

Status: NEW

PROGRAM REQUEST
Optometry

Last Updated: Bullimore, Mark A
03/15/2011

Fiscal Unit/Academic Org	Optometry - D2700
Administering College/Academic Group	Optometry
Co-administering College/Academic Group	
Semester Conversion Designation	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
Current Program/Plan Name	Optometry
Proposed Program/Plan Name	Optometry
Program/Plan Code Abbreviation	OPTMTRY-OD
Current Degree Title	Doctor of Optometry

Credit Hour Explanation

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		270	180.0	200.5	20.5
Required credit hours offered by the unit	Minimum				
	Maximum				
Required credit hours offered outside of the unit	Minimum				
	Maximum				
Required prerequisite credit hours not included above	Minimum				
	Maximum				

Explain any change in credit hours if the difference is more than 4 semester credit hours between the values listed in columns B and C for any row in the above table

We have applied the overarching principle that one semester credit hour should require 2250 minutes, or 37.5 hours inside and outside the classroom. This formula has been applied for 14- and 12-week lecture/laboratory courses and also for 17- and 13-week clinic rotations.

A full-time, 13-week clinic rotation during the fourth year would involve 520 hours of patient care. Applying the 37.5 hours per semester credit formula results in 13.9 credits. Given that a student will likely spend some additional time, this is rounded up to 15 credits. Thus a half-day, 13-week clinical experience represents 1.5 credits.

Likewise, a half-day, 17-week clinic rotation during the third year involves 68 hours of patient care. Applying the 37.5 hours per semester credit formula results in 1.8 credits. Given that the student likely spends some additional time, this is rounded up to 2 credits.

One result of this rigorous approach is an apparent increase in the number of credit hours for the fourth year. In the quarter system, fourth year students take 66 credits, which translates to 44 semester credits using the two-thirds conversion formula. With the above approach, the actual number is 60 units. This discrepancy is due largely to a lack of rigor in assigning credit hours under the quarter system. As stated previously, a full-time, 13-week clinic rotation during the fourth year involves 520 hours of patient care. Assuming that one quarter credit hour represents 30 hours results in 17.3 credits. The additional time preparing reports and reading about diagnoses and treatments would give 20 credits, compared to the 15 credits used in Table 5. Had the college applied this formulaic approach in the past, the current fourth year would represent 80 quarter credit hours. A compounding factor is that as a year-round program the conversion is from four quarters to three semesters, thus a 3/4ths conversion factor should be applied.

Program Learning Goals

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

Program Learning Goals •

Assessment

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Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? Yes

Does the degree program or major have an assessment plan on file with the university Office of Academic Affairs? No

DIRECT MEASURES (means of assessment that measure performance directly, are authentic and minimize mitigating or intervening factors)

Standardized tests

- National standardized examination
- Certification or licensure examinations

INDIRECT MEASURES (means of assessment that are related to direct measures but are steps removed from those measures)

Surveys and Interviews

- Student survey
- Alumni survey
- Student evaluation of instruction
- Student interviews or focus groups

Additional types of indirect evidence

- External program review
- Curriculum or syllabus review
- Comparison or benchmarking

USE OF DATA (how the program uses or will use the evaluation data to make evidence-based improvements to the program periodically)

- Analyze and discuss trends with the unit's faculty
- Analyze and report to accrediting organization
- Make improvements in curricular requirements (e.g., add, subtract courses)
- Make improvements in course content
- Make improvements in course delivery and learning activities within courses

Program Specializations/Sub-Plans

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

Pre-Major

Does this Program have a Pre-Major? No

Attachments

Comments

Workflow Information

Doctor of Optometry Program Plan

A. Program Rationale Statement

Background

The Doctor of Optometry program is a four-year graduate professional curriculum leading to the Doctor of Optometry degree. The program prepares graduates to pass the three-part National Board of Examiners in Optometry (NBEO) licensure exams and thus become licensed optometrists. Optometry is a legislated profession and the scope of practice varies among the U.S. states. While over half of the College's students enter the program as Ohio residents and a similar proportion will practice in the state, the College strives to prepare its graduates to practice full-scope optometry in any state. Changes to the scope of practice occur frequently so the College also prepares its graduates for lifelong learning.

