Use of technology description:

In my Geometric and Clinical Optics class, I use a web-based, interactive demonstration of ray tracing for thin lenses and mirrors. I also just learned (this week) about several ebooks for iPad that incorporate videos and animations to enhance learning. Both are authored by Mark Bullimore; one is on Geometric Optics, the other is Ophthalmic Optics. I am going to tell my class about both iBooks and recommend them.

In my Ophthalmic Optics course, we have a lab demonstration in Optical Services of the Essilor Visioffice system for automatic, high-precision fitting measurements. These are specifically suited for the free-form, personalized PALs, but can be used for any Rx or lens design. The Visioffice device also has impressive “high-tech” patient education tools simulating glare-free lenses, polarized sunglasses, photochromic (Transitions) lenses, occupational lenses, and high-index lenses.
OPT 112  Geometric & Clinical Optics: Syllabus

2014-15 Fall Semester

Course instructor
Adam Gordon, O.D.
HPB Room 507
975-8545
agordon@uab.edu

Lectures
Tuesdays  1:00-3:00 PM    Room 203
Thursdays 1:00-3:00 PM    Room 203

Labs
Wednesdays 1:00-3:00 PM    Room 204    Groups C & D
Wednesdays 3:00-5:00 PM    Room 204    Groups A & B
Note: Labs are not scheduled every week, so please check the schedule carefully.

Credit
5 semester hours

Required Texts
1. The Geometrical Optics Workbook
   David S. Loshin
   Butterworth-Heinemann, 1991
   ISBN 0-7506-9052-6

2. System For Ophthalmic Dispensing, 3rd edition
   Clifford W. Brooks, O.D.
   Irvin M. Borish, O.D., D.O.S.

Optional Reference
Steven H. Schwartz
McGraw-Hill, 2013

Required Equipment
Scientific calculator (sin, cos, tan, exponential notation, square roots)
Course Overview
The ultimate goal of most optics courses is to help the student understand: the optical properties of the eye, particularly refractive conditions; principles of refractive correction; and the optical basis of clinical instrumentation. At UAB, there are several courses taught over the first two years directed toward this goal, including: Geometric and Clinical Optics; Visual Optics; Ophthalmic Materials; and the CEVS course sequence.

The first part of the course will introduce the subject of geometric optics. This portion begins with basic concepts of light, refraction, and reflection, which then leads to the properties of lenses, mirrors, and prisms. Light rays are used to illustrate how optical elements interact with and “bend” incoming light. The bending of light rays is quantified using the concept of “vergence.” You will learn how images are formed, whether they are real or virtual, and magnified or minified. The correction of myopia and hyperopia with spectacle lenses and contact lenses will be described. We will introduce refraction through multiple lens systems, since the eye is a multi-element refracting system, as are most clinical instruments. The properties of cylinders and spherocylindrical lenses will be introduced, since this is important in the clinical correction of astigmatism. The course will also introduce magnifying devices, such as telescopes, hand magnifiers, and stand magnifiers. These devices are used to improve visual functioning of patients with central vision loss (“low vision”) from age-related macular degeneration, glaucoma, and other diseases.

The second part of the course, clinical optics, will introduce the clinical aspects of ophthalmic lenses and optical dispensing. The refractive, prismatic, and magnification effects of ophthalmic lenses will be covered in detail. The laboratory section emphasizes proficiency using the lensometer and other instruments to measure single vision, bifocal, and trifocal lenses. Clinical procedures for fitting spectacle lenses are introduced. Several lab sessions take place in the Optical Services department on the clinic floor. These sessions are designed to introduce you to clinical aspects of frame and lens selection and standard optical measurements for single vision, bifocal, and trifocal lenses. Progressive addition lenses are covered in a later course, Ophthalmic Materials.

Problem-Solving
The subject of geometric optics is, by definition, mathematical and quantitative. In this course we will use basic algebra and geometry, and therefore a good scientific calculator is required. One of the major ways to illustrate concepts and assess learning is by use of word problems that require one or more calculations. Many formulas are used, but it is generally not necessary for you to derive or memorize them. The student must become proficient in solving problems by: (1) recognizing which formula is needed; (2) knowing how the formula is utilized; (3) using the correct sign (+ or -) and appropriate units; and (4) understanding the application or relevance of the calculated answer. A common error found early in the course involves the omission of + or – signs, and/or not understanding the relevance of these signs.
Your textbook contains many problems that are solved within the text and each chapter has problems (with answers) at the end of the chapter. I will also provide supplemental problem sets (with answers) to give you additional practice.

