

# COLLEGE OF OPTOMETRY

## Doctor of Optometry Program

### ACCREDITATION

The College of Optometry was granted the pre-accreditation classification of "Preliminary Approval" on February 15, 2008 by the Accreditation Council on Optometric Education (ACOE). "Preliminary Approval" is granted to a professional optometric degree program that has clearly demonstrated it is developing in accordance with Council standards. The pre-accreditation classification of preliminary approval is the only classification available to a new professional optometric degree program, since the ACOE will not grant accreditation classifications of "Accredited" or "Accredited with Conditions" until the program is fully operational (i.e. nearing the end of its fourth year of implementation).

Western University of Health Sciences is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC). When a University that is already accredited by WASC makes what is called a "substantive" change to its program, it is required to obtain prior approval. Effective December 8, 2008, the WASC Accrediting Commission for Senior Colleges and Universities granted final approval of the substantive change proposal for the Doctor of Optometry program.

### MISSION STATEMENT

The mission of the Western University of Health Sciences College of Optometry is:

- To graduate caring, comprehensive optometrists who can enhance visual function throughout the lifespan of each unique individual, and serve the increasing public need in neuro-optometry encompassing: learning disabilities, brain injury, developmental disabilities, and the visually impaired.
- To advance scientific inquiry with particular emphasis upon studies in: neurological function; visual-spatial perception, visual-vestibular integration, visual attention, lighting, and human behavior; vision and learning; orientation and mobility in the visually impaired; and, efficacy of various treatment procedures and interventions.
- To provide health care services to the public in: primary care, pediatrics, geriatrics, low vision, vision therapy, sports vision, and neuro-optometry.

### GOALS AND OBJECTIVES

The College goals and objectives include teaching and learning, research and scholarly activity, and community and public service.

- Recruit the best students
- Maximize student retention and licensure
- Provide an innovative curriculum emphasizing key areas
- Recruit and retain the best faculty aligned with the key areas
- Create infrastructure and support for scholarly activity
- Seek collaborative opportunities and external funding for scientific inquiry
- Seek collaborative opportunities maximizing clinical education with excellence in patient care
- Integrate community and public service with curriculum and patient care
- Integrate health care services with innovative curriculum
- Integrate health care services with clinical research

### STUDENT LEARNING OUTCOMES

A graduating Doctor of Optometry from the Western University of Health Sciences College of Optometry must demonstrate ethical and professional standards appropriate to a health care professional, as well as demonstrating the biomedical knowledge required to enhance and extend the quality of life in our communities by enhancing visual function.

Western University of Health Sciences College of Optometry adopts the definition of entry level attributes for students graduating from schools and college of optometry as recommended by the Association of Schools and Colleges of Optometry (ASCO). The "30 Attributes" of the graduate are shown below.

The graduate shall be:

- Knowledgeable

*The graduate shall demonstrate knowledge of:*

1. Basic body systems, with special emphasis on the ocular and visual system and their interrelationships to the body as a whole.
2. The various processes and causes that lead to dysfunction and disease, and the effect that these processes can have on the body and its major organ systems, with special emphasis on the ocular and visual systems.
3. Mechanisms of actions of the various classes of pharmaceutical agents. Their interactions and their safe and effective use

- for the treatment of disease and conditions affecting the eye and visual system.
4. The structures and processes contributing to the development of refractive error and other optical and perceptual abnormalities of the visual system.
  5. The optics of the eye and ophthalmic lens systems (including spectacles, contact lenses and low vision devices) used to correct refractive, oculomotor and other vision disorders.
  6. Visual development and vision function with respect to deviation and enhancement such as, but not limited to, strabismus, amblyopia, oculomotor, accommodation, and visual perception.
  7. Vision therapy and other rehabilitative methods used for the management of common visual disorders.
  8. The psychosocial dynamics of the doctor/patient relationship and an understanding of the social, psychological, and economic forces affecting diverse patient populations.
  9. Practice management structures and strategies as they pertain to the various practice settings.
  10. The critical elements of verbal and written communications and, clear and appropriate documentation of patient encounters.
- Skillful

*The graduate shall demonstrate the ability to:*

1. All the skills required for the diagnosis, triage, management and/or treatment of common visual conditions and ocular diseases
  2. The ability to order and interpret frequently needed laboratory and diagnostic procedures.
  3. The critical thinking skills needed to assess the patient's visual and physical status and to interpret and synthesize the data to formulate and execute effective management plans.
  4. The ability to prescribe and/or use ophthalmic materials, contact lenses, vision therapy, low vision systems, pharmaceuticals, and certain surgical procedures, to treat and otherwise manage common vision disorders and disease.
  5. The ability to recognize and initiate the coordination of care for patients requiring advanced medical or specialty care.
  6. The ability to recognize life threatening conditions and to initiate intervention.
  7. Effective communication skills, both orally and in writing, as appropriate for maximizing successful patient care outcomes.
  8. The ability to realistically assess personal competencies and limitations.
  9. The ability to appropriately use all resources including the use of ancillary personnel, intra- and inter-professional consultation, co-management and referral in ensuring the best quality patient care.
  10. The ability to access knowledge, (including through the use of information technology), and manage information, and to apply that information in making decisions about patient care and health care delivery.
- Professional and Ethical

*The graduate shall demonstrate:*

1. A commitment to life-long learning and providing the highest standard of care.
2. The ability to incorporate ethical principles into decisions affecting patient care and the practice of optometry.
3. The ability to acquire, analyze and apply new information while making reasonable and informed decisions that are consistent with the interests and needs of the patient and broader community.
4. Problem-solving and critical thinking skills that integrate current knowledge, scientific advances, and the human/social dimensions of patient care to assure the highest quality of care for each patient.
5. The ability to recognize personal limitations regarding optimal patient care and to work with the broader health care community in providing the best care possible.
6. An understanding and application of professional ethics and standards in the practice of optometry, always keeping patient's welfare foremost.
7. Professionalism, by demonstrating honesty and integrity in all interactions with patients and their families, colleagues, and others with whom the optometrist must engage in his/her professional life.
8. A respect for the dignity of every patient and a commitment to empathetic and confidential care.
9. Professionalism in understanding the challenges to the optometric profession posed by potential conflicts of interest inherent in health care delivery.
10. A commitment to be actively involved in organized optometry and the community.

## **THE OD DEGREE**

The Doctor of Optometry degree (OD) is awarded in recognition of the highest level of professional education in optometry in the United States. To earn the OD degree, students must successfully complete four years of professional study subsequent to completion of their undergraduate, pre-professional prerequisites at an accredited college or university. Students who successfully complete this program are eligible to take state optometric licensing examinations. Most states have replaced the written examination with the National Board of Examiners in Optometry (NBEO) examinations which the students take during their academic career. Information on the NBEO licensing examination is available at <http://www.optometry.org>. After passing this examination, graduates are licensed to perform all the duties and responsibilities of a practicing optometrist.

## ADMISSION POLICIES AND PROCEDURES

The College of Optometry at Western University of Health Sciences accepts applications from all qualified candidates without regard to race, religion, sex, sexual preference, or nation of origin. While grades and Optometry Admissions Test (OAT) scores are important in selecting candidates for admission, and may suggest future academic success, the Admissions Committee recognizes that these statistics, by themselves, do not guarantee later success as a doctor of optometry. Therefore, non-academic criteria are also important in making the selection. The College of Optometry seeks a diverse and balanced student population and considers factors such as a well-rounded background, work experiences, letters of recommendation, interest in and knowledge of the profession of optometry, and professional promise. To ascertain these factors, an on-campus interview is required prior to a final decision on an application. The College may exercise its discretion to rely upon additional considerations.

