids.

Optometric and/or Medical Practices - These affiliations include the Garrett Eye Center of Iron Mountain (MI), Grand Rapids Ophthalmology (MI), Anderson Eye Associates (Saginaw,MI), Michigan State University Olin Health Center of East Lansing (MI), and Eaton Rapids Optometry (MI).

Care is exercised in the selection of clinical faculty to educate MCO's interns, whether at the on-campus clinical site or off-campus. The Director of Clinics carefully evaluates the qualifications of applicants under consideration, with input from the faculty. All interns at all sites complete faculty evaluation forms at the completion of each semester which gives feedback to both the Director of Clinics and the faculty members. If a clinical site becomes undesirable, either because of the available faculty or its ability to provide all appropriate educational assets for the student interns, it is dropped by the College.

The current Doctor of Optometry curriculum at MCO is as follows, semester by semester, for each of the professional years (course descriptions for each of these courses are in Appendix I).

# Appendix H

## **ADMISSION REQUIREMENTS**

Applicants must complete 80 semester hours of pre-professional courses prior to admission to The Michigan College of Optometry at Ferris State University. Pre-professional courses may be taken at Ferris or at another accredited college or university.

Pre-professional courses must include the following:

College English/Composition	1 year/6 semester hours
General Biology or Zoology	1 year with laboratory
General Inorganic Chemistry	1 year with laboratory
College Physics (non-calculus based)	1 year with laboratory
Physiology	Pre-professional, i.e.: pre-medicine, pre-dental, 200 level or higher - 4 semester hours minimum with laboratory
Microbiology	Course with biochemistry pre-requisite preferred, otherwise, 300 level course -4 semester hours minimum with laboratory
Organic Chemistry	1 year with laboratory
Biochemistry	Organic chemistry pre-requisite, or concurrent enrollment-4 semester hours minimum. No laboratory required.
College Mathematics	Math through Calculus I
Statistics	2 semester hours
Humanities	9 semester hours selected from two different areas to include one speech course.

Behavioral Science

9 semester hours with a minimum of 3 semester hours in general psychology. Select courses from two different areas with one 300-level course from one of the following: Anthropology, Economics, Political Science, Psychology or Sociology.

(An introductory business management or accounting course is highly recommended, but not required.)

All applicants are required to take the Optometry Admission Test (OAT), which is designed to measure general academic ability and scientific knowledge. In order to have the test results reported by the application deadline of February 1, it is essential that the applicant sit for the OAT during the fall testing session preceding the fall for which entry is being sought. OAT test results are valid for a maximum of five years from the date of the examination. Additionally, application for the OAT must be made at least one month prior to the test date desired.

Applicants who are in the process of a career change and/or possess academic credits that are dated with respect to time, should contact the College of determine which courses will be accepted for transfer credit in meeting the established requirements.

# Appendix I

## **DESCRIPTION OF OPTOMETRY COURSES**

**BIOL 431 - HUMAN ANATOMY AND PHYSIOLOGY - 5 Cr.**

Structure and function of cells, tissues, organs, and organ systems of the body including the head and neck. [4 + 3]

**BIOL 480 - MICROBIOLOGY FOR OPTOMETRY - 2 Cr.**

Medical microbiology and immunology with an emphasis on microbial diseases of the eye and ocular immunology. [2 + 0]

**OPTM 401 - THE PRACTICE OF OPTOMETRY - 2 Cr.**

History, education, present status and current developments in optometry and health care. The role of optometry in the ophthalmic industry, practice management, and goal setting. [2 + 0]

**OPTM 410 - GEOMETRIC, PHYSICAL, AND VISUAL OPTICS I - 5 Cr.**

Vergence treatment of first order image formation by lenses, single spherical interfaces, and mirrors. Emmetropia and ametropia of the human eye. Spectacle and contact lens corrections. Accommodation and ranges of clear vision. Reduced systems. Tear lens effect. Optics of spherocylindrical lenses and astigmatism. Prisms and prism-lens combinations. Lens motions and rotations. Decentration. [4 + 2]

**OPTM 411 - GEOMETRIC, PHYSICAL, AND VISUAL OPTICS II - 5 Cr.**

Equivalent power and principal planes. System matrices. Gullstrand Schematic Eyes. Angular magnification. Spectacle magnification. Off-axis astigmatic effects. Over-refraction. Stops and related effects. Aberration theory. Aberrations of the human eye. Coherence and interference. Laser acuity testing, laser refraction, anti-reflecting films. Diffraction and resolution. Diffractive gratings and lenses. Holograms. Scattering, dispersion, and polarization. Emission, absorption and photons. Laser ocular surgery. Spatial distribution of optical information. Modulation transfer functions. Spatial filters. Prerequisites: OPTM 410 [4 + 2]

**OPTM 420 - OCULAR HEALTH ASSESSMENT - 3 Cr.**

Theory and practical experience in basic tests utilized in determining the ocular health of a patient. Topics covered included: case history, sphygmomanometry, external examination of the eye and pupillary function, direct ophthalmoscopy, monocular and binocular indirect ophthalmoscopy biomicroscopy, lacrimal system assessment, tonometry, and basic visual field testing. [1 + 4]

**OPTM 421 - ASSESSMENT OF THE EYE'S REFRACTIVE STATUS AND OCULOMOTOR SYSTEM/TESTING - 5 Cr.**

Theory and practical experience in basic clinical methods of determining the refractive status of the eyes. Topics covered include visual acuity, keratometry, retinoscopy, and subjective refraction. Procedures and instrumentation for clinical examination and diagnosis of problems of the oculomotor system. Emphasizes theory and measurement of clinical problems in ocular motility, binocularity, and accommodative function. Prerequisites: OPTM 420, OPTM 410. [3 + 4]

**OPTM 430 - NEUROANATOMY - 3 Cr.**

A detailed anatomical examination of the normal human nervous system with special attention to functional aspects. [2 + 2]

**OPTM 431 - OCULAR ANATOMY AND PHYSIOLOGY - 4 Cr.**

A detailed discussion of the anatomy of the orbit. Particular emphasis is given to cellular, histological, and gross anatomical organization of the eye. The anatomical relationships of the orbital contents including the extraocular muscles, the orbital nerves, the orbital blood vessels, and the ocular adnexa are described. Physiology and biochemistry of the principal constituents of the eye, including: the cornea, crystalline lens, aqueous humor, vitreous humor, retina, ciliary apparatus, and tear film. Prerequisites: BIOL 431 [4 + 0]

**OPTM 440 - OPTICAL AND MOTOR ASPECTS OF HUMAN VISION - 6 Cr.**

Assessment of the visual stimulus, methods of measuring the optical parameters of a living eye, entoptic phenomena, etiology of ametropia, and the study of the intraocular and extraocular muscles, physiology, and



motility. Prerequisites: OPTM 410 [5 + 2]

#### OPTM 512 - OPHTHALMIC OPTICS - 3 Cr.

The physical and optical consideration of ophthalmic spectacle lenses. Verification of power and prism. Thickness, decentration, and prismatic considerations. Vertical prism imbalance. Corrected curve lenses. Optics of multifocal lenses. Prerequisites: OPTM 411 [2 + 2]

#### OPTM 513 - OPHTHALMIC OPTICS AND ENVIRONMENTAL VISION - 4 Cr.

The prescription, design, selection, availability of multifocal lenses, progressive adds, tints, sunglasses, and protective filters. Special problems and solutions for high plus, aphakic, and high minus prescriptions. Impact resistance of ophthalmic materials, methods of measurement, and standards. Frame selection, mounting, adjusting, and repair. Visual environment, including lighting principles, protective and preventive principles, and occupational requirements. Prerequisites: OPTM 512 [3 + 2]

#### OPTM 522 - ASSESSMENT OF THE OCULOMOTOR SYSTEM/ANALYSIS – 4 Cr.

Theory, clinical evaluation, and management of simple, non-strabismic oculomotor dysfunction. Diagnosis and management of color vision defects. Prerequisites: OPTM 421 [3 + 2]

#### OPTM 523 - STRABISMUS AND VISION THERAPY - 4 Cr.

Diagnosis of nonstrabismic oculomotor dysfunction and strabismic dysfunction. Vision therapy techniques to treat these conditions. Prerequisites: OPTM 522 [3 + 2]

#### OPTM 532 - GENERAL PATHOLOGY - 4 Cr.

Fundamental disease mechanisms such as acute inflammation, infection, wound healing, genetics. Diseases and infectious agents including viruses, bacteria, fungi, worms. Diseases of organ system such as skin, lungs, kidney, etc. HIV and AIDS. Prerequisites: BIOL 431, BIOL 480 [4 + 0]

**OPTM 533 - GENERAL AND OCULAR PHARMACOLOGY - 5 Cr.**

General principles of pharmacology, the action, mechanisms of actions, absorption, fate, excretions, toxicity, and the diagnostic and therapeutic uses of both systemic and ocular drugs. Includes systemic effects of drugs. Also includes pharmaceutical treatments for HIV and AIDS. Prerequisites: OPTM 431, OPTM 440 [5 + 0]

**OPTM 541 - VISUAL INFORMATION PROCESSING AND PERCEPTION – 6 Cr.**

Mechanisms of afferent visual information processing - beginning with photochemistry and including psychophysical and electrophysiological approaches. Both monocular and binocular sensory aspects of vision are treated. Prerequisites: OPTM 440, OPTM 431, OPTM 430 [5 + 2]

**OPTM 550 - OCULAR DISEASE I - 4 Cr.**

Diagnosis and management of anterior segment disease including specific signs and symptoms common with the eyelid, conjunctiva, cornea, lacrimal apparatus, orbit, sclera, episclera, and crystalline lens disorders. Prerequisites: OPTM 431, OPTM 421 [3 + 2]

**OPTM 551 - OCULAR DISEASE II - 3 Cr.**

The diagnosis and management of posterior segment disorders including uveal disease, infectious disease, connective tissue disease, cardiovascular disease, blood disorders, diabetes, maculopathies, and peripheral retinal disorders. Prerequisites: OPTM 550 [3 + 0]

**OPTM 560 - CONTACT LENSES I - 3 Cr.**

Theory and practice of the optics, design, inspection, and modification of all types of contact lenses. The pharmacology and use of related solutions and care systems. Prefitting examination, and fitting of spherical rigid lenses. Prerequisites: OPTM 512, OPTM 431, OPTM 512 [2 + 2]

**OPTM 580 - OPTOMETRY CLINIC II-1 - 1 Cr.**

Introductory patient care experience. Includes professionalism, clinical skills,

patient management, and case analysis. Prerequisites: OPTM 512, OPTM 522, OPTM 550 [0+3]

OPTM 581 - OPTOMETRY CLINIC II-2 - 1 Cr.

Additional patient care experience to refine clinical testing skills and analysis of visual problems. Prerequisite: OPTM 580 [0+3]

OPTM 602 - PUBLIC HEALTH ASPECTS OF THE PRACTICE OF OPTOMETRY  
- 3 Cr.

Overview of public and community health, basic sciences, problems, planning, and care, including considerations of quality, efficiency, and economics of vision and health care delivery and utilization. Health care agencies within the community. [3+0]

OPTM 603 - ETHICS AND MANAGEMENT OF THE PRACTICE OF  
OPTOMETRY - 4 Cr.

Factors influencing doctor-patient and employee relationships, development of interviewing and observational skills, recognition and management of common emotional reactions among patients and their adaptive mechanisms and applications of this knowledge. Optometric product, optometric economics, modes of practice, practice development, and health care marketing. Liability and licensing laws and ethical/professional considerations. [4+0]

OPTM 624 - PEDIATRIC VISION - 2 Cr.

Clinical evaluation and management of aniseikonia. Vision screening models. Development of infant visual skills. Infant examination techniques. Skills necessary in the pediatric optometric examination and pediatric case management including refractive conditions, binocular anomalies, and disease problems. [2+0]

OPTM 625 - DEVELOPMENTAL ASPECTS OF VISION - 3 Cr.