**What do I expect from you?**

I expect you to...
- Attend all classes and labs
- Be proactive by reading the textbook assignments and attempting to solve appropriate problems in advance of lectures. You are responsible for all assigned material, even if time constraints prevent coverage in class.
- Actively participate in class and lab activities

**Grading**

The course grade will be determined on the basis of 5 exams, laboratory activities, and quizzes. The breakdown is as follows:

- Exam 1 - 15%
- Exam 2 - 15%
- Exam 3 - 15%
- Exam 4 - 15%
- Exam 5 - 15%
- Lab Activities - 15%
  - GO Labs: 30% of Lab grade (4.5% of course grade)
  - Skill Assessment: 70% of lab grade (10.5% of course grade)
- Quizzes - 10%

Numerical course grades will be converted to letter grades using the following ranges:

- A 90 – 100%
- B 80 – 89%
- C 70 – 79%
- F < 70%

**Exams**

All exams/quizzes given in this course are secure exams and not intended for release. The content of a secured exam must not be acquired, received, recreated, shared, copied, or distributed without the instructor’s expressed written permission. Doing so is a direct violation of the Honor Code which governs the actions and responsibilities of students enrolled in the UAB School of Optometry.

**Learning Objectives and Clinical Relevance Points**

Learning objectives are provided for each chapter and/or topic covered in this course. These objectives represent the main concepts to be understood and mastered by the student. My hope is that these will help answer the question: “What do we have to
know for the test?” The learning objectives are for your benefit - they do not need to be handed in for a grade. The Clinical Relevance Points (CRP’s) highlight the important clinical correlates of the course material. These also are provided to help you in exam preparation.

You are expected to work all of the problems in the text and supplemental handouts. I encourage you to attempt these problems on your own. I will devote significant class and lab time to working representative problems with you.

**Access to Coursemaster**
I have an open-door policy, which means I will be happy to meet with you any time our schedules permit. I encourage you to meet with me any time you have questions not addressed in class, desire clarification of any topic, or want to individually review exams. Feel free to contact me by email or phone.

**Attendance**
Attendance is required at all lectures and lab sessions. Unapproved absences will result in lowering of course grade. Students are expected to play an active role in their professional education by participating in class discussions, asking questions, and working efficiently in lab and other group activities.

**Tutors**
Peer tutors for individuals or small groups can be arranged through the Student Affairs Office. The tutor is generally a classmate who has achieved high grades on the quizzes and exams. If interested, this should be arranged as early as possible in the quarter and not 1-2 weeks before the final exam!

**Professionalism**
Students are expected to abide by accepted standards of professional conduct and ethical behavior. The School of Optometry has an Honor Code that applies to all educational activities at UAB.

**Student Evaluation of Teaching (SET)**
It is important that students be given the opportunity to offer constructive feedback on content, delivery, organization, and other aspects of the teaching and learning environment for this course. The intent is to improve the course for those students who will follow. By responding to the questions in the SET evaluation, students are actively participating in the governance of the School of Optometry and in the continuous improvement of its professional curriculum. Because of the importance placed on these SET evaluations, online submission of the SETs is a requirement for successful completion of this course. As a reminder, the SET evaluations have been structured to keep the student evaluator completely anonymous to the coursemaster and other instructors, Office of Student Affairs, and faculty or administration of the School of Optometry. The timely submission of evaluations by the due date published in the
School of Optometry Academic Calendar is an important responsibility each professional student must take seriously.

**Students with Disabilities**
The Functional Standards for the School of Optometry are published in the handbook and were discussed at Orientation. Students with any questions or concerns should contact the Student Affairs Office or UAB Disability Support Services at 934-4205.