### Application Requirements

An application to the College of Optometry includes the following items:

1. **Application:** Original signed Application form with all questions answered.
2. **Application Fee:** There is a non-refundable \$65.00 application fee payable to Western University. Your application will not be processed until we receive your application fee.
3. **Prerequisite Course Worksheet:** Please list all prerequisite courses you are currently taking or plan to take. Prerequisite courses may be in progress during the academic year prior to matriculation. Final transcripts and/or final grades for all course work in progress must be received prior to orientation week.
4. **Recommendation Forms (use forms provided):** We require three (3) recommendation letters. It is suggested that one letter be from an optometrist and one be from a faculty member or pre-health advisor who is familiar with your academic work.
  - Waiver Statement (optional): Sign the waiver portion on each recommendation form if you waive your right of access to any information contained in the recommendation form. Each recommendation must be submitted in a sealed envelope that is signed over the seal by the recommender. The recommender must submit the recommendation directly to the applicant so that the recommendation can be included with the application packet.
5. **Personal Statement Essay:** In your own words, please provide a thoughtful, candid discussion of your reasons for pursuing a career in optometry, a description of how you became interested in the profession and what you have done to research optometric career opportunities, a description of how you envision your career in optometry, and your professional objectives both for the short term and in the long term.
6. **Results of the Optometry Admission Test (OAT):** The OAT is required and should be taken as soon as possible with the results sent to the Western University of Health Sciences College of Optometry. If you choose to have your official score report mailed to your home address, do not open the envelope when it is received. Include this unopened score report in your application packet.
7. **Official Transcripts:** Please submit an official transcript from each college or university you have attended. All transcripts must be originals issued directly from the institution and must be stamped with the school's stamp or seal. All transcripts must be issued to the applicant in a sealed envelope with the registrar's official stamp or signature across the flap. Copies of transcripts or transcripts not sealed with an official stamp or signature across the flap will not be accepted. Some Advanced Placement (AP) credits may be accepted to satisfy prerequisites. If you plan to use AP credits and the AP test score is not included on your college transcript, please enclose a report of your AP test score that is signed and sealed by the College Board AP testing agency. Only scores of 4 or 5 will be eligible to fulfill a prerequisite.
8. **International Student Application (ISA):** International applicants, applicants who are not U.S. citizens and who are living in the U.S. and applicants who have applied for permanent residency but have not been approved at the time of application must complete an International Student Application.

### Academic Requirements

Academic requirements for admission include:

- Completion of prerequisite courses as outlined below
- Minimum 90 semester or 135 quarter units of undergraduate coursework
- A baccalaureate degree is preferred, but not required
- Optometry Admissions Test (OAT)
- Computer literacy in the operation and management of a laptop computer

### Prerequisite Courses

The following courses must be completed at an accredited institution, in the United States or Canada, with a grade of "C" or better, prior to enrollment and are the minimum requirements for all applicants:

- General Biology or Zoology with lab – 8 semester or 12 quarter units
- General (Inorganic) Chemistry with lab – 8 semester or 12 quarter units
- General Physics with lab – 8 semester or 12 quarter units
- English – 6 semester or 8 quarter units
- Organic Chemistry with lab – 3 semester or 4 quarter units

- General Microbiology or Bacteriology with lab – 3 semester or 4 quarter units
- Calculus –3 semester or 4 quarter units
- Biochemistry –3 semester or 4 quarter units
- Psychology –3 semester or 4 quarter units
- Statistics – 3 semester or 4 quarter units

### **Recommended Courses**

The following courses are not required, but are highly recommended.

- Anatomy – 3 semester or 4 quarter units
- Physiology – 3 semester or 4 quarter units

### **Notes Regarding Prerequisite Coursework**

- Introductory level courses in the sciences are not accepted
- All prerequisite courses must be completed by the Spring term of the matriculating year. No summer courses prior to matriculation will be accepted.
- Pass/No Pass grades are not accepted for prerequisite coursework
- One course cannot be used to satisfy more than one prerequisite
- Advanced Placement courses will be accepted for English or Calculus courses only. AP courses will be accepted only if the undergraduate college has accepted the credit and the student has achieved a score of 4 or 5 on the College Board Advanced Placement Test.

### **Student Selection Process**

The Western University Student Affairs/Admissions Office assists the College in preparation, distribution and handling of all admissions-related materials, as well as in application processing. Applications for admission will be accepted each year from July 25 to March 1 for classes beginning in August of the next academic year. The College of Optometry will begin scheduling interviews as academically qualified applications are received.

After the applicants' file is complete, the College of Optometry Admissions Committee will review it to determine whether the minimum academic qualifications have been met, and whether the candidate will be granted an interview. If the candidate is deemed promising, he or she will be invited to the campus at his or her expense. The candidate should plan to spend a full day on campus for orientation and the interview. Orientation will consist of information on the curriculum, financial aid, student services, a tour of the campus, and time to meet with current Western University students.

The interview team conducting the on-campus interview will complete a standardized assessment form. The admissions Committee will review the report from the interview and will also review the applicant file again to determine whether the candidate will be accepted. The options for a decision could include an offer of acceptance, placing a candidate on a wait list, or denial of admission. The applicant will be notified of the committee decision within three weeks of the interview.

The College of Optometry will be utilizing a rolling admissions process, which means that qualified candidates will be accepted on a first-applied basis throughout the open admissions period (July through February). Candidates who apply early have the best chance at acceptance.

### **International Students**

International students and any other applicants who are not U.S. citizens and who are living in the U.S. should be prepared to provide proof of legal U.S. residency at the time of interview. Proof of legal U.S. residency is required prior to any offer of acceptance. For more detailed information, please visit our web page at [www.westernu.edu/xp/edu/international/international-student-visa.xml](http://www.westernu.edu/xp/edu/international/international-student-visa.xml). It is the responsibility of the applicant/matriculant to assure that they are fully and legally qualified to attend an educational program in the United States for the duration of the program.

### **REGISTRATION**

First year students are required to register by the registration date specified in the University Calendar by the Registrar. Students in subsequent years must complete registration materials, including financial arrangements, prior to the dates specified in the Academic Calendar. Continued matriculation and graduation are subject to satisfactory completion of all academic requirements and payment of all outstanding debts to the University. The receipt of a final transcript from an undergraduate college and physical examination with documentation of required immunizations are required of incoming students prior to registration. Also, all students must show proof of current health insurance coverage at the time of registration. This coverage must remain in effect throughout the academic year. If there is no proof of current coverage, a policy provided by the University will be made available. Attendance at Orientation Week is mandatory for all incoming first-year optometry students.

### **TUITION AND FEES**

By action of the Board of Trustees, the College of Optometry annual tuition for the 2009-10 academic year (subject to change) is \$27,700. Students will incur additional costs for books, equipment, and fees, estimated at approximately \$4,500 in the first year due

to costs of initial equipment purchases, \$3,000 in the second year, and \$1,500 in the final two years. All accepted applicants must complete a matriculation agreement form and send a tuition deposit of \$500, which applies to the first-year tuition, to confirm their space in the class. If an applicant fails to register, the tuition deposit is forfeited.

In addition to tuition, students are assessed a \$40 Student Body Fee in years one and two of the curriculum, and a \$20 Student Body Fee in years three and four of the curriculum. This fee supports student government expenditures, social activities, and public relations.

### **Other Fees and Expenses, Estimated**

Graduation Fee (assessed on candidates for graduation only)	\$ 125
Late Registration Fee (per day)	\$ 30
Recommended Text Books (per year, estimate)	\$1,000
Required equipment (per year, estimate)	\$ 500
Required tablet personal computer (range)	\$2,000 to \$2,500
Lost Identification Badge Fee	\$ 10
Lost Locker Key Fee	\$ 40
Western University Parking Permit Fee (annual, optional)	\$ 400
Copy of Official Transcript (each)	\$ 6
Rush Transcript (each), First Class Mail	\$ 21
Rush Transcript (each), Federal Express	\$ 25
Copy of Student File Material (per page)	\$ 0.25

### **Financial Assistance**

All Optometry students are eligible to apply for need-based financial aid. For more information, please call the Financial Aid Office at 800-346-1610 or visit the Financial Aid Web site at <http://www.westernu.edu/xp/edu/financial/financial-about.xml>.

### **Tablet Personal Computers (PC)**

Students are required to have a tablet personal computer and will begin using it the first week of class. Tablet PCs must meet pre-determined technical specifications that are updated annually. Specifications can be accessed by visiting the Western University website at <http://www.westernu.edu/bin/computing/computer-requirements-laptop.pdf>. The tablet PCs will be used for e-mail communication with classmates and faculty, for accessing computer and server-based course information and instructional software, for searching online bibliographic databases and creating electronic bibliographies, and for participating in exercises in clinical education and pre-clinical laboratory assignments. Tablet PCs are required to run Electronic Health Records software and must meet exact specifications to support these needs. In addition, it is recommended that each student have access to a printer. Computers will be needed by students on campus as well as at their pre-clinical laboratories, clinical assignments, and community-based screening programs; therefore, tablet computers are required instead of desktop models.