Basic child development principles. Development of human visual performance, visual information processing systems, and their relationships to learning disorders, including reading problems, learning disabilities,

dyslexia. Introduction to interdisciplinary management of children with learning disorders. [2 + 2]

**OPTM 634 - PHARMACOLOGIC MANAGEMENT OF OCULAR CONDITIONS - 2 Cr.**

Diagnosis and management of ocular disorders (including glaucoma) through the use of pharmaceutical agents and non-invasive procedures.

Prerequisites: OPTM 533, OPTM 551 [2 + 0]

**OPTM 642 - VISUAL FIELDS - 3 Cr.**

Review of visual pathway anatomy, methods and instrumentation for clinical visual field measurements, analysis and classification of visual field losses, and types of field losses associated with ocular and neurological pathologies.

Prerequisites: OPTM 541 [2 + 2]

**OPTM 643 - LOW VISION AND GERIATRIC VISION - 4 Cr.**

Incidence, etiology, and examination techniques in low vision and geriatrics. Prescribing, ordering, and dispensing of low vision aids. The process of aging from a demographic and epidemiological frame of reference. The biological, physiological, and sociological aspects of aging, and their interaction with optometric care. Normal age related eye/vision changes. Common systemic and ocular diseases associated with aging. Counseling the geriatric patient on visual problems and the visual environment.

Prerequisites: OPTM 513 [4 + 0]

**OPTM 652 - CLINICAL NEUROPTOMETRY - 2 Cr.**

Overview of the diagnosis and management of neuroptometry problems.

Includes extensive case studies. Prerequisites: OPTM 430, OPTM 551 [2 + 0]

**OPTM 653 - OCULAR DISEASE III - 2 Cr.**

Course emphasizes the specific surgical, laser and/or medical management of patients with ocular disease. A significant portion of the course is taught by ophthalmologists from various specialities (retina, glaucoma, cornea, etc.).

The differential diagnosis of eye disease is also emphasized. Prerequisites:

OPTM 551 [2+0]

OPTM 661 - CONTACT LENSES II - 4 Cr.

The fitting of spherical hydrogel lenses. The fitting and management of special cases including toric lenses, presbyopic patients, keratoconus, cosmetic lenses, aphakia, pathological cases. Includes an emphasis on aftercare and patient management. Prerequisites: OPTM 560 [3+2]

OPTM 681 - SUMMER OPTOMETRY CLINIC - V Cr.

Direct patient care experience in the Clinical Practice of Optometry at the on-campus clinic. Contact hours depend on number of credits assigned. Prerequisites: OPTM 581, OPTM 551, OPTM 533, and permission of the Dean

OPTM 682 - OPTOMETRY CLINIC III-1 - 6 Cr.

Patient care experience in the clinical practice of optometry at the on-campus clinic. Includes seminar and case study review to sharpen decision making in diagnosis, management, and treatment. Prerequisites: OPTM 581, OPTM 551, OPTM 533 [1+15]

OPTM 683 - OPTOMETRY CLINIC III-2 - 6 Cr.

Patient care experience in the clinical practice of optometry at the on-campus clinic. Includes seminar and case study review to sharpen decision making in diagnosis, management, and treatment. Prerequisites: OPTM 682 [1+15]

OPTM 784 - CLINICAL PRACTICE IN OPTOMETRY I - 13 Cr.

14 weeks of advanced patient care experience in the clinical practice of optometry at on and/or off campus clinics. Prerequisites: OPTM 683 [0+40]

OPTM 785 - CLINICAL PRACTICE IN OPTOMETRY II - 13 Cr.

Advanced patient care experience in the clinical practice of optometry at on

and/or off campus clinics. Prerequisites: OPTM 683 [0+40]

OPTM 786 - CLINICAL PRACTICE IN OPTOMETRY III - 13 Cr.

Advanced patient care experience in the clinical practice of optometry at on and/or off campus clinics. Prerequisites: OPTM 683 [0+40]

OPTM 797 – SPECIAL STUDIES – 1-4 Cr.

Senior research project conducted under the supervision of an overseeing faculty member.

# Appendix J

## **Michigan College of Optometry Faculty**

Alan L. Lewis (1991)

Dean, Professor

B.S. Optom., O.D., Massachusetts College of Optometry

M.S., Ph.D., Ohio State University

Professor of Physiological Optics, Director of Graduate Studies, Assistant Dean at SUNY from 1972 to 1991. Taught courses in optics, monocular sensory processing, color vision, lighting, and electrophysiology. Research interests in visual performance (especially as affected by environmental lighting), color vision, and glare. Active in international standards. Currently President of USNC/CIE and ASCO.

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Thomas R. Colladay (1966)

Associate Dean, Student Academic Affairs,

Professor

B.S., M.S., University of Michigan

Ph.D., Indiana University

Biology faculty at FSU prior to joining MCO. Taught physiology, neuroanatomy, ocular physiology and histology. Provided continuing education and has authored several laboratory manuals. Research interests in retinal dystrophy and retinitis pigmentosa. Administrative assignment since 1982.

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Michael T. Cron (1980)

Associate Dean

Professor

O.D., Illinois College of Optometry

Private practice for 8 ½ years; part-time faculty at FSU in 1977; permanent full-time in 1982. Taught courses in pediatrics, vision therapy, case analysis, vision screening, aniseikonia, practice management, and developmental vision. Numerous continuing education presentations, posters at national meetings, articles published and several book chapter contributions. Former Chief of Pediatrics Clinic. Current administrative assignment since 1992.



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Walter C. Betts (1979)  
Professor  
O.D., Ohio State University

Hospital based residency at the Veterans Administration Hospital in Lexington, KY. Taught courses in ocular pathology, low vision, geriatric vision, and advanced diagnosis and treatment of ocular diseases. Clinical instruction in primary care, ocular disease, emergency care, geriatric vision and low vision clinics. Has provided numerous continuing education courses and workshops. Has served as Chief of Ocular Health service at the campus clinic and established Health Center Emergency Eye Care Clinic on campus.

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Robert L. Carter (1975)  
Professor  
A.B., O.D., Indiana University

Had experience as an optometry officer in USAF and as assistant professor at Indiana University prior to MCO. Also has worked in a private practice and at a large metropolitan hospital practice. Taught courses in case analysis, tests and procedures, public health, ocular disease and pharmacology. Clinical instruction in primary care, sports vision, ocular disease and contact lenses. Numerous continuing education programs and workshops. Extensive involvement in state association including MOA presidency. Several VOSH missions and has served as faculty advisor to SVOSH.

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Roger D. Kamen (1991)  
Assistant Professor  
B.S.M.E., Tulane University  
M.S., O.D., Ohio State University

Previous experience in private practice. Experience teaching in tests and procedures laboratories and in public health and practice management. Clinical education in primary care. Contributed chapters to practice management text. Recently accepted faculty position after 7 years as Director of Clinics.

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Michael P. Keating (1975)  
Professor  
B.S., Creighton University  
M.S., Ph.D., Indiana University

Previous faculty positions at Indiana University and Pennsylvania College of Optometry. Taught general physics, geometric and physical optics, and ophthalmic optics. Author of text *Geometric, Physical, and Visual Optics* and numerous articles. Many presentations at national meetings. Has served as Associate Dean and twice as Acting Dean. Recognized as FSU's Distinguished Teacher

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Vincent M. King (1975)  
Professor  
O.D., M.S., Ph.D., Ohio State University

Previous faculty positions at Ohio State University and the Pennsylvania College of Optometry. Taught courses in physiological optics, environmental vision, geometrical and physical optics, ophthalmic optics, industrial vision, and geriatrics. Clinical teaching in primary care. Numerous continuing education courses and papers published. Much work with ANSI standards committee. Former associate dean of MCO.

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Mark E. Kosciuszko (1984)  
Associate Professor  
B.A., Alma College  
O.D., Ferris State University

Completed a pediatric residency at the Illinois College of Optometry and then joined the faculty at ICO. Full-time faculty of MCO since 1984. Taught vision therapy, developmental vision and neuroptometry. Several continuing education courses and poster presentations at national meetings. Long time faculty representative of FSU to National Collegiate Athletic Association.

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James R. Miller (1988)  
Associate Professor  
B.S., Central Michigan University  
O.D., Ferris State University

Part-time private practice prior to full-time appointment at MCO in 1988. Taught in areas of tests and procedures and associated laboratories. Coordinates on-campus vision screening for dormitories and sports teams. Chief of Sports Vision service.

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Frederick M. Nista (1974)  
Professor  
B.S., John Carroll University  
O.D., Illinois College of Optometry

Private practice experience and former director of optometric technician program at FSU. Teaches in tests and procedures laboratories, and clinical education in primary care and pediatrics.

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James E. Paramore (1978)  
Professor  
B.S., O.D., University of Houston

Former optometry officer in USAF and faculty member at University of Houston College of Optometry. Taught contact lenses, environmental vision and psychosocial aspects of optometric practice. Clinically involved in contact lens clinic. Numerous lectures and papers in contact lenses and environmental vision. Former director of clinics at MCO.

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Nancy Peterson-Klein (1977)  
Professor  
B.S., O.D., Ohio State University

Previous experience in private practice and as a faculty member at Ohio State University. Has taught courses in clinical procedures, vision therapy, strabismus and case analysis. Several continuing education courses and workshops. Chief of Primary Care service at MCO clinic.

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John J. Pole (1981)  
Professor  
O.D., M.S., Ohio State University

Residency in contact lenses at Ohio State University. Experience in private practice and as a faculty member at Ohio State. Taught in areas of contact lenses, anterior segment and treatment of disorders. Clinical education in contact lenses and keratoconus. Numerous continuing courses in areas of contact lenses and anterior segment pathology and treatment. Former chief of Contact Lens Clinic.

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J. James Saladin (1978)  
Professor  
B.S., O.D., Indiana University  
Ph.D., University of California at Berkeley

Optometry officer in US Navy. Instructor at University of California - Berkeley School of Optometry. Since at MCO has taught physiological optics, ocular anatomy and neuroanatomy, oculomotor diagnostics, strabismus, and vision therapy. Clinical education in primary care, pediatrics and vision therapy. Vision consultant to Defense Mapping Agency. Numerous articles, book chapters and continuing education presentations. Chief of Binocular Vision at MCO.

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Michael S. Shansky (1981)  
Associate Professor  
B.A., Marquette University  
Ph.D., Syracuse University

Former faculty member at Illinois College of Optometry. Taught physiological optics and psychology. Clinical education in electrodiagnostics. Many research presentations and publications and continuing education courses.

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J. Randall Vance (1979)  
Professor  
O.D., M.S., Ohio State University

Optometry officer in US Army. Taught courses in clinical procedures and visual fields and in primary care and contact lens clinics. Several continuing education courses and workshops, as well as publications. Former Director of Clinics at MCO. Recognized as FSU's Distinguished Teacher.

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Philip E. Walling (1994)  
Assistant Professor  
A.S., Kalamazoo Valley Community College  
B.S., Western Michigan University  
O.D., University of Houston

Formerly taught at University of Houston College of Optometry, then private practice and U of M Health Service. Teaches ocular disease. Clinically educating in primary care, advanced medical and surgical service, and is Chief of Contact Lens service. Many continuing education presentations on ocular disease and contact lenses.

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Maureen E. Watson (1987)  
Associate Professor, Librarian  
B.S., M.S., University of Illinois

Former school librarian and reading instructor. Optometry librarian since 1987. Active in Association of Visual Science Librarians including presentations.

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Daniel N. Wrubel (1982)  
Associate Professor  
O.D., Ferris State University

Private practice since graduation; half-time MCO faculty since 1983. Taught in vision therapy and developmental vision laboratories. Clinical education in primary care, vision therapy and pediatrics. Presentations and posters at national meetings. Former mayor of Eaton Rapids, MI.