**Disclaimer: Module/Course Materials and Licensing Examinations**
This module/course is intended to prepare students in the knowledge, skills, and attributes needed of an entry-to-practice Doctor of Optometry. While this module/course should also help students prepare for licensing examinations such as those administered by the NBEO, nothing in this module/course, including the lectures and discussions, coursework, study guides, teaching notes, electronically posted information, or other materials, should be believed or understood to utilize actual confidential examination items from licensing examinations. For example, throughout this module/course, the instructor(s) may indicate points of emphasis for NBEO study and preparatory work. This instructional approach does not reflect knowledge of actual NBEO examination items, but represents a suggested area of focus based entirely upon the NBEO content outline/matrix. All materials in this module/course have been prepared in good faith to comply with the highest ethical standards of the profession.
<table>
<thead>
<tr>
<th>Week 1</th>
<th>Aug 19-21</th>
<th>No Lab on Aug 20</th>
<th>Introduction; Basic concepts</th>
<th>GOW* 1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>Aug 26-28</td>
<td>Lab 1- Aug 27 (Group presentations)</td>
<td>Basic concepts, cont.; prism</td>
<td>GOW 2, 3</td>
</tr>
<tr>
<td>Week 3</td>
<td>Sept 2-4</td>
<td>Lab 2- Sept 3 Quiz 1- Sept 4</td>
<td>Curved surfaces; thin lenses</td>
<td>GOW 4, 5</td>
</tr>
<tr>
<td>Week 4</td>
<td>Sept 19-11</td>
<td>Lab- review session <strong>Exam 1- Sept 11</strong></td>
<td>Thin lenses, cont.</td>
<td>GOW 5, 9</td>
</tr>
<tr>
<td>Week 5</td>
<td>Sept 16-18</td>
<td>Lab 3- Sept 17</td>
<td>Thin lenses, cont.; reflection, curved mirrors</td>
<td>GOW 5, 8, 9</td>
</tr>
<tr>
<td>Week 6</td>
<td>Sept 23-25</td>
<td>Lab 4- Sept 24 Quiz 2- Sept 25</td>
<td>Lens systems, thick lenses</td>
<td>GOW 7, 9</td>
</tr>
<tr>
<td>Week 7</td>
<td>Sept 30-Oct 2</td>
<td>Lab- review session <strong>Exam 2- Oct 2</strong></td>
<td>Lens systems, thick lenses, cont.; cylinders, spherocylinders</td>
<td>GOW 7, 9, GOW 6</td>
</tr>
<tr>
<td>Week 8</td>
<td>Oct 7-9</td>
<td>Lab 5- Oct 8 Quiz 3- Oct 9</td>
<td>Spherocylinders,</td>
<td>GOW 6</td>
</tr>
<tr>
<td>Week 9</td>
<td>Oct 14-16</td>
<td>Oct 14- No Class! (Fall Break) Lab – review session</td>
<td>Spherocylinders, other topics (TBD)</td>
<td>GOW 6</td>
</tr>
<tr>
<td>Week 10</td>
<td>Oct 21-23</td>
<td>Lab- review session <strong>Exam 3- Oct 23</strong></td>
<td>Value of ophthalmic optics/dispensing; lens fabrication; lensometry</td>
<td></td>
</tr>
<tr>
<td>Week 11</td>
<td>Oct 28-30</td>
<td>Lab 7- Oct 29, Room 205</td>
<td>Lensometer; base curves; center &amp; edge thickness</td>
<td>SOD* 13, omit 317-322</td>
</tr>
<tr>
<td>Week 12</td>
<td>Nov 4-6</td>
<td>Lab 8- Nov 5, Room 205</td>
<td>Lens materials; dress &amp; safety eyewear; basic vs. high impact standards</td>
<td>SOD 23</td>
</tr>
<tr>
<td>Week 13</td>
<td>Nov 11-13</td>
<td>Lab 9- Nov 12, Room 205</td>
<td>Prism; Prentice’s Rule; decenteration; center and edge thickness</td>
<td>SOD 15, 16, omit pp. 382-388</td>
</tr>
<tr>
<td>Week 14</td>
<td>Lab- review session</td>
<td>Frame markings, boxing system, prism thickness</td>
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<td></td>
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<tr>
<td>Nov 18-20</td>
<td><strong>Exam 4- Nov 20</strong></td>
<td><strong>SOD 2</strong></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 15</th>
<th>Nov 25- Nov 27</th>
<th>Nov 25- TBD? Nov 26- No Lab! Nov 27- Thanksgiving!</th>
</tr>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Week 16</th>
<th>Lab 10- Dec 4 (Review for Skill Assessment)</th>
<th>Image jump and vertical imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 2-4</td>
<td><strong>Skill Assessment-Dec 10</strong></td>
<td><strong>SOD 21: 498-513 omit 513-517</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 17</th>
<th>Skill Assessment-Dec 10</th>
<th>Spectacle magnification; aniseikonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 9-11 Last week!</td>
<td></td>
<td><strong>SOD 21: 491-498</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 18</th>
<th>Exam 5- Dec 18 10:00-12:00 N, Volker C</th>
<th></th>
</tr>
</thead>
</table>