### **National Board Fees**

All states require passage of the National Board of Examiners in Optometry (NBEO) examinations for licensure. Students will be eligible to take NBEO exams in their third and fourth years of study. Fees are subject to change by NBEO and are updated regularly. These fees can be found online at <http://www.optometry.org/fees.cfm>.

### **Clinical Rotations Expenses**

During the third and fourth years of the curriculum, students may be required to rotate through off-campus clinical experiences away from the Pomona area, which is a self-imposed expense. In addition, students are required to return to campus several times during the clinical years for various educational experiences, conferences, etc. Any travel, food, housing or other expenses incurred by participating in these activities are the responsibility of the student.

## **ACADEMIC POLICIES AND PROCEDURES**

### **Academic Support**

The faculty and administration of the College of Optometry are committed to providing support for academic success in the program.

Students are encouraged to take an active role in monitoring their own academic progress to ensure adequate performance in all assignments. Student academic performance is monitored on an ongoing basis by faculty members, the Assistant Dean of Student Affairs, and the Associate Dean of Academic Affairs.

The University offers academic support services through the office of Learning Enhancement and Academic Development (LEAD) and students are encouraged to avail themselves of these services as needed.

The College of Optometry's Assistant Dean of Student Affairs serves as the primary contact for students seeking support.

## **Student Performance Committee**

The Student Performance Committee is responsible for maintaining the academic and conduct standards within the College of Optometry.

For purposes of clarification, “performance” is defined as those activities of behavioral-conduct or academic nature that negatively affects or impairs the continued ability of a student to maintain good academic standing within the College of Optometry.

The Student Performance Committee also has the responsibility of recommending to the Faculty as a whole the awarding of the degree of Doctor of Optometry to all students who satisfactorily complete all requirements for graduation as stated in the University Catalog.

All recommendations of the Student Performance Committee shall be in writing to the Dean, who will make the information available to the affected student. The Committee Chair will provide recommendations on remediation, probation, suspension and dismissal to the Associate Dean of Academic Affairs. Guidelines for committee actions are included in the following section.

## **Attendance and Absences**

Attendance is required at all scheduled instructional periods, including orientations, group meetings with tutors, scheduled educational laboratories and experiences, and all clinical assignments. Absence from instructional periods for any reason does not relieve the student from responsibility for the material covered during these periods.

Students are required to be present for all scheduled examinations and cannot begin an examination more than 15 minutes after the scheduled starting time. There are no planned unexcused absences in advance for scheduled course examinations. In the case of emergency circumstances (e.g., illness or accident) students may request an excused absence allowing them to take a make-up examination. Requests (with appropriate documentation) must be made to the Associate Dean of Academic Affairs, who in turn will provide the decision for excused absences to the course instructor.

Absence from an examination due to unforeseen circumstances, including illness, should be reported to the Associate Dean of Academic Affairs by telephone or email as soon as possible prior to or after the exam has been administered. A written explanation of the absence (including documentation on physician letterhead, in the case of illness) must be provided to the Associate Dean of Academic Affairs the next day the student is on campus.

If a student misses an examination, the Associate Dean of Academic Affairs will determine whether the absence is excused or unexcused. If the absence is excused, the student will be permitted to take a make-up examination, the nature and time of which will be determined at the discretion of the course instructor, and the student will receive full credit for the make-up examination.

If the absence is unexcused this is grounds for summary failure (a score of zero) for that examination. The course instructor may grant a score of zero or may offer the student the option of completing an alternate assignment or alternate test for partial credit at his or her discretion.

## **Leave of Absence**

A leave of absence may be initiated at the request of the student for personal reasons. Students requesting a leave of absence should communicate directly with the Assistant Dean of Student Affairs. The duration, terms, and standards for readmission will be communicated by the Assistant Dean of Student Affairs in writing to the student. The Leave of Absence policy will be administered in alignment with the University’s General Academic Policies and Procedures.

## **Examinations**

Examination schedules will be provided at the beginning of every course and included in each course syllabus. In addition, unannounced examinations may occur during any portion of the curriculum at the discretion of the course instructor.

## **Standards of Academic and Professional Conduct**

Honesty and integrity are among the most valued traits of an optometrist, and each student is expected to assume personal responsibility for those traits. Academic dishonesty includes cheating, plagiarism, using unauthorized resources during examination(s), and signing another person’s name to an attendance or examination document.

Matters of academic dishonesty and professional misconduct will be handled consistently with the University’s guidelines for Hearings involving alleged violations of the standards of professional conduct as described in the University’s General Academic Policies and Procedures.

## **Grading Policies**

Official grades are turned in to the Registrar of Western University by the Office of the Dean of the College of Optometry, at which time the online student records system, BanWeb, is updated. Grades may be viewed and unofficial transcripts are available on the BanWeb student records system throughout the academic year. For more information on how to access the BanWeb student records system, visit the Registrar’s website at <http://www.westernu.edu/registrar>.

The College of Optometry uses letter grades A through U and Pass/Fail with clinical grading levels of Honors, Pass, Remedial, or Fail. Honors/Pass/Remedial/Fail courses will not be assigned letter grades. The student must satisfy the requirements of these courses, as determined by the faculty teaching the courses, to receive credit. Course grading scales will be published in each course syllabus. Letter grades assigned may vary from course to course, depending on the type of material and required competencies. Courses that are taken jointly within the COMP curriculum will have their own College of Optometry course number and course

requirements and grading standards as determined by the College of Optometry faculty. The Patient Care Services course sequence will be graded on an Honors, Pass, Remedial, or Fail basis.

Letter grades are reported according to the following values:

A	(4.00)	Excellent
B	(3.00)	Good
C	(2.00)	Satisfactory
D	(1.00)	Unsatisfactory
U	(0.00)	Fail
HO	(0.00)	Honors (Patient Care Services course sequence only)
P	(0.00)	Pass (Patient Care Services course sequence only)
R	(0.00)	Remedial (Patient Care Services course sequence only)
AU	(0.00)	Audit
I	(0.00)	Incomplete
W	(0.00)	Withdrawal
M	(0.00)	Missing

A semester and cumulative grade point average are calculated and posted on each student's transcript. Courses graded on a Pass/Fail basis do not contribute to the calculation of the grade point average. Class ranking is also available upon request from the Registrar's Office.

### Credit Calculations

Credit hours for the curriculum will be allocated in accordance with standard University policies. 12 hours of assigned lecture will be equivalent to 1.00 credit hours; 24 hours of laboratory instruction and/or practice sessions will be equivalent to 1.00 credit hours. Credit hours for clinical patient care (Patient Care Services course sequence) will be assigned as 16 hours per 1.00 credit hours. Credit hours are rounded to the nearest 0.50.

### Grade Changes

For all courses, no grade will be changed unless the course instructor-of-record certifies in writing to the Associate Dean of Academic Affairs and the Registrar that an error in computing or recording the grade occurred. For on-campus courses, students have a maximum of three weeks from the time examination results are returned to them to bring any errors or irregularities in grading to the attention of the instructor. All recorded grades remain on the official transcript unless a clerical error has occurred.

Within the above-designated time, grade changes for clinical assignments will be considered only under the following circumstances:

1. When the Associate Dean of Academic Affairs receives a signed written statement from the clinical site coordinator specifying that a clerical error has been made regarding a grade, and that the purpose of the change is to correct the clerical error.
2. When the clinical site coordinator to whom the student was assigned submits a signed written request to have the grade changed. The request must include justification for making the change.

### Satisfactory Progress

Students must maintain a semester and cumulative grade point average of C (2.00) on a yearly basis during all four years of the curriculum to be considered making satisfactory academic and professional progress. All grades of Incomplete (I) must be successfully completed, and "U" or "D" grades in any course or clinical assignment must be satisfactorily remediated prior to promotion or graduation. If a student leaves a clinical assignment before it is finished without the permission of the Associate Dean of Academic Affairs, or is asked to leave an assignment by the Clinical Site Coordinator, a grade of "F" will be assigned.

### Incomplete Grade (I)

A grade of Incomplete (I) indicates that a student has not been able to finish all required work for issuance of a letter grade. An "I" is not counted in the grade point calculations until a letter grade is issued to replace the "I".