# Appendix K

**College of Optometry**  
**FERRIS STATE UNIVERSITY**

**Office of the Associate Dean**

TO: Optometry Faculty  
FROM: M. Cron   
RE: NBEO  
DATE: March 1, 1993

Following are the results of the August '92 administration of the National Boards for Ferris students, for your information.

**Basic Science**

[12 candidates / 75% passed || National pass rate 67.6%]

<u>Part</u>	<u>% Correct FSU</u>	<u>% Correct National</u>	<u>FSU Z-score</u>
Full	63.6	63.4	+ 0.02
Human Biology	57.4	55.4	+ 0.18
Ocular/Visual Biology	64.7	64.0	+ 0.06
Theoretical, Ophthalmic & Physiological Optics	63.7	64.8	- 0.11
Psychology	79.8	78.6	+ 0.10
Basic Pharmacology	52.4	53.4	- 0.07

**Clinical Science**

[5 candidates / 100 % passed || National pass rate 87.8%]

<u>Part</u>	<u>% Correct FSU</u>	<u>% Correct National</u>	<u>FSU Z-score</u>
Full	73.3	69.9	+ 0.39
Systemic Conditions	58.7	61.6	- 0.26
Ocular Disease/Trauma	74.3	66.7	+ 0.76
Refractive, Oculomotor/ Sensory Inte. Conditions	75.5	74.3	+ 0.12
Perceptual Conditions	83.1	75.2	+ 0.77
Public Health	58.6	58.6	± 0
Clinicolegal	74.5	75.1	- 0.04
Clinical Pharmacology	74.2	70.0	+ 0.37

COLLEGE OF OPTOMETRY  
FERRIS STATE UNIVERSITY

**TO:** optometry faculty and students

**FROM:** m. cron *MC*

**RE:** NBEO

**DATE:** December 10, 1993

We recently received from the national office in Washington the institutional report of candidates performance for Ferris State on the May, 1993 Part III - Patient Care examination. A summary of these results follows:

**Part III - Patient Care** [FSU candidates (graduates) pass rate: 79% (n=14)]  
[National graduate candidates pass rate: 96% (n=646)]

	<u>FSU Mean Score</u>	<u>National Mean Score</u>	<u>Z-score</u>
<i>Full Part</i>	82.3	84.8	- 0.68
<i>Clinical Skills Exam</i>	86.0	89.2	- 0.73
<i>Visual Recognition and Interpretation of Clinical Signs</i>	85.0	84.0	+ 0.14
<i>Patient Management Problems</i>	56.9	59.2	- 0.82

[all scores are reported as percentages  
section weights: CSE = 74%, VRICS = 14%, PMP = 12%]

FYI, an outline of this exam is on the reverse.



# FERRIS STATE UNIVERSITY

## COLLEGE OF OPTOMETRY OFFICE OF ASSOCIATE DEAN

TO: Optometry Faculty, Staff, Students

FROM: M. Cron 

RE: NBEO Performance

DATE: November 30, 1994


We have recently received from national headquarters the report of the performance of FSU students on the Basic Science portion of National Boards administered in August. There were 35 FSU candidates who took the exam, 31 of them for the first time. The pass rate was 83%. Nationally, 878 candidates took the exam, 665 for the first time, with an overall pass rate of 65%. A breakdown of the performance by component follows.

Test Component	Content Area	FSU % Correct	Z-Score	National % Correct
Full Part	Basic Science	66.2	+ 0.35	62.9
A	Human Biology	63.9	+ 0.23	61.4
A - 1	Gross Anatomy	63.4	+ 0.22	59.7
A - 2	Histology	63.9	+ 0.27	60.0
A - 3	Neuroscience	59.8	+ 0.09	58.4
A - 4	Gen Biochemistry	61.8	+ 0.13	59.8
A - 5	Gen Physiology	64.1	+ 0.07	63.2
A - 6	Gen Microbiology	68.6	+ 0.04	68.0
A - 7	Gen Immunology	61.7	+ 0.13	59.3
A - 8	Gen Pharmacology	63.3	+ 0.32	58.6
A - 9	Gen Pathology	68.3	+ 0.13	66.5
B	Ocular/Visual Biology	63.2	+ 0.13	61.7
B - 1	Anatomy of Eye/Adnexa	59.2	0	59.2
B - 2	Ocular/Pathway Devel.	60.0	- 0.25	64.3
B - 3	Oc Phys/Neurophys	66.0	+ 0.29	62.1
B - 4	Ocular Pharmacology	67.9	+ 0.24	64.3
C	Theoretical, Ophthalmic, & Physiological Optics	69.6	+ 0.50	64.4
C - 1	Geometrical Optics	69.9	+ 0.34	64.4
C - 2	Physical Optics	53.1	+ 0.18	49.4
C - 3	Ophthalmic Optics	64.8	+ 0.14	62.7
C - 4	Visual Optics	68.0	+ 0.52	59.9

Test Component -----	Content Area -----	FSU % Correct -----	Z- Score -----	National % Correct -----
C - 5	Visual Perception	69.7	+ 0.49	64.1
C - 6	Ocular Motility	81.0	+ 0.38	77.1
D	Psychology	76.1	+ 0.51	70.6
D - 1	Psychophysical Meth	46.4	- 0.22	51.7
D - 2	Human Development	81.8	+ 0.66	74.2



- MEMORANDUM -

TO: College of Optometry  
FROM: M. Cronin   
RE: NBEO Part II - December 1995 Administration  
DATE: February 29, 1996

We have recently received an institutional report on the performance of our students and the national cohort on the December, 1995, administration of the NBEO Part II. This is the targeted time for fourth years students to take part II, and a record number nationally sat for the exam. The following is a summary and overview of this exam as it relates to FSU.

1254 examinees, 32 from FSU.

National pass rate: 93%

FSU pass rate: 100% [including at least 1 student with the highest national score achieved!]

Statistical breakdown (% correct):

	<u>FSU %</u>	<u>National %</u>	<u>Z-score</u>
Full Part	76.2	72.4	+ 0.51
Section A	74.5	72.5	+ 0.23
Section B	76.9	71.8	+ 0.57
Section C	78.8	74.2	+ 0.50
Section D	70.0	68.2	+ 0.18
Section E	72.5	70.8	+ 0.13
Section F	73.7	75.3	- 0.12
TMOD	75.7	72.2	+ 0.37

So, the only section in which the FSU students scored below the national average score was Section F, Clinicolegal Issues.

Subsections of note:

	<u>FSU %</u>	<u>National %</u>	<u>Z-score</u>
A -10	65.6	80.0	- 0.51
A -12	45.3	57.9	- 0.59
A -13	46.9	64.4	- 0.37
A -17	86.7	71.2	+ 0.65
B -1	67.5	68.5	- 0.07
B -4	74.1	65.0	+ 0.66
B -11	84.0	71.6	+ 0.80
C -7	80.2	71.5	+ 0.61
C -8	84.6	76.8	+ 0.57
D -3	57.3	58.8	- 0.07
E -3	63.5	67.3	- 0.20
F -3	59.4	69.9	- 0.42
F -5	75.0	76.4	- 0.06
F -6	76.6	80.9	- 0.15

The FSU pass rate for the TMOD was 97% (national pass rate 86.5%).


FYI:

Section A	-	Systemic Conditions
Section B	-	Ocular Disease/Trauma
Section C	-	Refractive/Oculomotor/Sensory Integrative Conditions
Section D	-	Perceptual Conditions
Section E	-	Public Health
Section F	-	Clinicolegal Issues

A -10:	Gastrointestinal System	[2 items]
A -12:	Endocrine/Metabolic System	[6 items]
A -13:	Reproductive System	[1 item]
A -17:	Infectious Diseases	[4 items]
B -1:	Ocular Adnexa	[15 items]
B -4:	Cornea	[21 items]
B -11:	Posterior Pole	[16 items]
C -7:	Anomalies of Eye Movements	[12 items]
C -8:	Anomalies of Accommodation & Accommodative Vergence	[14 items]
D -3:	Anomalies Secondary to Acquired Neurological Impairment	[6 items]
E -3:	Health Care Policy and Administration	[6 items]
F -3:	Patient Records	[3 items]
F -5:	Professional Liability of Optometrists	[3 items]
F -6:	Evaluation of Visual Disability by Optometrists	[2 items]

Michigan College of Optometry  
FERRIS STATE UNIVERSITY

MEMORANDUM

TO: Faculty, Staff, Students  
FROM: M. Cron   
RE: NBEO Results  
DATE: October 1, 1996

We recently received the institutional report on performance of MCO grads on PART III of the National Board exam administered this year. All 16 of our graduates that took the exam passed.

The total part scores are reported in a range of 100 to 900, with 300 being the cutoff score for passage. Our grads scored between 483 and 869, with a mean of 664.32 and a median of 652. Only one scored below 500!

Performance compared to national statistics was again very encouraging.

<i>Section</i>	<i>MCO Z-Score</i>
Full Part	+ .55
CSE	+ .34
VRICS	+ .49
PMP	+ .49

Good work!

# Appendix L

# PROGRAM REVIEW PANEL EVALUATION

Program: OPTOMETRY

Instructions: Circle the number which most closely describes the program you are evaluating.

1. **Student Perception of Instruction**

Average Score 4.25



Currently enrolled students rate instructional effectiveness as extremely high.

Currently enrolled students rate the instructional effectiveness as below average.

2. **Student Satisfaction with Program**

Average Score 4



Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.

Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. **Advisory Committee Perceptions of Program**

Average Score 4.25



Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.

Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. **Demand for Graduates**

Average Score 4.9

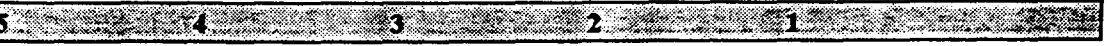


Graduates easily find employment in field.

Graduates are sometimes forced to find positions out of their field.

5. **Use of Information on Labor Market**

Average Score 3.8



The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program.

The faculty and administrators do not use labor market data in planning or evaluating the program.

6. Use of Profession/Industry Standards

Average Score 4.25

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. Use of Student Follow-up Information

Average Score 3.75

Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

Student follow-up information has not been collected for use in evaluating this program.

8. Relevance of Supportive Courses

Average Score 3.6

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Supportive course content reflects no planned approach to meeting needs of students in this program.

9. Qualifications of Administrators and Supervisors

Average Score 3.5

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. Instructional Staffing

Average Score 3.5

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. Facilities

Average Score 1.75

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.