The OSU Optometry program is accredited by the Accreditation Council on Optometric Education (ACOE). The College's accreditation status is reviewed every seven years with next self-study and Council visit scheduled for 2012. The College has informed the ACOE of the impending transition to semesters and the modest change to the content of the program. The upcoming self-study will describe both the quarter- and semester-based curricula.

Process

The College reviews and enhances the professional curriculum on an ongoing basis. The 18-person Curriculum Committee meets monthly for 1.5 hours. In addition, broad discussion of the professional program featured prominently in the formulation of the College's 2008 Strategic Plan. In 2006 the Dean charged an *ad hoc* committee with a broader programmatic review of the professional program. The committee made the following six recommendations, the majority of which have been implemented:

1. Establishing a Keystone Course Series
2. Organizing the curriculum into core sequences with a coordinator serving on the curriculum committee
3. Integrating basic science into clinic and clinic science into lectures
4. Increasing use of the technology of teaching
5. Increasing specialty education
6. Implementing a practice of optometry course series

Recommendations 2, 3, and 4 are organizational or philosophical and have been implemented. Recommendation 6 is ongoing and the faculty as a whole is engaged in discussion of how to give our students meaningful experience with patients earlier in the program. Recommendation 5 has been implemented and fourth-year students have some opportunity to select, and even develop, externships in specialty optometric practice settings. The most significant change to the Optometry curriculum has been the implementation of two intensive Keystone courses; an eight-day course at the end of the first year, and a five-day course at the end of the summer quarter of the third year, i.e., midway through the program. These capstone courses integrate basic science and patient care using a series of cases that require research and discussion.

For the past twelve months the curriculum committee's workload has been dominated by the conversion to semesters. Review began by each of the core sequence coordinators leading a review of their respective courses and continued with discussion between coordinators. The Curriculum Committee then reviewed the core sequence proposals and integrated the new courses into a semester-based curriculum. Finally, all College faculty and students were given the opportunity for comment.

In summary, curriculum review and evaluation has been an active and ongoing process within the College of Optometry and the transition to semesters was an extension of this culture. As a result there are no major changes in curriculum content. Thus, our *Semester Conversion Designation* is "Converted with minimal changes to program goals and/or curricular requirements."

Overview of Changes

At present, the Doctor of Optometry program is a four-year, 14-quarter program. First and second year students are enrolled in three quarters per year, and third and fourth students are enrolled year round.

The proposed semester-based Doctor of Optometry curriculum is shown in Figure 1. A ten-semester program is proposed with first and second year students enrolled for two semesters per year and third and fourth year students enrolled year round.

We are still considering the possibility of utilizing the May Term at the end of the first year. The first-year course, Optometry 6190 Introduction to Clinical Diagnostic Reasoning in Optometry, will either be taught at the end of the spring semester or in the first week of the May term.

For third year students, the May and Summer terms will be combined into a 12-week summer semester. Optometry clinical services run year round, so the third year patient-based clinical courses will run for 17 weeks each semester. This is similar to the current quarter system where third year students are enrolled in 13-week clinic courses.

For fourth year students, students participate in clinical rotations year round. The fourth year (May to May) will be divided into **four 13-week rotations**. This is identical to the current quarter system where fourth year students are enrolled in 13-week clinic courses. There is precedent among health science programs for running clinical rotations on a different schedule from the academic calendar, and while the details are yet to be finalized, our understanding is that students will register for one 13-week rotation for the Summer and Autumn semesters and *two rotations* for the Spring Semester. Grades may be submitted on the semester schedule, but the College will develop internal guidelines such that the successful completion of one rotation is necessary for participation in a subsequent rotation.