Replacement of an "I" will be under the direction of the instructor-of-record with the approval of the Associate Dean of Academic Affairs. Grades of Incomplete must be replaced with a letter grade at a time designated by the instructor-of-record but no later than three weeks following the end of the semester. Incomplete grades that are not replaced with a letter grade within three weeks will automatically be changed to a grade of "U" or "F". Students earning an Incomplete grade in a clinical assignment may have the completion deferred for a period of time greater than three weeks with approval from the instructor-of-record and the Associate Dean of Academic Affairs.

## **Promotion**

Promotion is defined as academic and professional progression from one academic year to the next. The Student Performance Committee will recommend students to the faculty for promotion. A student may not be recommended for progression from one academic year to the next with an outstanding grade of “I”, “U”, or “D” in a required course, a semester GPA less than 2.00 for two consecutive semesters, or a cumulative GPA less than 2.00. When considering a student for promotion, ethical, professional, and personal conduct will be taken into consideration (see University’s General Academic Policies and Procedures section of the catalog).

## **Probation**

Student performance is reviewed on an ongoing basis. Determination of eligibility for probation will be assessed at the conclusion of each course as well as at the end of each semester. Since courses may conclude prior to the end of the semester, a student may be eligible for probation prior to the end of the academic term. Students may be placed on probation for inadequate academic progress or for conduct violations. Recommendations for probation are made by the Student Performance Committee to the Associate Dean of Academic Affairs.

Students will be placed on academic probation if any of the following occur:

1. Cumulative grade point average is below 2.00
2. Grade point average is below 2.00 in two consecutive semesters
3. When a student earns a grade of U (Fail), F (Fail) or R (Remedial)
4. When a student earns three or more grades of “D” in one semester
5. When a student earns three or more grades of “D” within one curriculum track or course series
6. When a student earns two or more grades of I (Incomplete) in one semester

Students will be placed on disciplinary probation if any of the following occur:

1. A pattern of unexcused absences from scheduled learning activities is demonstrated
2. When a student demonstrates deficient ethical, professional or personal conduct

Students who are on probation must meet with the Associate Dean of Academic Affairs to monitor progress at least once a month. It is the student’s responsibility to contact the Associate Dean of Academic Affairs to arrange these meetings or contacts. Students on academic probation must bring their cumulative GPA to greater than a C (2.00) average and/or satisfactorily remediate failed courses within two semesters of the imposition of academic probation, after which they will be removed from probation. If they do not meet these goals, they will be eligible for dismissal from the optometry program. Students on academic probation are not permitted to hold leadership positions in extra-curricular activities associated with the University and/or with professional associations.

## **Remediation**

The educational objectives that underlie remedial teaching and evaluation are the same as the educational objectives that underlie regular courses in the curriculum. The academic progress of students who fail a course, including a clinical assignment, or who fail to attain a GPA of 2.00 or greater for any semester will be reviewed by the Student Performance Committee. Where deemed appropriate, this Committee, after consultation with the course instructor and the Associate Dean of Academic Affairs, may recommend an option to offer the student an opportunity for remediation.

The optional strategy for remediation will be determined by the Associate Dean of Academic Affairs.

1. The taking, and passing, of a comprehensive examination
2. Completion of special projects or studies in the deficient area(s)
3. Repeating of the course or clinical assignment
4. Repeating of the academic year

The grade(s) achieved in the remediation will be the grade(s) recorded on the student’s transcript, except that the highest grade a student may earn by options 1 or 2 (above) is a “C”. The grade achieved by repeating a course or year will be recorded on the transcript with a notation identifying the original grade. Grades earned during remediation of a course or clinical assignment will be reviewed critically by the Student Performance Committee.

A student who is required to repeat a course must be notified in writing by the Associate Dean of Academic Affairs at least 15 working days prior to the start date, or within 15 working days after the close of the academic year in which the student is presently enrolled, whichever comes first. Notification must either be sent by Certified Mail or hand-delivered to the student and must be acknowledged with the signatures of the Associate Dean of Academic Affairs and the student.

## **Dismissal from the Program**

The Faculty of the College of Optometry may require dismissal of a student from the optometry curriculum for failure to meet standards of scholarship, attendance, or conduct. The Student Performance Committee may recommend dismissal of a student for failing to meet standards of scholarship for:

1. Cumulative grade point average at the end of the first professional year of less than 1.50
2. Cumulative grade point average below 2.00 after having been on probation in any previous semester
3. When a student earns more than one grade of “U” or “F” in a semester
4. When a student is eligible for probation for the third time
5. When a student fails to successfully remediate any required course or clinical assignment

The final decision for dismissal of a student is made by the Dean of the College of Optometry based on appropriate sources that may include individual faculty, the Associate Dean of Academic Affairs, the Assistant Dean of Student Affairs, and the Student Performance Committee. Students have the right to appeal a dismissal as specified in the University's General Academic Policies and Procedures.

In addition, the Student Performance Committee may recommend dismissal in matters regarding student misconduct (see General Academic Policies and Procedures section of the Catalog for more information).

### **Readmission**

Students dismissed from the program for inadequate academic progress may apply to the Student Performance Committee for reinstatement. Students dismissed for the second time, or second-, third- or fourth-year students who have attained semester GPA's of less than 2.00 in more than 40 percent of the semesters enrolled, or students who have incomplete (I) grades in required courses will not be considered for readmission.

The Student Performance Committee, considering readmission, will stipulate the courses to be repeated and the level of performance that must be achieved. Final decision for readmission is made by the Associate Dean of Academic Affairs. Failure to achieve these requirements will result in permanent dismissal from the program. If permitted to return, students will be placed on probation, and may be dismissed again any time their performance is unsatisfactory.

### **Graduation**

A student will be recommended for the degree Doctor of Optometry at Western University provided he/she:

1. has completed all required courses in the four year curriculum with a cumulative GPA greater than or equal to 2.00,
2. has no outstanding grade of "I", "U", or "F" in a required course,
3. has demonstrated appropriate ethical, professional, and personal conduct, as defined in the University Catalog, "General Academic Policies and Procedures" section, and
4. has complied with all the legal and financial requirements of the University as stated in the University Catalog and has paid all required fees.

Unless special permission has been granted by the President of the University, all students must participate in person in the commencement program at which the degree is conferred. If the President grants special permission to be excused from graduation, the graduate may be required to present himself or herself at a later date to the Dean of the College of Optometry to receive the diploma and take the Optometric Oath.

### **CURRICULUM**

The curriculum at the College of Optometry is a four-year, full-time academic and clinical program leading to granting the degree of Doctor of Optometry (OD). The over-arching themes of the curriculum include:

1. Early entry into patient care
2. Integration of basic and clinical sciences
3. Interprofessional education in collaboration with other health disciplines
4. Preparation for entry-level optometry care along with a special emphasis on optometric rehabilitation

### **Instructional Methods**

A number of different instructional methods will be used to support optimal teaching and learning. Years one through three of the curriculum will include didactic lectures, biomedical laboratories, pre-clinical laboratories, small group learning, clinical education, and service learning. A variety of pedagogical techniques will be used including case-based learning, development of critical thinking techniques, and fostering of clinical thought processes. The fourth and final year of the curriculum will consist of full-time patient care experiences.

Because WesternU graduates are expected to practice in all states and regions, they must be prepared for the broadest scope of practice of any state in the United States. State optometric practice acts have been considered in the curriculum design. Mastery of advanced diagnostic techniques and cutting-edge clinical skills (as demonstrated through lab proficiencies) will enable graduates to practice full-scope optometric care.

A key to the proposed curriculum is to support and encourage collaboration between the various health professions. Interprofessional integration will be incorporated into the curriculum in several areas. It is anticipated that in the first year of the curriculum, optometry students will be enrolled in several didactic courses with the medical, dental, and podiatric students, including:

- Introduction to the Study of Medicine
- Physician & Society
- Head & Neck Anatomy
- The Molecular and Cellular Basis of Medicine
- Introduction to Disease, Immunity & Therapeutics
- Neuroscience
- Behavioral Medicine & Psychiatry

Students in the first and second years of the curriculum will also engage in integrated case-based learning within small groups, which will include representatives from each of the health disciplines on the WesternU campus. In the first and third years of the

program, students from the College of Optometry will be enrolled, along with students from all health professions, in courses that include a service learning component. The service learning curriculum will incorporate the design, implementation, and evaluation of community-based projects such as outreach to elementary schools and senior citizen groups. The service learning courses will include practical applications of health education, public health, epidemiology and biostatistics.