12. **Scheduling of Instructional Facilities**

Average Score 4

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. **Equipment**

Average Score 2.6

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. **Adaption of Instruction**

Average Score 3.75

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. **Adequate and Availability of Instructional Materials and Supplies**

Average Score 3.6

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

1

2

3

**FIRST PROFESSIONAL YEAR**

	Credits
<b>Fall Semester</b>	
OPTM 401 The Practice of Optometry	2
OPTM 410 Geometric, Physical & Visual Optics I	5
BIOL 431 Human Anatomy & Physiology	5
OPTM 430 Neuroanatomy	3
BIOL 480 Microbiology for Optometry	2
OPTM 420 Ocular Health Assessment	3
	<hr/>
	20

**Winter Semester**

OPTM 440 Optical & Motor Aspects of Human Vision	6
OPTM 411 Geometric, Physical & Visual Optics II	5
OPTM 431 Ocular Anatomy & Physiology	4
OPTM 421 Assessment of the Eye's Refractive Status and Oculomotor System - Testing	5
	<hr/>
	20

**SECOND PROFESSIONAL YEAR**

	Credits
<b>Fall Semester</b>	
OPTM 532 General Pathology	4
OPTM 541 Visual Information Processing & Perception	6
OPTM 550 Ocular Disease I	4
OPTM 512 Ophthalmic Optics	3
OPTM 522 Assessment of the Oculomotor System - Analysis	4
OPTM 580 Optometry Clinic II-1	1
	<hr/>
	22

**Winter Semester**

OPTM 533 General & Ocular Pharmacology	5
OPTM 560 Contact Lenses I	3
OPTM 551 Ocular Disease II	3
OPTM 581 Optometry Clinic II-2	1
OPTM 513 Ophthalmic Optics & Environmental Vision	4
OPTM 523 Strabismus & Vision Therapy	4
	<hr/>
	20

### THIRD PROFESSIONAL YEAR

	Credits
Fall Semester	
OPTM 602 Public Health Aspects of the Practice of Optometry	3
OPTM 661 Contact Lenses II	4
OPTM 652 Clinical Neuroptometry	2
OPTM 682 Optometry Clinic III-1	6
OPTM 624 Pediatric Vision	2
OPTM 642 Visual Fields	3
	<hr/>
	20

### Winter Semester

OPTM 603 Ethics & Management of the Practice of Optometry	4
OPTM 643 Geriatric Vision & Low Vision	4
OPTM 634 Pharmacological Management of Ocular Conditions	2
OPTM 683 Optometry Clinic III-2	6
OPTM 625 Developmental Aspects of Vision	3
OPTM 653 Ocular Disease III	2
	<hr/>
	21

### FOURTH PROFESSIONAL YEAR

	Credits
Summer Semester	
OPTM 784 Clinical Practice in Optometry I	13
	<hr/>
	13

### Fall Semester

OPTM 785 Clinical Practice in Optometry II	13
	<hr/>
	13

### Winter Semester

OPTM 786 Clinical Practice in Optometry III	13
OPTM 797 Special Studies	1 - 4
	<hr/>
	14 - 17

This curriculum is implemented by a diverse and highly qualified faculty (see Appendix J).

Feedback about the curriculum was received from several sources during the surveys for this report. The advisory committee, faculty, graduates and students all contributed opinions regarding the appropriateness and effectiveness of the current curriculum.

On the advisory committee survey, the committee rated the MCO didactic curriculum as 4.0 where 1 was very poor and 5 was very good. They rated the clinical curriculum 4.7, which was the highest rating given by the advisory committee. The only significant comment offered was that MCO had a "well balanced curriculum which allows the student/doctor to enter any mode of practice."

Information relative to the appropriateness of the current O.D. curriculum of the Michigan College of Optometry was obtained from the survey of the faculty. The faculty strongly felt that the current curriculum was appropriate for achieving the College's mission of training entry level clinical optometrists. They felt the curriculum was current, but did strongly feel that even more clinical education might be appropriate.

A significant portion of the alumni survey was devoted to the adequacy of the curriculum viewed retrospectively. Eight separate content areas were rated from "very adequate" to "not adequate" by the graduates. The following table summarizes their responses in percentages.

	<b>Very Adequate</b>	<b>Adequate</b>	<b>Somewhat Adequate</b>	<b>Not Adequate</b>
<b>Basic Sciences</b>	57	41	2	0
<b>Binocular Vision</b>	25	53	18	4
<b>Contact Lenses</b>	37	47	14	2
<b>Pediatrics</b>	20	51	23	6
<b>Disease</b>	46	43	9	2
<b>Practice Management</b>	3	32	40	25
<b>Primary Care</b>	56	42	2	0
<b>Life Long Learning</b>	19	56	22	3

It is evident from scanning the alumni responses that their only major concern was in the area of practice management. However, to quote one of several comments on the subject, "I don't think it's possible to properly educate in this area. Experience will teach you."

A few of the current optometry students offered suggestions about the curriculum in their survey responses. As would seem logical, most of their offerings were quite specific. The following examples both typify and summarize their statements.

- "pharmacology needs to be totally reworked"
- "second year clinic needs patients"
- the optometry curriculum is "boring and redundant"
- there is "not enough interactive learning"
- "outside profs disappointing"
- "past (III year winter) semester filled with a lot of 'filler' classes. I feel the time could have been spent better"
- "need better variety of clinic patients II and III year"
- "more emphasis needs to be placed on the clinical aspect of training"
- "III year curriculum needs to be totally reworked"
- "III year lecture time badly misused"

Considering the overall outcomes from all these survey groups, the optometry curriculum as a whole could be characterized as effective and current in meeting the mission of MCO.

Another outcome that is an indication of the strength of both the admissions process and the curriculum is the performance of the College's students on examinations administered by the National Board of Examiners in Optometry. This assessment is a sequence of three examinations: Basic Science, typically taken in August between the second and third years; Clinical Science, typically taken in December of the fourth year; and Part III, a clinical exam, taken at the end of the fourth year. Michigan College of Optometry students consistently perform above the national average on these exams, both in pass rates and in test scores. The past five years' performance is summarized on the following table.

		Basic Science		Clinical Science		Part III	
Pass Rates =		MCO	National	MCO	National	MCO	National
Date	n						
August, 1992	12/5	75	67.6	100	87.8		
May, 1993	14					79	96
December, 1993	30			100			
May, 1994	14					93	94
August, 1994	35	83	65				
April, 1995	2	100					
August, 1995	37	81	60.7				
December, 1995	32			100	93		
April, 1996	6/1	67	63.1	100	58		
May, 1996	15					100	94.7
August, 1996	34	94	64.3				
December, 1996	33			100	90.1		
May, 1997	11					100	93.9
March, 1998	5	80					

Some representative analyses including Z-score performance on the various sections of these tests are in Appendix K.

Additional significant outcomes after graduation from MCO are more difficult to quantify, as they are not reported to the institution like National Board exam scores are. These would include passage rates of state board exam, competition for and completion of residencies and graduate programs, and, where it occurs, competition for jobs. Placement rates are consistently high, indicating that MCO graduates do pass state licensing exams in states they consider suitable for living. Significant numbers of alumni have completed additional education, either in a residency or graduate school. Twenty-five (25) respondents to the alumni survey reported either completion of a residency or an additional degree. Anecdotal comments from their supervisors in these programs are universally positive regarding their level of preparation. As stated previously, MCO alums are currently on the staffs of at least 9 colleges of optometry, including one Dean.

Many curricular aspects came out in the SWOT analysis. A number of curriculum items were strengths. The faculty were described as well balanced and cooperative. The curriculum in general was listed as a strength of MCO. The clinical education both on- and off-campus was cited in the strength category, as was the cooperation of optometry and opticianry students in the dispensary.

In the SWOT analysis, some curriculum items were listed as weaknesses. Included in this category were concerns over the lack of experiential learning in the curriculum, an aging faculty, low patient numbers in the on-campus clinic, and a relative lack of research at MCO fostered by a poor University research atmosphere.

The possibility of a Grand Rapids clinic was seen to be an opportunity, as were the alumni, the hiring of a new Vice President for Academic Affairs, and the continuing opportunities at MCO for curricular innovation.

Threats to the program that were listed included the continuing rumors of moving either the College of Pharmacy or College of Optometry or both to another institution. Also considered a threat was the aging of the faculty. Managed care, VSP, and the expansion of local private practices were cited as threats to the clinic.

As the statutory scope of the practice of the profession of optometry has changed over the past couple decades, the curriculum of MCO has had to keep pace. It is likely that the scope of practice will continue to expand, as it is in the direction of laser utilization. If familiarity with and use of lasers for ocular procedures becomes more commonplace in optometry, MCO will have to acquire this equipment and expertise to maintain a relevant curriculum.



## **Section 10:**

# **Enrollment Trends Over Past 5 Years**

## **ENROLLMENT TRENDS**

Enrollment discussions focus on the students – how do we get them here, what are the requirements for admittance, how do we keep them here, and what are the demographic patterns that emerge over time in the enrolled students.

First of all, frequently mentioned in SWOT analyses and elsewhere as a strength of the program at MCO was the student body. Such student related items as small class size that results in low faculty/student ratios in labs and clinic, our selectivity, the admissions process that includes interviews, and the activity and involvement of students in professional and volunteer organizations were cited as strong points of MCO. Repeating what the students said in their survey, one of the main reasons many of them chose MCO was the small classes and low faculty/student ratio. The students were also seen as an opportunity because of their level of competence and enthusiasm.

Regardless of the enrollment trends on the FSU campus as a whole, MCO has maintained both a level enrollment and a steady or increasing applicant pool.

## **RECRUITMENT**

Recruitment for the Michigan College of Optometry includes a number of things. The College has exhaustive packets of information detailing most aspects of optometry and the admissions process which are mailed to any prospective student who calls or writes and requests information. Several optometry faculty are assigned as pre-optometry advisors who meet on an individual basis with any interested student who makes an appointment to come and ask about prerequisites, the admissions process, or any aspect of optometry in general. These students also receive a building tour during that visit. Representatives from the College are seen at health fairs and college nights providing brochures to interested students and parents and answering questions.

One very useful tool for recruitment, particularly at FSU, is the pre-optometry club. This organization gives prospective optometry students insights into the profession, the application and interview process, and many other areas. It also gives students a chance to commiserate with other students with like interests. Pre-optometry clubs have also been established at several other Michigan public universities through the efforts of the MCO student recruitment committee.

MCO has a good reputation within the profession. Much of the information prospective students receive about the profession and choices of professional schools comes from their local optometrist. Thus, MCO must work to maintain its reputation within optometry as a quality program, especially since MCO alumni are still a small minority of the practitioners in Michigan. One built in advantage MCO has is the power of the purse strings, being the lone optometry program in the state. Tuition costs being what they are at other institutions, the expense of going elsewhere for a qualified Michigan resident can be prohibitive. Many students in their survey cited lower tuition as a principle factor in their decision to go to MCO.

A couple of recent developments at FSU can be cited as positive changes for the applicant pool of MCO. Overall, FSU appears to be headed toward increasing its academic standards. The recent changes in admissions standards and the establishment of the Honors Program both will have a positive influence on attracting and retaining quality students who may be eligible for MCO enrollment.

The student recruitment committee of the faculty has experienced frustrations over the years in trying to enhance the quality of an already good applicant pool. Student recruitment is seen as a very low priority for MCO. Resources are required to recruit high quality students and minorities, an area where MCO is noticeably weak. The best way to stimulate these students to come to MCO is with money in the form of scholarships. Every year MCO competes with other optometry schools, particularly the Ohio State University, Illinois College of Optometry (ICO), and Indiana University. Top caliber students who are accepted at MCO but who can, because of their qualifications, get in almost anywhere are regularly bought away from this College by scholarships from these competing institutions, particularly Ohio State. Additionally, when touring other institutions such as ICO, it becomes readily apparent how poor MCO's facilities appear. MCO is losing students we would like to have.

#### APPLICATION INSTRUCTIONS

To be admitted, a student must successfully complete the pre-optometry prerequisite courses (see Appendix H).

Applications for admissions to the Michigan College of Optometry are accepted beginning October 1 and must be completed by the February 1 deadline. Early completion of the application process is encouraged. In addition to the application form and the nominal non-refundable application fee, the candidate seeking acceptance to the program must furnish the following materials to the Ferris State University Office of Admissions:

1. Official transcript of high school grades to include rank in the graduating class and ACT and/or SAT scores.
2. Official transcript of all college courses completed (additional transcripts should be supplied as subsequent courses are added).
3. Letters of recommendation from three professional persons, one of whom should be a college instructor and one an optometrist. The third letter should come from another professional who is neither an instructor or an optometrist. Special forms will be provided for these letters and their use is required except in unusual circumstances. A letter from a college pre-professional committee will serve as the "instructor's" letter and will replace that particular form.
4. Results from the Optometry Admission Test (OAT).
5. A brief essay written by the applicant stating the applicant's reasons for desiring to become an optometrist. (Suggested maximum length: 2 pages, double spaced.)

The application is not considered complete until all of the above materials are present in the applicant's file in the Office of Admissions. The Optometry Admissions Committee will review only those applications which are completed by February 1. The admissions committee recommends early application so that the applicant may receive the soonest possible consideration.