Optometry Semester Outline

	Spring	May	Summer	Fall
2012				14-week didactic
2013	14-week didactic	4-week		14-week didactic
2014	14-week didactic	12-week didactic 17-week clinical		14-week didactic 17-week clinical
2015	14--week didactic 17-week clinical	13-week clinical	13-week clinical	13-week
2016	clinical	13-week clinical		

First Year
Second Year
Third Year
Fourth Year

Figure 1. The semester-based Doctor of Optometry curriculum.

Organization and Numbering System

The optometry curriculum is organized into eight Core Sequence Areas:

1. Systemic Structure and Disease
2. Practice Management
3. Vision Science and Perception
4. Optometric Clinical Examination
5. Optics and Refractive Conditions
6. Professional Orientation and Public Health
7. Ocular Structure and Disease
8. Clinical Experience

The following system is used for all courses under the semester system:

6xy0 and 7xy0

Where x defines the above core sequence and y is an integer giving some indication of when the course falls within the curriculum. Thus seven core sequences have the following course numbers:

Systemic Structure and Disease	61y0 and 71y0
Practice Management	62y0 and 72y0
Vision Science and Perception	63y0 and 73y0
Optometric Clinical Examination	64y0 and 74y0, but not 6450 or 7450 (see below)
Optics and Refractive Conditions	65y0 and 75y0
Professional Orientation and Public Health	66y0 and 76y0
Ocular Structure and Disease	67y0 and 77y0

The patient-based Clinical courses that represent the eighth core sequence are numbered 6450.zz for third year clinical courses and 7450.zz for fourth year clinical courses. This is due, in part, to precedent—the quarter courses are numbered 645.zz and 745.zz—but to also emphasize the strong link with the Optometric Clinical Examination core sequence.

B. List of Semester Courses

The semester courses for the Doctor of Optometry program are listed on the next two pages. The transcript abbreviations are listed in addition to the full course title. Courses are listed for the three semesters followed by the patient-based clinical courses that run year round.

Courses are listed as either Vision Science or Optometry. The Vision Science courses are more prevalent in the first and second years and are typically, though not always, foundation courses. These courses are available for either graduate or professional credit. In contrast, the Optometry courses are more clinical or applied in nature.

All of the proposed courses are a *Modified Course* (14), a *Semester Equivalent of a Quarter Course* (34), or a *Semester Equivalent of a Quarter Course Sequence* (7). There are two Optometry course requests that are not part of the required coursework—Optometry 6450.05 and Optometry 745.01. These are additional clinical experiences intended as electives, but could become required courses in the future.

Table 1. First year courses for semester-based Doctor of Optometry curriculum.

Autumn Optometry 1				
Vision Science	6100	General and Histological Anatomy	GENERAL ANATOMY	4
Vision Science	6130	Pathophysiology I	PATHOPHYSIOLOGY I	5
Vision Science	6160	Biochemistry for Optometry	BIOCHEMISTRY	1
Vision Science	6200	Optometric Career Options and Financing	CAREER OPTIONS	2
Vision Science	6500	Geometric Optics	GEOMETRIC OPTICS	5
Vision Science	6610	Epidemiology and Biostatistics for Optometry	EPIDEMIOLOGY	1
Vision Science	6700	Ocular Anatomy	OCULAR ANATOMY	4
Spring Optometry 1				
Vision Science	6110	General and Visual Neuroanatomy	NEURO ANATOMY	4
Vision Science	6140	Pathophysiology II	PATHOPHYSIOLOGY II	5
Vision Science	6170	Microbiology for Optometry	MICROBIOLOGY	1
Vision Science	6520	Optics of the Eye	OPTICS OF THE EYE	3
Vision Science	6540	Light and Lasers	LIGHT AND LASERS	3
Vision Science	6720	Ocular Physiology	OCULAR PHYSIOLOGY	3
Optometry	6190	Introduction to Clinical Diagnostic Reasoning in Optometry	INTRO CLIN DX REAS	2
Optometry	6620	Practice of Optometry	PRACTICE OF OPTOM	1

Table 2. Second year courses for semester-based Doctor of Optometry curriculum.