Interprofessional integration will also carry over to the clinical environment with the development of an interprofessional clinical service in the Patient Care Center, the on-campus facility. Faculty and students from different disciplines will learn from each other as they provide a team approach to the delivery of health care services. Videotaped patient care encounters that take place in the interprofessional clinic will form a unique digital case library for use in planned Interprofessional Grand Rounds.

The College of Optometry has incorporated into its mission a special emphasis on a unique learning opportunity: optometric rehabilitation. To set the foundation for a deeper understanding of neurological processes, students from the optometry program will enroll in the course, Neuroscience, which is presented in the medical school curriculum. This course integrates basic science disciplines of embryology, histology, neuroanatomy, biochemistry, physiology and pharmacology within a clinical context. Toward the goal of creating this special emphasis in optometric rehabilitation, the curriculum will also include didactic and laboratory instruction dedicated to the specialized discipline of optometric rehabilitation in the third year of the program. Ocular sequelae and visual consequences of neurological disease, along with perceptual problems and techniques for rehabilitation will be discussed. In addition to preparing students for full scope optometric practice, the clinical education curriculum will also include components emphasizing optometric rehabilitation. The on-campus clinical programs will also be developed to include hands-on training in optometric rehabilitative patient care and community-based opportunities for optometric rehabilitation, such as in rehabilitation hospitals.

### **First Year, Fall Semester**

OPTM 5001	Introduction to the Study of Medicine (0.5 credit hour)
OPTM 5002	Physician and Society (1 credit hour)
OPTM 5003	Gross Anatomy (3 credit hours)
OPTM 5004	Head and Neck Anatomy (2 credit hours)
OPTM 5005	The Molecular and Cellular Basis of Medicine (9.5 credit hours)
OPTM 5021	Principles and Practice of Optometry I: Vision Screenings (2.5 credit hours)
OPTM 5022	Principles and Practice of Optometry II: Clerkship and Rehabilitation (5 credit hours)
OPTM 5031	Ocular Anatomy and Physiology (4.5 credit hours)
OPTM 5051	Optical Science I: Geometric Optics (3.5 credit hours)
OPTM 5091	Service Learning I (1 credit hour)
OPTM 7001	Patient Care Services I (3.5 credit hours)

### **First Year, Spring Semester**

IPE 5100	Patient Centered Cases – An Interprofessional Approach I (1 credit hour)
OPTM 5101	Introduction to Disease, Immunity and Therapeutics (8 credit hours)
OPTM 5102	Neuroscience (7.5 credit hours)
OPTM 5103	Behavioral Medicine and Psychiatry (0.5 credit hour)
OPTM 5121	Principles and Practice of Optometry III: Refraction (5 credit hours)
OPTM 5131	Ocular Pharmacology I: Diagnostics (0.5 credit hour)
OPTM 5141	Vision Science I: Monocular Sensory (3.5 credit hours)
OPTM 5151	Optical Science II: Mechanical and Ophthalmic Optics (3.5 credit hours)
OPTM 5161	Practice Management I (1 credit hour – course starts in Fall Semester)
OPTM 5191	Service Learning II (1.5 credit hours)
OPTM 7002	Patient Care Services II (4 credit hours)

### **Second Year, Fall Semester**

IPE 6000	Patient Centered Cases – An Interprofessional Approach II (1 credit hour)
OPTM 6021	Principles and Practice of Optometry IV: Tissue Evaluation of the Anterior Segment (7 credit hours)
OPTM 6031	Ocular Pharmacology II: Principles (1 credit hour)
OPTM 6041	Vision Science II: Neural Basis of Vision (4 credit hours)
OPTM 6042	Vision Science III: Development of Vision (4 credit hours)
OPTM 6043	Vision Science IV: Environmental Vision (1 credit hour)
OPTM 6051	Optical Science III: Physiological Optics (4 credit hours)
OPTM 6052	Optical Science IV: Physical Optics (4 credit hours)
OPTM 6071	Ocular Disease I: Diagnosis and Treatment of the Anterior Segment (3.5 credit hours)
OPTM 7003	Patient Care Services III (4 credit hours)

### **Second Year, Spring Semester**

IPE 6100	Patient Centered Cases – An Interprofessional Approach III (1 credit hour)
OPTM 6111	Contact Lenses I: Theory and Practice (5.5 credit hours)
OPTM 6122	Principles and Practice of Optometry V: Tissue Evaluation of the Posterior Segment (5.5 credit hours – coursework begins in Fall Semester with final grade given in Spring)

OPTM 6141	Vision Science V: Behavioral Optometry (3 credit hours)
OPTM 6171	Ocular Disease II: Diagnosis and Treatment of Glaucoma (3 credit hours)
OPTM 6182	Behavioral Optometry: Diagnosis and Treatment (7.5 credit hours)
OPTM 7004	Patient Care Services IV (4.5 credit hours)

### **Second Year, Summer Semester**

OPTM 6241	Evidence Based Eye Care (1.5 credit hours)
OPTM 6261	Practice Management II (3 credit hours)
OPTM 7005	Patient Care Services V (14 credit hours)

### **Third Year, Fall Semester**

OPTM 8011	Contact Lenses II: Theory and Practice (6 credit hours)
OPTM 8012	Special Considerations in Pediatrics (2.5 credit hours)
OPTM 8013	Special Considerations in Geriatrics (2.5 credit hours)
OPTM 8021	Special Procedures in Optometry (4 credit hours)
OPTM 8071	Neuro-Ocular Disease: Diagnosis and Treatment (2.5 credit hours)
OPTM 8072	Ocular Disease III: Diagnosis and Treatment of the Posterior Segment (3 credit hours)
OPTM 8081	Neuro-Optometric Rehabilitation I: Strabismus and Amblyopia (3.5 credit hours)
OPTM 8082	Neuro-Optometric Rehabilitation II: Patient with Neurological Damage (4.5 credit hours)
OPTM 7006	Patient Care Services VI (14 credit hours)

### **Third Year, Spring Semester**

OPTM 8101	The Eye in Systemic Disease (2.5 credit hours)
OPTM 8102	Systemic Pharmacology: Top 40 Medications (1 credit hours)
OPTM 8111	Low Vision Rehabilitation (5 credit hours)
OPTM 8121	Patient Presentations in Primary Eye Care (4 credit hours)
OPTM 8161	NBEO Review (6 credit hours)
OPTM 8162	Elective I (1 credit hour)
OPTM 8163	Elective II (1 credit hour)
OPTM 8191	Service Learning III (0.5 credit hours)
OPTM 7007	Patient Care Services VII (13 credit hours)

### **Fourth Year**

OPTM 7008	Patient Care Services VIII (30credit hours)
OPTM 7009	Patient Care Services IX (30 credit hours)
OPTM 7010	Patient Care Services X (30credit hours)
OPTM 7011	Patient Care Services XI (30 credit hours)
OPTM 9061	Practice Management III: Web-based (1.5 credit hours)

The fourth year is comprised of full-time (40 hours per week) clinical instruction and learning experiences to include:

- Primary Care Clinical,
- Advanced Optometric Care,
- Specialty Optometric Care, and
- Community Optometric Care

### **Implementation**

Clinical faculty will implement the curriculum in a manner that balances the learning needs of the students and the educational resources available at the site. Clinical faculty and sites are encouraged to use a variety of teaching techniques including observation, monitored participation, video and audio recordings, computers, readings, individual discussions, and presentations by students, faculty and others to enhance learning.

### **Procedural Skills**

Part of the College's expectation is that students will gain a knowledge and understanding of various procedural skills. In addition to proficiency in the psychomotor aspects of procedural skills, the College expects that the student will understand the indications, contraindications, risks, benefits, and alternatives for various procedures. Student performance of any procedure on a patient must be under the direct supervision of the assigned clinical faculty or their professional designee.

## **COURSE DESCRIPTIONS**

Courses listed in this Catalog are subject to change through normal academic procedures. New courses and changes in existing course work are initiated by the faculty, reviewed and approved by the Curriculum Committee, the faculty, the Associate Dean of Academic Affairs, and the Dean of the College of Optometry.

### **IPE 5100 Case-Based Learning – An Interprofessional Approach I (1 credit hour, graded)**

This course is a required university seminar for all first year health professional students. This course prepares students to practice health care services through a team approach. Working in small interprofessional teams, students will explore cases representing conditions across the life span. The cases will integrate elements common to all professionals such as ethical, behavioral, social and psychological issues. The course is a graduate requirement for all health professional students.