Candidates may be invited to the campus for a personal interview with the members of the Optometry Admissions Committee. After the interviews are completed, the Admissions Committee makes the decisions as to which students will be offered one of the 32 seats available, who will be on the alternate list, and who is considered underqualified. In the SWOT analysis, the fact the MCO still utilizes face-to-face interviews in the admissions process was mentioned as a strength.

MCO will, on occasion, accept a transfer student. This is not easily accomplished, since curricula vary from institution to institution, and has happened only twice at MCO. The College will also accept with advanced standing students who have obtained some optometric education in another country. Thus far this has applied to applicants who have a bacheloriate in optometry under the British system and who wish to get an O.D. degree so they can practice in the U.S. The O.D. is the minimum degree requirement for licensure to practice in any of the states. The College has admitted and graduated five such students, two from Britain and three from India, and has two more Indian students coming this fall into the third year of the program.

## RETENTION

The Michigan College of Optometry has been very fortunate to retain the vast majority of its admitted students. Because it is a professional program, applicants have given considerable thought to their choice prior to application. They have been working as an undergraduate for at least three years to complete prerequisite courses. They are forced to think even further about optometry as a career for them by the admissions process, particularly their essay and the interview. As a result, very few students come into the program and then "change their mind" and leave for something else.

The students MCO accepts each year have demonstrated great academic success in difficult courses. Consequently, few of them fail academically once studying to be optometrists. The low faculty/student ratio and resultant individual attention from faculty helps students who may be struggling in particular courses to achieve success and mastery. On occasion, a student in academic difficulty has an individualized plan created for them by the Academic Review Committee of the College to allow them to graduate at a later time. Usually this constitutes a five-year program for that student. However, despite these efforts, students are on occasion dismissed from the program for academic reasons. Sometimes, owing to health or childbearing concerns, an extension of one semester to complete clinical intern assignments is arranged.

As a result of all these factors, as stated previously, ninety-seven percent of the students enrolled in the classes to graduate between 1979-1998 completed the program and received their Doctor of Optometry degree.

## TRENDS

The following class profiles for the past five entering classes reveal the general makeup of optometry students at MCO. The class size has remained stable, and the median age of the students is also stable, reflecting the traditional nature of most students. Each class, however, has a few older, non-traditional students as well. Some of these students are making a career change, and enroll in MCO with Master's level education, and one current student has a Ph.D. and was a college faculty member previously.

Females, on average, constitute 59% of the enrolled students. This is slightly above the national average of 50% of entering students. The academic profile is consistently high, with mean undergraduate entering GPAs of approximately 3.5.

The number of applicants has averaged 246, reaching a high of 297 this past year. 33% of these applicants have been from Michigan, yet 83% on average of the enrolled students are Michigan residents. There has been a slight down trend in the number of students who did their undergraduate work at FSU to represent about one-third of the class. This fall's entering students come from 18 different undergraduate institutions.

TO: Whom It May Concern  
FROM: Thomas R. Colladay, Ph.D., Associate Dean  
Student Academic Affairs  
Ferris State University, Michigan College of Optometry  
RE: Profile of 1998 Entering Class  
DATE: April 14, 1998

**First Year Class Profile**

**Class Size = 32**

**Demographic Profile**

**Age**

- a. Range ..... 20 - 38
- b. Mean ..... 23
- c. Media..... 22
- d. Mode..... 21

**Sex**

- a. Male ..... 15 (47%)
- b. Female..... 17 (53%)

**Race**

- a. Non-Minority ..... 28
- b. Minority..... 4

**Academic Profile**

**OAT Examination (200 to 400)**

- a. High Mean ..... 370
- b. Low Mean ..... 280
- c. Overall Mean ..... 330
- d. Mean OAT scores by examination category:

AVG 328, QR 323, RC 336, PHY 321,

BIO 315, GCHM 331, OCHM 329, SCI 329

**Grade Point Averages**

**a. Pre-Optometry GPA**

- 1. High ..... 3.99
- 2. Low ..... 3.05
- 3. Mean..... 3.48

- b. Overall GPA
  - 1. High ..... 3.97
  - 2. Low ..... 2.95
  - 3. Mean ..... 3.51

**General Information Profile**

**Applicants**

- a. Total Number..... 297
- b. Michigan Applicants..... 87
- c. Non-Michigan Applicants..... 210
- d. Foreign Applicants ..... 36
- e. Female Applicants ..... 150
- f. Male Applicants..... 147
- g. Minority Applicants ..... 102
- h. Caucasian Applicants ..... 166
- i. Non-designated..... 29
- j. Number of Interviews ..... 60
- k. Resident Accepts ..... 24
- l. Minority Accepts ..... 4
- m. Non-Minority Accepts ..... 30

**Pre-Optometry Level/Degrees**

- a. 3 Year Accepts ..... 11
- b. 4 Year Accepts Without Bachelor's Degree .... 11
- c. Accepts with Bachelor's Degree..... 10
- d. Master's Degree ..... 0
- e. Doctorate Degree..... 0

**Summary of Principle Undergraduate College Attended**

- a. Aquinas College ..... 1
- b. Augustana College ..... 1
- c. Calvin College..... 1
- d. College of Dupage ..... 1
- e. Ferris State University..... 10
- f. Florida Atlantic University ..... 1
- g. Grand Valley State University ..... 1
- h. Michigan State University ..... 4
- i. Oakland University ..... 1
- j. Saint Cloud State University ..... 1
- k. South West State University ..... 1
- l. State University of New York..... 1
- m. University of Michigan ..... 3
- n. University of North Dakota..... 1
- o. University of Waterloo..... 1
- p. University of Wisconsin ..... 1
- q. Wayne State University..... 1
- r. Western Michigan University..... 1



TO: Whom It May Concern  
FROM: Thomas R. Colladay, Ph.D., Associate Dean  
Student Academic Affairs  
Ferris State University, Michigan College of Optometry  
RE: Profile of 1997 Entering Class  
DATE: April 17, 1997

**First Year Class Profile**

**Class Size = 32**

**Demographic Profile**

**Age**

- a. Range ..... 20 - 26
- b. Mean ..... 22
- c. Media..... 22
- d. Mode..... 22

**Sex**

- a. Male ..... 10 (31%)
- b. Female ..... 22 (69%)

**Race**

- a. Non-Minority ..... 29
- b. Minority..... 3

**Academic Profile**

**OAT Examination (200 to 400)**

- a. High Mean ..... 370
- b. Low Mean ..... 300
- c. Overall Mean ..... 332
- d. Mean OAT scores by examination category:

AVG 332, QR 321, RC 339, PHY 323,

BIO 337, GCHM 328, OCHM 332, SCI 337

**Grade Point Averages**

**a. Pre-Optometry GPA**

- 1. High..... 4.00
- 2. Low..... 2.81
- 3. Mean..... 3.44

b. Overall GPA	
1. High	3.95
2. Low	3.08
3. Mean	3.46

### General Information Profile

#### Applicants

a. Total Number	239
b. Michigan Applicants	82
c. Non-Michigan Applicants	134
d. Foreign Applicants	23
e. Female Applicants	113
f. Male Applicants	126
g. Minority Applicants	73
h. Caucasian Applicants	139
I. Undesignated	27
i. Number of Interviews	63
j. Resident Accepts	24
k. Minority Accepts	3
l. Non-Minority Accepts	29

#### Pre-Optometry Level/Degrees

a. 3 Year Accepts	8
b. 4 Year Accepts Without Bachelor's Degree	4
c. Accepts with Bachelor's Degree	20
d. Master's Degree	0
e. Doctorate Degree	0

#### Summary of Principle Undergraduate College Attended

a. Central Michigan University	3
b. Colorado State University	1
c. Ferris State University	9
d. Michigan State University	3
e. Northern Michigan University	1
f. North West College - Wyoming	1
g. Ohio University	1
h. Rensselaer Polytechnic Institute - New York	1
i. University of Iowa	1
j. University of Michigan - Ann Arbor	3
k. University North Carolina	1
l. University of South Dakota	2
m. University of Wisconsin	1
n. Valley City State University	1
o. Wayne State University	3

TO: Whom It May Concern  
FROM: Thomas R. Colladay, Ph.D., Associate Dean  
Student Academic Affairs  
Ferris State University, Michigan College of Optometry

RE: Profile of 1996 Entering Class

DATE: September 11, 1996

**First Year Class Profile**

**Class Size = 32**

**Demographic Profile**

**Age**

- a. Range ..... 20 - 35
- b. Mean ..... 23
- c. Media..... 22
- d. Mode..... 22

**Sex**

- a. Male ..... 12 (37%)
- b. Female ..... 20 (63%)

**Race**

- a. Non-Minority..... 29
- b. Minority..... 3

**Academic Profile**

**OAT Examination (200 to 400)**

- a. High Mean ..... 390
- b. Low Mean ..... 270
- c. Overall Mean ..... 320
- d. Mean OAT scores by examination category:

AVG 320, QR 319, RC 324, PHY 311,

BIO 313, GCHM 322, OCHM 333, SCI 323

**Grade Point Averages**

- a. Pre-Optometry GPA
  - 1. High..... 4.00
  - 2. Low..... 2.93
  - 3. Mean..... 3.46

- b. Overall GPA
  - 1. High ..... 4.00
  - 2. Low ..... 2.95
  - 3. Mean ..... 3.47

**General Information Profile**

**Applicants**

- a. Total Number..... 242
- b. Michigan Applicants..... 74
- c. Non-Michigan Applicants..... 138
- d. Foreign Applicants..... 30
- e. Female Applicants ..... 126
- f. Male Applicants..... 116
- g. Minority Applicants ..... 79
- h. Caucasian Applicants ..... 163
- i. Number of Interviews ..... 58
- j. Resident Accepts ..... 29
- k. Minority Accepts ..... 3
- l. Non-Minority Accepts..... 3

**Pre-Optometry Level/Degrees**

- a. 3 Year Accepts.....11
- b. 4 Year Accepts Without Bachelor's Degree 2
- c. Accepts with Bachelor's Degree..... 19
- d. Master's Degree ..... 0
- e. Doctorate Degree..... 0

**Summary of Principle Undergraduate College Attended**

- a. Adrian College..... 1
- b. Albion College ..... 1
- c. Alma College ..... 1
- d. Central Michigan University..... 4
- e. Eastern Michigan University..... 1
- f. Evangel College - Missouri ..... 1
- g. Ferris State University..... 10
- h. Madonna University ..... 1
- i. Michigan State University ..... 4
- j. Moorhead State University..... 1
- k. South Dakota State University ..... 1
- l. University of Michigan..... 5
- m. Western Michigan University ..... 1

TO: Whom It May Concern  
FROM: Thomas R. Colladay, Ph.D., Associate Dean  
Student Academic Affairs  
Ferris State University  
College of Optometry  
RE: Profile of 1995 Entering Class  
DATE: July 1, 1995

First Year Class Profile

Class Size = 32

Demographic Profile

Age

- a. Range . . . . . 21 - 46
- b. Mean . . . . . 25
- c. Median . . . . . 22
- d. Mode . . . . . 21

Sex

- a. Male . . . . . 17 (53%)
- b. Female . . . . . 15 (47%)

Race

- a. Non-Minority . . . . . 28
- b. Minority . . . . . 4

Academic Profile

OAT Examination (200 to 400)

- a. High Mean . . . . . 360
- b. Low Mean . . . . . 300
- c. Overall Mean . . . . . 333
- d. Mean OAT scores by examination category:

AVG 333, QR 336, RC 333, PHY 330,

BIO 324, GCHM 329, OCHM 345, SCI 337

## Grade Point Averages

- a. Pre-Optometry GPA
  - 1. High . . . . . 3.91
  - 2. Low . . . . . 2.79
  - 3. Mean . . . . . 3.42
  
- b. Overall GPA
  - 1. High . . . . . 3.91
  - 2. Low . . . . . 3.01
  - 3. Mean . . . . . 3.50