Autumn Optometry 2				
Vision Science	6300	Visual Neurophysiology and Perception	VIS NEURO PERCEPT	5
Optometry	6400	Optometric Examination	OPTOMETRIC EXAM	5
Optometry	6560	Ophthalmic Optics	OPHTHALMIC OPTICS	5
Optometry	6760	Primary Care Techniques	PRIM CARE TECHNIQ	2
Optometry	7710	Anterior Segment Ocular Disease	ANT SEG DISEASE	4
Spring Optometry 2				
Vision Science	6180	Basic and Ocular Pharmacology	PHARMACOLOGY	4
Vision Science	6320	Eye movements and Binocular Vision	BINOCULAR VISION	5
Optometry	6220	Coding and Reimbursement	CODING	1
Optometry	6420	Diagnosing and Prescribing	DIAGNOS PRESCRIB	2
Optometry	6440.01	Introduction to Primary Care	INTRO PRIMARY CARE	1
Optometry	6770	Ocular Disease Techniques	OCULAR DIS TECHNIQ	2
Optometry	7720	Posterior Segment Ocular Disease	RETINAL DISEASE	3

Table 3. Third year courses for semester-based Doctor of Optometry curriculum. Courses are listed for the three semesters followed by the patient-based clinical courses that run year round. The credit hours in the final column are the total for each clinical course across the entire third year.

Summer Optometry 3

Optometry	7190	Intermediate Clinical Diagnostic Reasoning in Optometry	INTER CLIN DX REAS	2
Optometry	7420	Vision of Children	VISION OF CHILDREN	2
Optometry	7500	Contact Lenses	CONTACT LENSES	3
Optometry	7730	Ocular Neurology	OCULAR NEUROLOGY	3
Optometry	7770	Clinical Ocular Pharmacology	CLIN OCULAR PHARM	4

Autumn Optometry 3

Optometry	6240	Third-Party Payment Plans	THIRD PARTY PLANS	1
Optometry	6450.05	Vision Screening	VISION SCREENING	2
Optometry	7140	Systemic Disease for Optometry	CLINICAL MEDICINE	3
Optometry	7440	Clinical Binocular Vision	CLIN BINOC VISION	5
Optometry	7520	Advanced Contact Lenses	ADV CONTACT LENS	3
Optometry	7740	Management of Glaucoma	GLAUCOMA	2

Spring Optometry 3

Vision Science	7620	Public Health and Environmental Vision	PUB HEALTH ENV VIS	4
Optometry	7160	Injections, Lasers and Advanced Ocular Techniques	INJECTIONS LASER	0.5
Optometry	7210	Optometric Economics and Jurisprudence, Practice Analysis and Practice Systems	OPTOM ECONOMICS	3
Optometry	7460	Low Vision Rehabilitation and Gerontology	LOW VISION GERONT	5
Optometry	7790	Surgery and Comanagement of Ocular Disease	SURGERY COMANAGING	2

Clinic Optometry 3 Year-Round

Optometry	6450.01	Primary Care Practice	PRIMARY CARE	8
Optometry	6450.02	Ophthalmic Dispensing	OPHTHAL DISPENSING	2
Optometry	6450.03	Introduction to Contact Lenses	INTRO CONTACT LENS	1
Optometry	6450.04	Ocular Disease Practice	OCULAR DISEASE	2

Table 4. Fourth year courses for semester-based Doctor of Optometry curriculum. All courses are 13-weeks long and run year round. The credit hours in the final column are the total for each clinical course across the entire fourth year.