### **IPE 6000 Case-Based Learning – An Interprofessional Approach II (1 credit hour, graded)**

Continuation of IPE 5100.

### **IPE 6100 Case-Based Learning – An Interprofessional Approach III (1 credit hour, graded)**

Continuation of IPE 6100.

### **OPTM 5001 Introduction to the Study of Medicine (0.50 credit hour, graded)**

This course provides a systematic strategy for the entering student to study medicine. Learning styles and critical thinking skills are evaluated and training on accessing electronic medical resources is given. Students from the optometry program will participate in sessions covering the following topics: professionalism, evaluating the medical literature, self awareness, learning styles, California Critical Thinking Test, and overview of medical literature resources.

### **OPTM 5002 Physician and Society (1.00 credit hour, graded)**

This course provides an exploration of the role of health care providers in the larger society. The course explores philosophical and ethical issues of health care through its literature and history. The impact of health care on society and of society on health care is explored.

### **OPTM 5003 Gross Anatomy (3.00 credit hours, graded)**

This course presents an understanding of the structure and arrangement of the gross anatomical features of the human body. Through lectures and laboratory examination of cadavers, students are introduced to the language of anatomy and to clinically important relationships. Models, radiographs and special demonstrations are employed to emphasize areas useful to the doctor of optometry.

### **OPTM 5004 Head & Neck Anatomy (2.00 credit hours, graded)**

Through lecture and laboratory, students are introduced to the anatomy of the head and neck. Particular attention is paid to the cranial nerves, both their normal function and the numerous clinical syndromes that affect them. The anatomy lectures will also be supplemented with various clinical presentations.

### **OPTM 5005 The Molecular and Cellular Basis of Medicine (9.50 credit hours, graded)**

This course presents an integration of molecular biology, biochemistry, cellular physiology and metabolism, introductory genetics and developmental histology within the context of their clinical applications of basic biomedical sciences.

### **OPTM 5021 Principles and Practice of Optometry I: Vision Screenings (2.50 credit hours, graded)**

This course introduces the components of community-based vision screenings. The material presented prepares students to participate in the delivery of patient care. In this course, students acquire knowledge, technical skills, and professional attitudes through lecture and laboratory activities.

### **OPTM 5022 Principles and Practice of Optometry II: Clerkship and Rehabilitation (5.00 credit hours, graded)**

This course introduces additional components of the primary care eye examination including visual acuity measurement, entrance testing, lensometry, and retinoscopy along with patient history taking and a problem oriented approach to clinical reasoning. Entry into ocular health assessment will include an external health evaluation, pupil testing, and an introduction to the direct ophthalmoscope. Strategy of the examination, sequencing, patient communication, and medical record keeping will be included.

### **OPTM 5031 Ocular Anatomy & Physiology (4.50 credit hours, graded)**

This course presents in depth coverage of the anatomy and physiology of the eye, adnexa, and visual systems. Embryological development of these structures will also be covered. Topics include the anatomy and physiology of the eyelids, lacrimal apparatus, tear production, cornea and lens, ocular fluid dynamics, retina and optic nerve. Hands on laboratories will include eye dissection and viewing of histological specimens.

**OPTM 5051 Optical Science I: Geometric Optics (3.50 credit hours, graded)**

This course presents information on all aspects of geometric optics. The course emphasizes the basic study of refraction at plane and curved surfaces, thin lenses, thick lenses, lens systems, cylindrical lenses, prisms, and single refracting surfaces.

**OPTM 5091 Service Learning I (1.00 credit hours, graded)**

Through interaction and service in the community, this course develops the role and responsibility of health care providers in society. Topics, including health education, public health, epidemiology and biostatistics, are learned through practical application.

**OPTM 5101 Introduction to Disease, Immunity & Therapeutics (8.00 credit hours, graded)**

This is an integrated course introducing microbiology, immunology, pathology, and pharmacology to prepare students for more in-depth study during clinical science courses. Genetics, as related to these disciplines, is also included. Clinical applications of the basic sciences are emphasized.

**OPTM 5102 Neuroscience (7.50 credit hours, graded)**

This course presents basic understandings of the brain, spinal cord and peripheral nervous system. Basic science topics include embryology, histology, neuroanatomy, biochemistry, physiology and pharmacology. Clinical topics include infections of the nervous system, pathology, neurology, visual systems, otorhinolaryngology, and overviews of sleep disorders, cerebrovascular disorders, aging and dementia.

**OPTM 5103 Behavioral Medicine and Psychiatry (0.50 credit hour, graded)**

This course presents biological, psychological and social aspects of behavior in relation to the delivery of health care. The course addresses how a patient's behaviors contribute to their health and/or disease. Students from the optometry program will participate in sessions covering the following topics: cultural components of behavior, learning disorders, abuse, neglect, violence and trauma, disabilities.

**OPTM 5121 Principles and Practice of Optometry III: Refraction (5.00 credit hours, graded)**

This course builds upon the foundation established in Principles and Practice of Optometry I and II and introduces the fundamental aspects of a refractive sequence. The new techniques will be integrated within the context of the comprehensive eye examination sequence and will introduce students to the clinical thought processes required to diagnose and manage common refractive conditions. Ocular health assessment will continue with basic undilated biomicroscopy. Strategy of the examination, sequencing, patient communication, and medical record keeping will be included.

**OPTM 5131 Ocular Pharmacology I: Diagnostics (0.50 credit hours, graded)**

This course presents proper techniques for the instillation of eye drops and covers physiological mechanisms and practical considerations in the application of pharmaceutical agents topically applied to the eye for diagnostic purposes.

**OPTM 5141 Vision Science I: Monocular Sensory (3.50 credit hours, graded)**

This course sets the foundation for the theory and methods of vision testing and visual perception through one eye. It covers concepts including light stimuli, photometry, signal detection, physiological processing of information, and psychophysics. Visual perception and the constancy of visual processes such as size and distance perception, form perception, the perception of motion and achromatic color perception are discussed. Electrophysiology of the visual system will be introduced.

**OPTM 5151 Optical Science II: Mechanical and Ophthalmic Optics (3.50 credit hours, graded)**

This course presents the theory and application of ophthalmic optics. Lens power measurement, ophthalmic spectacle lens prescription writing, spectacle lens characteristics, and the optics of multi-focal lenses are covered in depth. The optics of contact lenses and magnification systems are also introduced. Spectacle frame selection, dispensing, and eyewear adjustment are included.

**OPTM 5161 Practice Management I (1.00 credit hours, graded – continued from Fall Semester)**

This course starts in the fall semester with a brief series that introduces professionalism and professional ethics specific to optometric practice will also be emphasized. It continues in the Spring semester, focusing on various modes of optometric practice, including an overview of opportunities for employed positions, group practices, and self-employment. Selection of a practice location, professional referrals, and relationships with other health care providers will be discussed.

**OPTM 5191 Service Learning II (1.50 credit hours, graded)**

This course is a continuation of Service Learning I. Practical application of health education, public health, epidemiology and biostatistics is further explored.

**OPTM 6021 Principles and Practice of Optometry IV: Tissue Evaluation of the Anterior Segment (7.00 credit hours, graded)**

As the fourth course in the series, new material will be integrated within the context of the primary care optometric examination. Emphasis will be placed on health assessment of the anterior ocular segment including a variety of techniques of examination. Strategy of the examination, sequencing, patient communication, and medical record keeping will be included.

**OPTM 6031 Ocular Pharmacology II: Principles (1.00 credit hours, graded)**

This course focuses on the pharmacodynamics and pharmacokinetics of agents used for the diagnosis and treatment of ocular conditions. Topics include general principles of drug penetration into the eye and drug elimination from the eye and systemic absorption of medications administered topically to the eye. Principles of drug administration including the use of ophthalmic suspensions and ointments, oral medications, and injectables will be discussed.

**OPTM 6041 Vision Science II: Neural Basis of Vision (4.00 credit hours, graded)**

This course presents the underlying mechanisms of vision from a neurophysiological perspective, including the construction of representations of the world via neural information processing from retina to tectum and primary visual cortex and to visual areas beyond striate cortex.

**OPTM 6042 Vision Science III: Development of Vision (2.00 credit hours, graded)**

This course covers the development of and visual function from conception through adolescence. Implications of abnormal development and resulting clinical pathologies are discussed. The physiological and psychological bases of strabismus and amblyopia are presented and reinforced through clinical examples.