## General Information Profile

### Applicants

- a. Total Number . . . . . 229
- b. Michigan Applicants . . . . . 79
- c. Minority Applicants . . . . . 64
- d. Female Applicants . . . . . 118
- e. Male Applicants . . . . . 111
- f. Regional Applicants . . . . . 21
- g. Non-Regional Applicants . . . . . 100
- h. Foreign Applicants . . . . . 29
- i. Number of Interviews . . . . . 56
- j. Resident Accepts . . . . . 27
- k. Minority Accepts . . . . . 4
- l. Non-Resident Accepts . . . . . 5  
(Canada = 2, Colorado = 1, New York = 1, Wisconsin = 1 )

### Pre-Optometry Level/Degrees

- a. 3 Year Accepts . . . . . 16
- b. 4 Year Accepts Without Bachelor's Degree . . . . . 9
- c. Accepts with Bachelor's Degree . . . . . 6
- d. Master's Degree . . . . . 0
- e. Doctorate Degree . . . . . 1

### Summary of Principle Undergraduate College Attended

- a. Aquinas College . . . . . 1
- b. Calvin College . . . . . 1
- c. Central Michigan University . . . . . 1
- d. Colorado State University . . . . . 1
- e. Ferris State University . . . . . 15
- f. Grand Valley State University . . . . . 2
- g. Marion College . . . . . 1
- h. Michigan State University . . . . . 3
- i. Oakland University . . . . . 1
- j. University California, L.A. . . . . 1
- k. University Michigan, Ann Arbor . . . . . 1
- l. University of Colorado . . . . . 1
- m. University of Waterloo . . . . . 2
- n. Western Michigan University . . . . . 1

To: Whom It May Concern

From: Thomas R. Colladay, Ph.D., Associate Dean, Student Academic Affairs  
Ferris State University  
College of Optometry

Re: Profile of 1994 Entering Class

Date: September 15, 1994

**First Year Class Profile**

**Class Size = 31**

**Demographic Profile**

**Age**

- a. Range . . . . . 20 - 35
- b. Mean . . . . . 22
- c. Median . . . . . 21
- d. Mode . . . . . 21

**Sex**

- a. Male . . . . . 12 (39%)
- b. Female . . . . . 19 (61%)

**Race**

- a. Caucasian . . . . . 30
- b. Minority . . . . . 1

**Academic Profile**

**OAT Examination (200 to 400)**

- a. High Mean . . . . . 380
- b. Low Mean . . . . . 270
- c. Overall Mean . . . . . 325
- d. Mean OAT scores by examination category:

**AVG 325, OR 316, RC 338, PHY 316,**

**BIO 313, GCHM 323, OCHM 332, SCI 323**

## Grade Point Averages

a. Pre-Optometry GPA	
1. High . . . . .	3.97
2. Low . . . . .	3.14
3. Mean . . . . .	3.50
b. Overall GPA	
1. High . . . . .	3.98
2. Low . . . . .	3.20
3. Mean . . . . .	3.51

## General Information Profile

### Applicants

a. Total Number . . . . .	225
b. Michigan Applicants . . . . .	90
c. Minority Applicants . . . . .	52
d. Female Applicants . . . . .	113
e. Male Applicants . . . . .	112
f. Regional Applicants . . . . .	14
g. Non-Regional Applicants . . . . .	179
h. Foreign Applicants . . . . .	32
i. Number of Interviews . . . . .	51
j. Resident Accepts . . . . .	28
k. Non-Resident Accepts . . . . .	3
(Canada = 3)	

### Pre-Optometry Level/Degrees

a. 3 Year Accepts . . . . .	12
b. 4 Year Accepts Without Bachelor's Degree .	13
c. Accepts With Bachelor's Degree . . . . .	6
d. Master's Degree . . . . .	0

### Summary of Principle Undergraduate College Attended

a. Arizona State University . . . . .	1
b. Brock University--Canada . . . . .	1
c. Ferris State University . . . . .	16
d. Michigan State University . . . . .	4
e. Oakland University . . . . .	4
f. The Defiance College . . . . .	1
g. University of California . . . . .	1
h. University of Waterloo--Canada . . . . .	2
i. Western Michigan University . . . . .	1



## **Section 11:**

# **Program Productivity/ Cost**

# FERRIS STATE UNIVERSITY

## Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by College

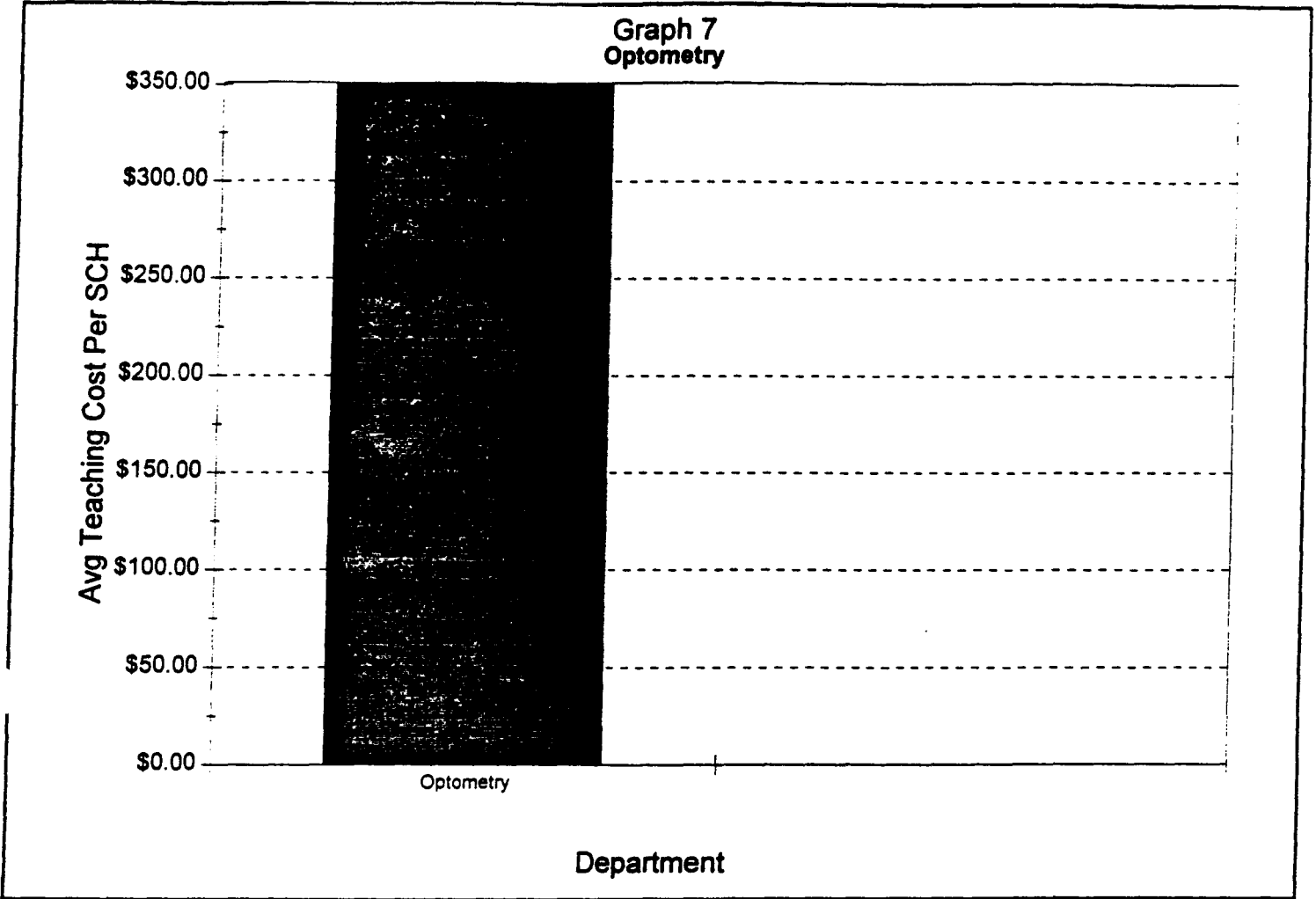
College	Year	<u>Student Credit Hours</u>				<u>Full Time Equated Faculty</u>				<u>SCH/FTEF</u>			
		Summer	Fall	Winter	F + W	Summer	Fall	Winter	Avg F + W (b)	Summer	Fall	Winter	F + W (a / b)
College of Optometry	1993-94	0.00	2,841.00	3,014.00	5,855.00	0.00	21.99	23.99	22.99		129.20	125.62	254.66
College of Optometry	1994-95	0.00	2,841.00	3,014.00	5,855.00	0.00	21.99	23.99	22.99		129.20	125.62	254.66
College of Optometry	1995-96	471.00	2,465.00	2,628.00	5,093.00	14.90	24.84	24.93	24.89	31.61	99.24	105.41	204.66
College of Optometry	1996-97	458.00	2,431.00	2,661.00	5,092.00	13.88	22.27	26.80	24.54	33.00	109.14	99.27	207.50
College of Optometry	1997-98	484.00	2,399.00	2,631.00	5,030.00	1.00	27.43	27.57	27.50	484.00	87.44	95.42	182.88

# FERRIS STATE UNIVERSITY

## Student Credit Hours (SCH), Full Time Equated Faculty (FTEF) and SCH/FTEF Aggregated by University by Department within College

Department	Year	<u>Student Credit Hours</u>				<u>Full Time Equated Faculty</u>				<u>SCH/FTEF</u>			
		Summer	Fall	Winter	F + W	Summer	Fall	Winter	Avg F + W	Summer	Fall	Winter	F + W
<u>College of Optometry</u>													
Optometry	1993-94	0.00	2,163.00	2,431.00	4,594.00	0.00	15.94	19.10	17.52		135.72	127.27	262.23
Optometry	1994-95	380.00	2,173.00	2,377.00	4,550.00	16.47	18.82	20.58	19.70	23.07	115.48	115.51	230.99
Optometry	1995-96	429.00	2,203.00	2,424.00	4,627.00	13.90	19.41	20.07	19.74	30.86	113.51	120.76	234.38
Optometry	1996-97	430.00	2,209.00	2,517.00	4,726.00	12.88	18.59	24.80	21.70	33.39	118.82	101.47	217.81
Optometry	1997-98	442.00	2,145.00	2,447.00	4,592.00	0.00	23.75	25.57	24.66		90.31	95.69	186.19