Optometry 4

Year-Round

Optometry	7240	Clinical and Business Aspects of Practice	CLIN BUSINESS PRAC	3
Optometry	7450.02	Ophthalmic Dispensing	DISPENS MANAGEMENT	1.5
Optometry	7450.03	Contact Lenses and Primary Care	CONTACT LENSES	6
Optometry	7450.05	Binocular Vision and Pediatrics	BINOC VISION PEDS	6
Optometry	7450.06	Vision Rehabilitation	VISION REHAB	1.5
Optometry	7450.11	Ocular Disease Externship	DISEASE EXTERN	15
Optometry	7450.12	Primary Care Externship	PRIM CARE EXTERN	12
Optometry	7450.13	Advanced Care Externship	ADVANCED EXTERN	15

Determination of Credit Hours

We have applied the overarching principle that one semester credit hour should require 2250 minutes, or 37.5 hours inside and outside the classroom. This formula has been applied for 14- and 12-week lecture/laboratory courses and also for 17- and 13-week clinic rotations.

A full-time, 13-week clinic rotation during the fourth year would involve 520 hours of patient care. Applying the 37.5 hours per semester credit formula results in 13.9 credits. Given that a student will likely spend some additional time preparing reports and reading about diagnoses and treatments, this is rounded up to 15 credits. Thus a half-day, 13-week clinical experience represents 1.5 credits.

Likewise, a half-day, 17-week clinic rotation during the third year involves 68 hours of patient care. Applying the 37.5 hours per semester credit formula results in 1.8 credits. Given that the student likely spends some additional time preparing reports and reading about diagnoses and treatments, this is rounded up to 2 credits.

One outcome of the above rigorous approach is an apparent increase in the number of credit hours for the fourth year. In the quarter system, fourth year students take 66 credits, which translates to 44 semester credits using the two-thirds conversion formula. With the above approach, the actual number is 60 units. This discrepancy is due largely to a lack of rigor in assigning credit hours under the quarter system. As stated previously, a full-time, 13-week clinic rotation during the fourth year involves 520 hours of patient care. Assuming that one *quarter* credit hour represents 30 hours results in 17.3 credits. The additional time preparing reports and reading about diagnoses and treatments would give 20 credits, compared to the 15 credits per quarter used in the creation of Table 5. Had the college applied this formulaic approach in the past, the current fourth year under the quarter system would represent 80 quarter credit hours. A compounding factor is that as a year-round program the conversion is from four quarters to three semesters, thus a 3/4ths conversion factor could easily be applied.

Table 5. Credit Hour Explanation.

Program credit hour requirements	A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3 of current (Semester credit hours) required	C) Credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total credit hours required	270	180	200.5	+20.5
Credit hours in first year	66	44.0	44	0
Credit hours in second year	58	38.7	39	+0.3
Credit hours in third year	80	53.3	57.5	+4.2
Credit hours in fourth year	66	44.0	60	+16.0

C. Transition Policy

Students in the optometry program move through the program in lock step. Thus an entire class will complete one year under the quarter system and begin the next under the semester system. There are, however, a few nuances.

First, a small number of students encounter academic difficulties, usually in the first year, and have to retake one or more courses. In such cases during the transition to semesters, any such student will have to take all courses for that year under the semester system.

Second, the summer of 2012 will be shorter by 4 weeks. In essence, there will be no May Term, and only 8 weeks will be available for instruction, rather than the 12 weeks that will form the Summer Term in 2013 and beyond. This will impact the Class of 2014 who will enter the third year of the program in 2012. We will adhere to the 37.5 hours per semester credit hour model for the Summer Term in 2012, scheduling additional classroom hours when necessary or temporarily adjusting the credit hours when appropriate.

Third, the transition to semesters will also result in a shortened Academic Year for the Class of 2013 in their fourth year. For this class of fourth-year students the four clinical rotations will be shortened to around 12 weeks.

Finally, the redistribution of the mater from Vision Science 520 (first year) between Vision Science 6540 (first year) and Vision Science 6300 (second year) means that the Class of 2015 will have receive some of the material for Vision Science 6300 during the first year.