**OPTM 6043 Vision Science IV: Environmental Vision (1.00 credit hours, graded)**

This course furthers the understanding of the interaction between vision and the environment. Topics include visual sensitivity, light and dark adaptation, spatial phenomena, modulation transfer function, flicker detection, contrast sensitivity, and visual acuity. Visual ergonomics, illumination, and lighting standards will be covered.

**OPTM 6051 Optical Science III: Physiological Optics (4.00 credit hours, graded)**

Physiological optics of the eye and an introduction to the correction of ametropias will be presented. The various axes, angles, and landmarks of the eye will be presented in optical terms with the eye as an optical system. Characteristics of the ocular media and the interaction of light with the eye will be discussed. Optical aspects of accommodation, presbyopia, aphakia, and pseudophakia will be included. The role of the pupil as it affects depth of field, aberrations and accommodation will be described.

**OPTM 6052 Optical Science IV: Physical Optics (4.00 credit hours, graded)**

This course presents the physics of light, including the characteristics of electromagnetic radiation, interference, diffraction, polarization, lasers, and anti-reflection lens coatings.

**OPTM 6071 Ocular Disease I: Diagnosis and Treatment of the Anterior Segment (3.50 credit hours, graded)**

This course builds upon the framework presented in the Principles and Practice of Optometry curricular track to present advanced concepts in ocular disease diagnosis and management. The anatomical, physiological, histological, and pathological processes of ocular disease of structures at the front of the eye will be emphasized. Laboratory experience in imaging of the lens and anterior segment will be presented.

**OPTM 6111 Contact Lenses I: Theory and Practice (5.50 credit hours, graded)**

This course introduces the use of contact lenses in primary care optometry. The clinically based approach will include discussion of patient selection for lens wear, selection of appropriate materials, lens design, wearing schedules, and trouble-shooting. Laboratory experience in lens design, lens modifications, contact lens fittings and assessments will prepare students for patient care experiences.

**OPTM 6122 Principles and Practice of Optometry V: Tissue Evaluation of the Posterior Segment (5.50 credit hours, graded)**

As the fifth course in the series, new material will be integrated within the context of the primary care optometric examination. Emphasis will be placed on health assessment of the posterior ocular segment and the optic disc. Strategy of the examination, sequencing, patient communication, and medical record keeping will be included. This course completes the integration of clinical skills into the complete primary care eye examination. Ocular health assessment including tonometry, gonioscopy, binocular indirect ophthalmoscopy, and techniques for assessing the retina such as the use of the 78D lens, 90D lens, and three-mirror and four-mirror lenses will be emphasized. The diagnosis and management of common ocular health conditions affecting the vitreous and retina and the clinical thought processes for patient care will be incorporated. Strategy of the examination, sequencing, patient communication, and medical record keeping will be included. Work in this course begins in the preceding Fall Semester, however, registration and receipt of the final grade occurs in the Spring Semester.

**OPTM 6141 Vision Science V: Behavioral Optometry (3.00 credit hours, graded)**

This course covers concepts related to accommodation, binocular vision, and ocular motility. Concepts including the horopter, stereopsis, vision, rivalry, and aniseikonia are covered. The anatomy and physiology of the extraocular muscles, innervations and actions associated with types of eye movements and their control mechanisms are reviewed. Concepts of clinical assessment, diagnosis, and management are introduced. Case examples are used to illustrate key concepts.

**OPTM 6171 Ocular Disease II: Diagnosis and Treatment of Glaucoma (3.00 credit hours, graded)**

This course covers the pathophysiology, diagnosis, treatment and management of patients with all forms of glaucoma, with an emphasis on evidence-based therapeutic interventions. Topical and systemic medical therapies will be emphasized. The course will also discuss current surgical management of various forms of glaucoma.

**OPTM 6182 Behavioral Optometry: Diagnosis and Treatment (7.50 credit hours, graded)**

This course introduces the common signs and symptoms associated with non-strabismic disorders of the binocular, accommodative, and perceptual systems. Diagnosis, treatment, management and problem solving for common conditions will be introduced. Techniques for vision therapy and vision therapy programming will be discussed.

**OPTM 6241 Evidence Based Eye Care (1.50 credit hours, Honors/Pass/Remedial/Fail)**

This course will emphasize the application of published literature to clinical decision making. Students will learn how to select and critique appropriate and relevant information within the context of patient care scenarios. Strategies for informed clinical decision making and for life-long learning will be demonstrated.

**OPTM 6261 Practice Management II (3.00 credit hours, graded)**

This practical seminar-style course will bring experts from the fields of marketing, management, finance, and law to help students develop personal strategies for their professional futures. Professional goal-setting, networking, and leadership will be emphasized.

**OPTM 7001 Patient Care Services I (3.50 credit hours, Honors/Pass/Remedial/Fail)**

Students will spend 8 hours per week for 7 weeks participating in community-based vision screenings. Techniques learned in Principles and Practice of Optometry 1 will be applied in the delivery of patient care via screenings. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7002 Patient Care Services II (4.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to 4 hours per week in the off-campus clinics or optometric practices and in the on-campus clinical facility performing entrance testing and assisting in the optical dispensary service. Students will be supervised by licensed optometrists who are faculty or members.

**OPTM 7003 Patient Care Services III (4.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to 4 hours per week of patient care service and will participate in a variety of activities including community-based screenings, technician and paraoptometric responsibilities in the on-campus clinical facility, and a clerkship program with local optometric practices. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7004 Patient Care Services IV (4.50 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to 4 hours per week of patient care services with increasing roles and responsibilities. Activities will include community-based eye care, clerkship programs, and will transition to the provision of complete eye examinations by the end of the spring semester. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7005 Patient Care Services V (14.00 credit hours, Honors/Pass/Remedial/Fail)**

To facilitate the transition to assuming the role the primary examiner, students will be assigned to primary eye care services 32 hours per week for 7 weeks. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7006 Patient Care Services VI (14.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to 12 hours per week of patient care in primary eye care, contact lenses, and vision therapy. Students will assume an increasing role and increasing responsibility for the delivery of patient care. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7007 Patient Care Services VII (13.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to 12 hours per week of patient care in primary eye care, contact lenses, and vision therapy. Students will assume an increasing role and increasing responsibility for the delivery of patient care. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7008 Patient Care Services VIII (30.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to full-time clinical rotations providing patient care in primary eye care, specialty eye care, and rehabilitation. The order of rotations will vary by student assignment and will change every 12 weeks. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7009 Patient Care Services IX (30.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to full-time clinical rotations providing patient care in primary eye care, specialty eye care, and rehabilitation. The order of rotations will vary by student assignment and will change every 12 weeks. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7010 Patient Care Services X (30.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to full-time clinical rotations providing patient care in primary eye care, specialty eye care, and rehabilitation. The order of rotations will vary by student assignment and will change every 12 weeks. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 7011 Patient Care Services XI (30.00 credit hours, Honors/Pass/Remedial/Fail)**

Students will be assigned to full-time clinical rotations providing patient care in primary eye care, specialty eye care, and rehabilitation. The order of rotations will vary by student assignment and will change every 12 weeks. Assignments may be made at the on-campus clinical facility or in affiliated clinical sites. Students will be supervised by licensed optometrists who are faculty or adjunct clinical faculty members.

**OPTM 8011 Contact Lenses II: Theory and Practice (6.00 credit hours, graded)**

This course builds upon the basic knowledge presented in Contact Lenses 1. Case examples will be used to encourage independent decision making for complicated problems in contact lens fitting. Strategies for specialized contact lenses including keratonic lenses, therapeutic lenses, post-surgical patients and contact lenses for infants will be discussed.

**OPTM 8012 Special Considerations in Pediatrics (2.50 credit hours, graded)**

This course emphasizes the optometric care of patients from birth through age eight. The identification of children at risk for developing ocular, visual, perceptual, or visually-related learning problems will be integrated with a discussion of strategies for diagnosis and management. Schema of normal growth and development with an emphasis on expected visual development from birth through childhood will be presented. Particular emphasis will be placed on prevalent conditions, and conditions with a high level of clinical criticality. An overview of care for children with special needs will also be presented. Examination techniques unique to the pediatric patient, including the use of hand-held instrumentation, special testing, and the provision of eye care in the school system will be discussed.