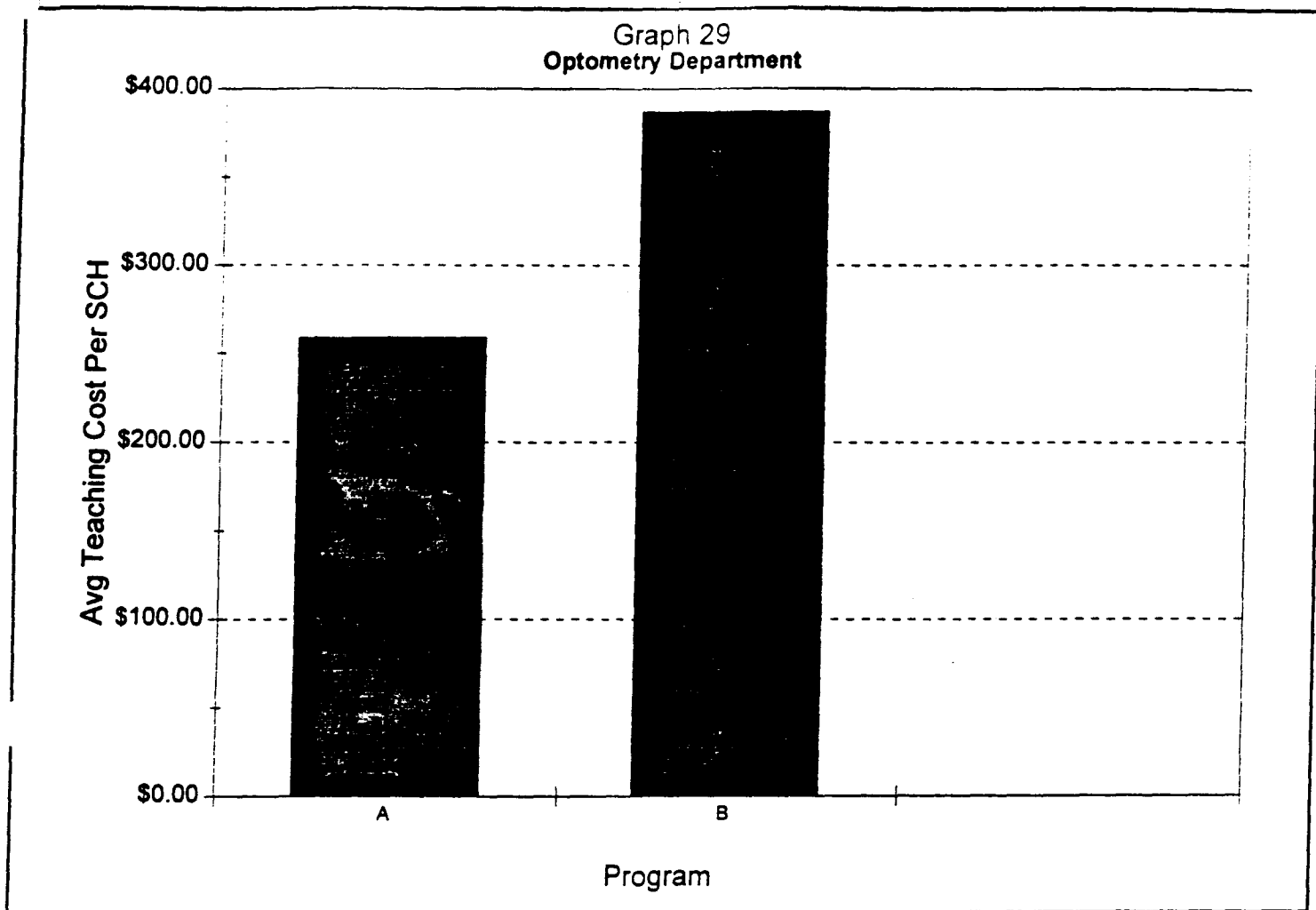
**Average Teaching Cost Per SCH - Optometry  
1996 - 1997 Data**



Optometry

**\$349.48**

# Average Teaching Cost Per SCH - Programs in the Optometry Dept 1996 - 1997 Data



A	Opticianry AAS	\$259.11
B	Optometry OD (Yrs 3,4,5 & 6)	\$387.18

# Ferris State University

## Program Teaching Cost 1996 - 1997 (Summer, Fall, and Winter)

Program Name: Optometry OD (Yrs 3,4,5 & 6)

College : Optometry

Department : Optometry

Total Program Teaching Cost (Assumes a student will complete program in one year) **\$63,110.81**

Cost per SCH (Average for program) **\$387.18**

Program Credits Required (Total credits to graduate) **163**

Course ID	Level	FSU's Teaching Cost	FSU's Student Credit Hours (SCH) Produced	Teaching Cost/SCH	Credits Required	Program Teaching Cost
BIOL431	U	\$31,409.77	160.00	\$196.31	5.00	\$981.56
BIOL480	U	\$5,509.95	64.00	\$86.09	2.00	\$172.19
OPTM401	U	\$17,932.19	64.00	\$280.19	2.00	\$560.38
OPTM410	U	\$34,757.97	296.00	\$117.43	5.00	\$587.13
OPTM411	U	\$34,467.95	304.00	\$113.38	5.00	\$566.91
OPTM420	U	\$54,587.52	138.88	\$393.06	3.00	\$1,179.17
OPTM421	U	\$87,901.95	208.00	\$422.61	5.00	\$2,113.03
OPTM430	U	\$15,289.45	96.00	\$159.27	3.00	\$477.80
OPTM431	U	\$24,712.38	128.00	\$193.07	4.00	\$772.26
OPTM440	U	\$39,973.76	362.72	\$110.21	6.00	\$661.23
OPTM512	G	\$54,715.20	96.00	\$569.95	3.00	\$1,709.85
OPTM513	G	\$65,407.96	152.16	\$429.86	4.00	\$1,719.45
OPTM522	G	\$34,678.57	232.50	\$149.16	4.00	\$596.62
OPTM523	G	\$32,172.72	163.84	\$196.37	4.00	\$785.47
OPTM532	G	\$14,791.21	128.00	\$115.56	4.00	\$462.23
OPTM533	G	\$25,356.13	160.00	\$158.48	5.00	\$792.38
OPTM541	G	\$38,762.20	362.72	\$106.87	6.00	\$641.19
OPTM550	G	\$28,723.84	240.00	\$119.68	4.00	\$478.73
OPTM551	G	\$19,032.29	96.00	\$198.25	3.00	\$594.76
OPTM560	G	\$48,343.21	96.00	\$503.58	3.00	\$1,510.73
OPTM580	G	\$9,799.95	32.00	\$306.25	1.00	\$306.25
OPTM581	G	\$50,797.79	32.00	\$1,587.43	1.00	\$1,587.43
OPTM602	G	\$12,969.31	99.00	\$131.00	3.00	\$393.01
OPTM603	G	\$35,976.10	132.00	\$272.55	4.00	\$1,090.18
OPTM624	G	\$9,967.27	66.00	\$151.02	2.00	\$302.04
OPTM625	G	\$19,961.12	173.50	\$115.05	3.00	\$345.15
OPTM634	G	\$16,422.29	66.00	\$248.82	2.00	\$497.65
OPTM642	G	\$11,246.24	99.00	\$113.60	3.00	\$340.80
OPTM643	G	\$17,816.45	132.00	\$134.97	4.00	\$539.89
OPTM652	G	\$12,229.53	66.00	\$185.30	2.00	\$370.59
OPTM653	G	\$8,908.23	66.00	\$134.97	2.00	\$269.95
OPTM661	G	\$31,598.31	132.00	\$239.38	4.00	\$957.52
OPTM682	G	\$106,473.04	198.00	\$537.74	6.00	\$3,226.46
OPTM683	G	\$171,660.44	198.00	\$866.97	6.00	\$5,201.83
OPTM784	G	\$417,221.66	429.00	\$972.54	13.00	\$12,643.08
OPTM785	G	\$173,391.79	429.00	\$404.18	13.00	\$5,254.30
OPTM786	G	\$394,683.05	416.00	\$948.76	13.00	\$12,333.85
OPTM797	G	\$11,238.24	128.00	\$87.80	1.00	\$87.80

## **Section 12:**

# **Conclusions**

## CONCLUSIONS

- The Michigan College of Optometry at Ferris State University continues to meet its mission.
- Graduates of MCO are having a positive impact on the profession of optometry both in Michigan and nationally.
- Alumni are highly satisfied with their current career position.
- Overall, the faculty are pleased with MCO. They were critical of the level of perceived support from central administration of FSU and also of the perceived level of research being done at the College.
- The patient base of the on-campus clinic is below desirable numbers.
- Finances were an issue, both a general trend toward decreasing support of MCO and the problems created by relatively low salaries for the optometric profession, interfering with the recruiting and hiring of qualified faculty and administrators.
- Nationally, the employment picture for optometrists continue to look strong.
- Pennock Hall has outlived its usefulness as the "temporary" home of the Michigan College of Optometry.
- The faculty and administration have been adept at securing equipment through a variety of means to try to keep pace with the challenges of changing technology in eye and vision care.
- Funding does not exist for a regular plan for equipment replacement.
- The application and admissions process of MCO continues to result in highly qualified students.
- Students choose MCO because, being instate, the tuition is low, the classes are small, the faculty/student ratio is low and the reputation of the College is good.
- MCO would be more competitive with the most qualified prospective students if scholarships for entering students were available.
- The curriculum is appropriate for educating primary care optometrists.
- The cost of the Doctor of Optometry program is not out of line for a health profession school.



## **Section 13:**

# **Recommendations**

## **RECOMMENDATIONS**

- The Michigan College of Optometry at Ferris State University is an excellent program which continues to bring distinction to the University. It has some flaws, and as such, this program needs to be enhanced if it is to maintain its quality and improve in delivering health care education for the next millenium.
- The problem of low patient numbers needs to be addressed.
  - MCO needs to improve its clinical atmosphere to both recruit and retain more patients on-campus
  - MCO and FSU need to plan and then implement the development of a satellite clinic, presumably in Grand Rapids.
- MCO and FSU need to plan and then implement the development of a new educational center and clinic on the Big Rapids campus.
- FSU needs to develop a plan for improving the competitiveness of the salaries available to offer prospective optometry faculty and administrators.
- FSU needs to develop a plan for devoting scholarship money for the most qualified potential optometry students so that they will commit to MCO.
- MCO and FSU need to plan and then implement an equipment budget for replacing antiquated items and acquiring state-of-the-art equipment for both educational and patient care needs.

# Appendices

# Appendix A

## **DISTRIBUTION OF MCO GRADUATES 1979-1998**

416 Michigan (70%)  
179 Outside Michigan (30%)

these include:

24 Florida  
15 International (mainly Canadian)  
13 Wisconsin  
10 Texas  
9 Colorado, Minnesota and Ohio  
7 California, Georgia and North Carolina  
6 Arizona, Illinois and New York  
5 Tennessee, South Carolina and Virginia  
4 Kentucky  
3 Indiana, Maryland and Washington  
2 Idaho, Iowa, Nebraska, North Dakota, Oregon and  
Pennsylvania  
1 Alabama, Alaska, Arkansas, Connecticut, Maine,  
Massachusetts, Missouri, Nevada, New Mexico, Rhode  
Island, Utah

# Appendix B

## ADMINISTRATIVE PROGRAM REVIEW

**Program: Doctor of Optometry**

**Date Submitted: 14 November 1997**

**Dean: Alan Lewis**

### Enrollment/Personnel

	Fall 1993	Fall 1994	Fall 1995	Fall 1996	Fall 1997
Tenure Track FTE	19.4	19.4	17.4	17.4	17.4
Overload/Suppl. FTEF	7.8	7.8	7.8	7.8	7.8
Adjunct/Clinical FTEF	22	22	27	27	27
Enrollment on-campus	126	127	130	130	130
Freshman					
Sophomores					
Juniors					
Seniors					
Masters					
Doctoral	126	127	130	130	130
Enrollment Off-camp.					

### Financial

Expenditures	FY93	FY94	FY95	FY96	FY97
S&E	149322	123076	125820	152432	122238
Equipment	10612	19731	0	67584	21000
Gifts & Grants	145182	153350	115111	56079	232498

### Other

	AY 92-93	AY 93-94	AY 94-95	AY 96-96	AY 96-97
Number of Grads-total	30	31	30	32	33
On-campus	30	31	30	32	33
Off-campus	0	0	0	0	0
Placement of Graduates	100	100	100	100	100
Average Salary	NA	NA	NA	NA	NA
Productivity-Acad. Yr. Ave.				234	218
- Summer					
Summer Enrollment	31	30	32	33	32

**Michigan College of Optometry  
1997 Administrative Program Review  
Doctor of Optometry Program**

**1a. Areas of Strength:**

- Applicant pool remains strong at approximately 7.5 applicants per seat
- Licensure rate upon graduation is consistent at 100%
- Scholarly activity by faculty continues to increase in terms of research, publishing, and national recognition as speakers.
- Alumni support is strong
- New medical/surgical clinic appears successful
- Non-general fund support continues to increase

**1b. Areas of Concern:**

- Funding of program remains well below the national average for optometry schools
- Fourth year clinical training relies almost exclusively on contributions-in-kind from off site clinical faculty
- New faculty contract still does not address the unique requirements of faculty with direct patient care responsibilities such as 24 hour coverage, emergency call, licensure requirements, etc.
- Physical facilities are inconvenient and inappropriate as a patient care facility
- WAN access is inadequate to allow telemedicine communications without switching upgrades.
- Increasing clinical responsibilities are straining faculty workloads. New teaching paradigms require additional faculty lines.
- Salaries are falling behind national averages for clinical faculty

**2a. Future Goals:**

- restructure clinic to allow for participation in managed care plans (may require contract relief (1998)
- Expand clinical presence in Grand Rapids area (1998)
- Plan for new facilities for the College and the Clinic (to occupy by 2005). Substantially renovate Pennock Hall in the interim.
- Reduce reliance on adjunct faculty for clinical training (1999)
- Significantly increase continuing education offerings both as a service and as an income source (1998)
- Increase minority enrollment (1998)

**3a. Recommendations:**

- Restore faculty lines lost in fiscal restructuring (\$200,000)
- Increase funding to at least the national average of optometry schools (\$700,000)
- Amend faculty contract to recognize faculty with patient care duties and responsibilities
- Plan for new facilities (\$4,500,000)



# Appendix C

# FERRIS STATE UNIVERSITY

May 27, 1998

Dear Ferris Alum:

Whether you graduated from the Michigan College of Optometry or are old enough to have graduated when Ferris was not yet a University, you are a valuable resource for us.

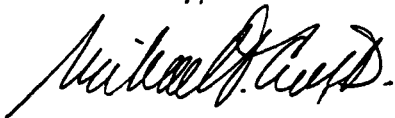
The Michigan College of Optometry is currently conducting a self-study for two purposes: a FSU program review and a renewal of our accreditation by the Council on Optometric Education. Clearly these are both critical reviews for the future of your alma mater.

One necessary piece of information for both of these bodies is the opinion of graduates on the quality of the program as they see it in retrospect, along with their suggestions for improvement. As chair of the self-study committee, I am asking that you please take a few minutes to complete both sides of the enclosed survey.

Clearly, the response rate to this survey itself will be a measure of alumni support of the program or lack thereof. Of course, we want you to be completely honest and thoughtful in your responses. The surveys cannot be identified in any way and will thus only be used for grouping of data. Since there is no means of tracking respondents, you will need to send this one back in the enclosed paid envelope because you will not get another.

Thank you for helping us in this important self study process.

Sincerely,



Michael T. Cron, O.D.  
Professor and Associate Dean

## Graduate Survey

1. Year of graduation from the College of Optometry at Ferris State University: \_\_\_\_\_
2. State you currently practice in: \_\_\_\_\_
3. Current mode of practice (eg sole practitioner, partnership, employed by a PC, employed by an optical company, etc.): \_\_\_\_\_
4. Current Income:
  - Salary: \_\_\_\_\_
  - Self-Employed Income: \_\_\_\_\_
  - Benefits: \_\_\_\_\_
  - Bonus: \_\_\_\_\_
5. In general, how satisfied are you with your current position:
  - \_\_\_\_\_ Very satisfied
  - \_\_\_\_\_ Somewhat satisfied
  - \_\_\_\_\_ Somewhat dissatisfied
  - \_\_\_\_\_ Very dissatisfied
6. Other degrees/residencies completed since leaving FSU: \_\_\_\_\_
7. Professional/Service activities involvement: \_\_\_\_\_

8. Indicate the adequacy of your educational experience at Ferris in preparing you for entry level eyecare practice upon graduation:

	Very Adequate	Adequate	Somewhat Adequate	Not Adequate
Basic Sciences	_____	_____	_____	_____
Binocular Vision	_____	_____	_____	_____
Contact Lenses	_____	_____	_____	_____
Pediatrics	_____	_____	_____	_____
Disease	_____	_____	_____	_____
Practice Management	_____	_____	_____	_____
Primary Care	_____	_____	_____	_____
Self-Directed life-long learning	_____	_____	_____	_____

9. Indicate any areas that Ferris should incorporate into the educational program.

10. Indicate any areas that Ferris should delete from the educational program.

# **Appendix D**

**Percentages of MCO graduates  
Employed by or Affiliated With Optical Company  
(by year of graduation)**

	<b>1979-83</b>	<b>1984-88</b>	<b>1989-93</b>	<b>1994-98</b>
<b>45%</b>				
<b>40%</b>				
<b>35%</b>				
<b>30%</b>				
<b>25%</b>				
<b>20%</b>				
<b>15%</b>				
<b>10%</b>				
<b>5%</b>				
	(9%)	(18%)	(31%)	(42%)

# Appendix E

**MICHIGAN COLLEGE OF OPTOMETRY  
AT  
FERRIS STATE UNIVERSITY**

*Academic Program Review - Student Satisfaction Survey*

Please answer the following questions to the best of your ability. Please select "N/A" if you feel that you lack experience in the particular area in question.

Circle the appropriate year that you are completing:

FIRST YEAR

SECOND YEAR

THIRD YEAR

From what you have experienced in the College of Optometry, how would you evaluate the quality of the following – please circle your response:

	Excellent		Average			Poor	
	A	B	C	D	E		
Optometric Curriculum	A	B	C	D	E	N/A	
Faculty Instruction	A	B	C	D	E	N/A	
Clinical Opportunities	A	B	C	D	E	N/A	
Administration/Staff Support	A	B	C	D	E	N/A	
Equipment & Technology	A	B	C	D	E	N/A	
Library	A	B	C	D	E	N/A	

**(PLEASE CONTINUE TO NEXT PAGE FOR ADDITIONAL COMMENTS)**



What was your main reason for choosing Optometry as a profession?

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

Has your interest in Optometry as a profession increased or decreased as a result of your educational experience in the College of Optometry? Please briefly explain?

If you "could do it all over again", would you:

Still pursue Optometry as a profession? Please briefly explain?

Attend the Michigan College of Optometry? Please briefly explain?

Other comments (please feel free to comment on back of pages if more space is needed):

# Appendix F

**Michigan College of Optometry  
FERRIS STATE UNIVERSITY**



**MEMORANDUM**

**TO:** OD Faculty

**FROM:** M. Cron *[Signature]*

**RE:** Survey for COE and APR

**DATE:** June 2, 1998

Attached is a survey for purposes of eliciting your views on some subjects relating to MCO and how it's doing. This is data that we need for the self studies we are working toward for both Academic Program Review for FSU and for the upcoming accreditation visit by the COE.

Please complete the survey and return it to my mailbox in the near future. It won't take long and everyone's opinion is desired.

Thanks.

## MCO Faculty Survey – Summer '98

Please circle the response that most closely represents your feelings about each of the following statements.

<b>Strongly</b>					<b>Strongly</b>
<b>Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Disagree</b>	<b>Disagree</b>

The current OD curriculum is appropriate for training entry level clinical optometrists.	SA	A	N	D	SD
The current OD curriculum is antiquated	SA	A	N	D	SD
There is too much didactic education in our OD curriculum.	SA	A	N	D	SD
There is too much clinical education in our OD curriculum.	SA	A	N	D	SD
We have the classroom resources necessary to educate our students effectively.	SA	A	N	D	SD
We have the clinical resources necessary to educate our students effectively.	SA	A	N	D	SD
The physical facility is conducive to health professions education.	SA	A	N	D	SD
Our admissions process results in a desirable cohort of students.	SA	A	N	D	SD
Our prerequisites need to be revised.	SA	A	N	D	SD
The MCO administration is committed to the program.	SA	A	N	D	SD
The MCO administration uses appropriate processes and procedures in running the College.	SA	A	N	D	SD
The FSU administration is committed to MCO.	SA	A	N	D	SD

[over]

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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The FSU administration uses appropriate processes and procedures in running the University.

SA      A      N      D      SD

FSU has the library and information resources required for MCO faculty and student needs.

SA      A      N      D      SD

I agree with and support the MCO Mission Statement.

SA      A      N      D      SD

The long range planning effort of the College is appropriate.

SA      A      N      D      SD

MCO has the faculty expertise necessary to educate the students.

SA      A      N      D      SD

Sufficient research and other scholarly activity is produced at MCO.

SA      A      N      D      SD

MCO is appropriately involved in the provision of continuing education to the optometric profession.

SA      A      N      D      SD

Overall, MCO is:

- working well and should continue unaltered
- working well but needs a few changes
- performing adequately but needs numerous changes
- performing poorly and needs substantive changes

Additional Comments:

# Appendix G

**MICHIGAN COLLEGE OF OPTOMETRY  
FERRIS STATE UNIVERSITY**

**TO:** Michigan College of Optometry O.D. Program Advisory Committee

**FROM:** Michael P. Keating, Professor

**SUBJECT:** ADVISORY COMMITTEE SURVEY

**DATE:** 5/29/98

In the Fall of 1998, the Michigan College of Optometry O.D. program is scheduled for a reaccreditation visit by the Council on Optometric Education and concurrently is scheduled for an Academic Program Review by Ferris State University. Dean Alan Lewis appointed me to the Steering Committee charged with preparing for these events.

One of my committee assignments is to do a survey of the Michigan College of Optometry O.D. Advisory Committee, and to present those results to the Steering Committee. A number of seats on the Advisory Committee are reserved for Michigan Optometric Association Officers. In this respect, we have updated the Advisory Committee list. If you have any questions about the Advisory Committee, please contact Dean Alan Lewis at 616-592-3706.

The purpose of the survey is to obtain information from members of the Advisory Committee regarding the curriculum, outcomes, facilities, equipment, graduates, micro and megatrends that might affect job placement (both positively and adversely), and other relevant information.

I think that most of you can answer the survey questions based on what you already know about MCO. However in addition to the survey, I have enclosed for your information a current MCO information booklet and a listing of the current affiliated off-campus clinic sites. The booklet includes information on the Mission of MCO (page 7), on the curriculum (pages 22-29), on admissions (pages 9-12), as well as some other general information.

In addition to the survey questions, please feel free to provide feedback on any other aspects of MCO.

If you have any questions about the survey, please contact me by phone (616-592-2181), fax (616-592-2394) or email ([keatingm@ferris.edu](mailto:keatingm@ferris.edu)). (I am scheduled to be out of town the week of June 8-12.)

It would be very helpful if you can return the surveys in the enclosed self-addressed envelope by 6/15/98.

I believe that it is important for MCO to obtain external feedback on its performance. Thank you for your efforts in this regard.

Enclosures: Survey, Booklet, List of Off-Campus Affiliated Clinic Sites, Return Envelop

**MICHIGAN COLLEGE OF OPTOMETRY**

**ADVISORY COMMITTEE SURVEY 1998**

**1. Rate the MCO O.D. didactic curriculum.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**2. Rate the MCO O.D. clinical curriculum.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**3. Rate MCO on selecting and preparing men and women for excellence in the practice of optometry to serve the primary vision care needs of the public**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).



**4. Rate MCO on providing an academic and professional environment for students that will stimulate their appreciation for and understanding of professional and ethical behavior and which will provide the opportunity for them to develop their potential for leadership in their profession and community.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**5. Rate the MCO facilities.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**6. Rate the MCO equipment.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**7. Rate MCO on didactic and clinical programs for the continuing education of present optometric practitioners.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**8. Rate the MCO "instate" reputation for quality.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**9. Rate the MCO regional/national reputation for quality.**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**10. Rate MCO on overall fulfillment of its Mission. (Mission Statement on page 7 of booklet).**

Very Poor	Poor	Average	Good	Very Good	Not familiar enough to answer
1	2	3	4	5	NF

Comment (optional).

**11. What are the strengths of the MCO O.D. program?**

**12. What are the weaknesses of the MCO O.D. program?**

**13. Suggestions for improvement of the MCO O.D. program**

**14. What are the micro- and megatrends that might affect optometric practice opportunities (placement) *positively*?**

**15. What are the micro- and megatrends that might affect optometric practice opportunities (placement) *adversely*?**