**OPTM 8013 Special Considerations in Geriatrics (2.50 credit hours, graded)**

This course will discuss the changes expected in the visual system associated with the aging process. Diagnosis and treatment of selected refractive conditions, eye diseases, and visual anomalies common in aging adults will be presented. Psychosocial aspects and geriatric case management will be incorporated into case examples. Examination techniques unique to the geriatric patient, including the use of hand-held instrumentation, special testing, and the provision of eye care in long term care facilities will be discussed.

**OPTM 8021 Special Procedures in Optometry (4.00 credit hours, graded)**

This course will cover the theory and methods of clinical techniques that build upon basic examination skills acquired during the courses Principles and Practice of Optometry I through 5. Clinical techniques including sclera depression, punctal occlusion, punctal dilation and irrigation, removal of foreign bodies from the cornea and conjunctiva, and injection techniques will be presented in a hands-on format.

**OPTM 8071 Neuro-Ocular Disease: Diagnosis and Treatment (2.50 credit hours, graded)**

A problem-oriented approach is used to explore the diagnosis and treatment of oculomotor, accommodative, sensory, and vergence problems. The diagnosis and management of strabismus and amblyopia will also be presented. Advanced assessment of associated

anomalies such as eccentric fixation, suppression, anomalous correspondence, and nonconcomitancy is presented. The rationale and methods for various treatment strategies will be presented.

**OPTM 8072 Ocular Disease III: Diagnosis and Treatment of the Posterior Segment (3.00 credit hours, graded)**

This course builds upon the framework presented in the Principles and Practice of Optometry curricular track to present advanced concepts in ocular disease management. The anatomical, physiological, histological, and pathological processes of ocular disease will be emphasized. Topics include in-depth discussion of diseases and abnormalities of the lids, cornea, conjunctiva, sclera, episclera and lens. Pathophysiology and management of glaucoma is also included. Laboratory experience in advanced visual field assessment and interpretation of the results and imaging of the lens and anterior segment will be presented. Clinical techniques including ocular cultures, punctal occlusion, punctal dilation and irrigation, foreign body removal, and injection techniques will be presented in a hands-on format.

**OPTM 8081 Neuro-Optometric Rehabilitation I: Strabismus and Amblyopia (3.50 credit hours, graded)**

This course builds on the knowledge and skills developed in the course, Behavioral Optometry Diagnosis and Treatment, and extends the application of that knowledge and those skills to the strabismic disorders and amblyopia. Topics will include differential diagnosis of congenital and acquired strabismus and the etiology and differential diagnosis of amblyopia, as well as a comprehensive presentation of evidence-based treatment options for both strabismus and amblyopia.

**OPTM 8082 Neuro-Optometric Rehabilitation II: Patient with Neurological Damage (4.50 credit hours, graded)**

This course elaborates on the complexities of optometric care for patients who have suffered neurological impairment from a variety of etiologies. Ocular sequelae and the visual consequences of neurological disease will be discussed. Perceptual problems associated with dyslexia, reading and learning disabilities, developmental abnormalities, stroke, Alzheimer's disease, and traumatic brain injury will be explored. Co-management and interprofessional communications will be discussed. Practical aspects of neurological evaluation and assessment of the cranial nerves is included in the laboratory portion. Tests for cognitive function, memory, and perception will be discussed. Various methods and techniques for rehabilitation will also be presented in a hands-on format.

**OPTM 8101 The Eye in Systemic Disease (2.50 credit hours, graded)**

This course presents an overview of the most prevalent systemic conditions, and systemic conditions with significant ocular manifestations. Pathophysiology, clinical signs and symptoms, and an overview of diagnostic and management approaches will be presented. Emphasis will be placed on inter-professional communications for management of complex conditions.

**OPTM 8102 Systemic Pharmacology: Top 40 Medications (1.00 credit hour, graded)**

This course will cover medications commonly prescribed for systemic conditions, their indications and mode of action, as well as their ocular and visual side effects and toxicities.

**OPTM 8111 Low Vision Rehabilitation (5.00 credit hours, graded)**

This course presents examination techniques and management strategies for people with visual impairments. Principles of optical and non-optical assistive devices and applications of rehabilitative services will be discussed. Psychosocial aspects and interdisciplinary care are included. Evaluation of visual disability and legal aspects of visual impairment will be discussed. The laboratory experience will provide hands-on opportunities to learn about rehabilitation techniques.

**OPTM 8121 Patient Presentations in Primary Eye Care (4.00 credit hours, graded)**

This course reviews information previously taught in the curriculum but reorganizes it on the basis of patient presentation. Topics include the patient who presents with blurry vision, loss of vision, diplopia, anisocoria, facial asymmetry, eye or head pain, asthenopia, and red eye. The emphasis of the course is on differential diagnostic thought processes and the problem-focused case history. Key questions to ask and formal algorithms for diagnosis will be presented for each presentation.

**OPTM 8161 NBEO Review (6.00 credit hours, graded)**

This course will cover previously taught material that is relevant to Part I of the National Board of Examiners in Optometry and will include review of factual material as well as sample test items prepared by the course instructor(s).

**OPTM 8162 Elective I (1.00 credit hour, graded)**

Students may choose from a variety of course offerings to further their understanding of contemporary topics in optometry or in health care. Courses will be offered on topics relevant to students enrolled in all health professions programs and will encourage further interdisciplinary interactions. Topics may include, but are not limited to, nutrition, genetics, Spanish for health care providers, health care for vulnerable populations, international health, and so on.

**OPTM 8163 Elective II (1.00 credit hour, graded)**

Students may choose from courses in health care topics or in advanced optometric topics such as co-management of refractive surgery patients, advanced contact lens techniques, clinical grand rounds, etc.

**OPTM 8191 Service Learning III (0.50 credit hour, graded)**

Service learning will culminate in the final formalized experience in community involved learning. Students will reflect upon their experiences and the impact service learning has had on their own personal and professional development through the preparation of a capstone portfolio.

**OPTM 9061 Practice Management III: Web-based (1.50 credit hours, graded)**

This course will provide information relevant to entry into the business of clinical optometric practice, including information on billing and coding, employee relations, how to navigate the process of becoming a panel member, considerations in partnership formation, leasing and managing the facilities, entrepreneurship, sales and marketing of spectacles, contact lenses, and vision therapy, and tips on how to grow a patient base.

**ACADEMIC CALENDAR**  
**2009-2010 Academic Year**  
(subject to change)

**Fall, 2009**

Monday, Aug. 3 – Friday, Aug. 7, 2009  
Orientation

Saturday, Aug. 8, 2009  
Convocation/White Coat Ceremony

Monday, Aug. 10, 2009  
Fall Semester begins

Monday, Sept. 7, 2009  
Labor Day (no classes)

Monday, Oct. 12, 2009  
Columbus Day (no classes)

Thursday, Nov. 27 – Friday, 28, 2009  
Thanksgiving  
(classes end Wed, Nov. 25 noon)

Friday, Dec. 18, 2009  
Last day of Fall Semester classes/Winter Recess begins

**Spring, 2010**

Monday, Jan. 4, 2010  
Spring Semester begins

Monday, Jan. 18, 2010  
Martin Luther King Day Holiday (no classes)

Monday, Feb. 15, 2010  
President's Day (no classes)

Monday, Mar. 22 – Friday, Mar. 26, 2010  
Spring Break

Friday, May 28, 2010  
Last day of Spring Semester classes

**THE OPTOMETRIC OATH**

With full deliberation I freely and solemnly pledge that: I will practice the art and science of optometry faithfully and conscientiously, and to the fullest scope of my competence. I will uphold and honorably promote by example and action the highest standards, ethics and ideals of my chosen profession and the honor of the degree, Doctor of Optometry, which has been granted me.

I will provide professional care for those who seek my services, with concern, with compassion and with due regard for their human rights and dignity.

I will place the treatment of those who seek my care above personal gain and strive to see that none shall lack for proper care.

I will hold as privileged and inviolable all information entrusted to me in confidence by my patients.

I will advise my patients fully and honestly of all which may serve to restore, maintain or enhance their vision and general health.

I will strive continuously to broaden my knowledge and skills so that my patients may benefit from all new and efficacious means to enhance the care of human vision.

I will share information cordially and unselfishly with my fellow optometrists and other professionals for the benefit of patients and the advancement of human knowledge and welfare. I will do my utmost to serve my community, my country and humankind as a citizen as well as an optometrist.

I hereby commit myself to be steadfast in the performance of this my solemn oath and obligation.

*Adopted by the American Optometric Association*