* GOW- Geometrical Optics Workbook  
  SOD- System for Ophthalmic Dispensing
OPT 232 Ophthalmic Materials: Course Syllabus

2013-14 Summer Term

Instructor
Adam Gordon, OD, MPH

Office
Dr. Gordon
HPB 507
975-8545
E-mail: agordon@uab.edu

Lectures
Tuesdays 8:00-10:00 AM Room 203

Labs
Wednesdays 9:00-12:00 N Room 205 Groups C&D
Wednesdays 1:00-4:00 PM Room 205 Groups A&B

Credit
2 Semester Hours

Required Text
System For Ophthalmic Dispensing, 3rd edition
Clifford W. Brooks, O.D. and Irvin M. Borish, O.D., D.O.S.

Opticians Handbook- a free, online reference that is frequently updated. You’ll be asked to register with an email address and password. www.opticianshandbook.com

Exams
All exams given in this course are secure exams and not intended for release to the class. The content of a secure exam must not be acquired, received, recreated, shared, copied, or distributed without the instructor’s expressed permission. Doing so is a direct violation of the Honor Code which governs the actions and responsibilities of students enrolled in the UAB School of Optometry.

Grading
This course has both a lecture and laboratory component. The lecture portion is worth 60% of the final course grade and the lab is worth 40%. Both portions (lecture and lab) must be passed in order to receive a passing course grade.

Lecture portion (60%)
- Final exam
- Attendance and participation
Lab portion (40%)
- Skill Assessment
- Attendance and participation

Course Overview
This course is a continuation of Geometric and Clinical Optics from the Fall semester, and builds upon some of the basic concepts from the earlier course. After reviewing some basic concepts from Geometric and Clinical Optics course will primarily cover progressive addition lenses, absorptive lenses, and lens coatings. The laboratory sessions will emphasize clinical aspects of these lenses as well as an introduction to frame alignment/adjustment, lens tinting, and the computerized edging process. Some laboratory sessions will take place in Optical Services on the clinic floor.

Attendance
Required at all lectures and lab sessions. Unapproved absences will result in lowering of course grade. Absence due to illness may require a doctor’s excuse. The student is expected to play an active role in his or her professional education by participating in class discussions, asking questions, and working efficiently in lab activities.

Professionalism
Students are expected to abide by accepted standards of professional conduct and ethical behavior. The School of Optometry has an Honor Code that applies to all educational activities at UAB.

Student Evaluation of Teaching (SET)
It is important that students be given the opportunity to offer constructive feedback on content, delivery, organization, and other aspects of the teaching and learning environment for this course. The intent is to improve the course for those students who will follow. By responding to the questions in the SET evaluation, students are actively participating in the governance of the School of Optometry and in the continuous improvement of its professional curriculum. Because of the importance placed on these SET evaluations, online submission of the SETs is a requirement for successful completion of this course.

What do I expect from you?
- Attend all classes and labs
- Read the textbook assignments and attempt to solve appropriate problems in advance of exams. You are responsible for all assigned material, even if time constraints prevent coverage in class
- Actively participate in all class and lab activities. I enjoy student questions, and welcome the opportunity to clarify and explain concepts. If you're confused about something, it's likely that other students are also confused.
- Communicate with me if you are having any difficulty
- If you are experiencing difficulty, please contact me sufficiently prior to the next scheduled exam. This requires that you keep up with the assigned topics, and that you are familiar with chapter problems and the learning objectives. Please don’t wait until the week before an exam to ask for help!
Disclaimer: Module/Course Materials and Licensing Examinations
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OPT 232 OPHTHALMIC MATERIALS

Lecture Schedule:

<table>
<thead>
<tr>
<th>SESSION</th>
<th>DATE</th>
<th>TOPIC</th>
<th>Textbook</th>
</tr>
</thead>
</table>
| Week 1  | June 11 | (1) Value of optical dispensing services  
(2) Clinical review of ophthalmic optics and lensometry |          |
| Week 2  | June 18 | (1) Lens Design Overview  
(2) Progressive Addition Lenses | Ch. 18  
Ch. 20 |
| Week 3  | June 25 | Progressive Addition Lenses, cont. | Ch. 20   |
| Week 4  | July 2  | Absorptive Lenses and Lens Coatings | Ch. 22   |
| Week 5  | July 9  | Absorptive Lenses and Lens Coatings, cont. | Ch. 22   |
| Week 6  | July 16 | New Technology Lenses: Superfocus, Adlens, emPower, automated optical measurement systems, internet eyewear |        |
| Week 7  | July 23 | (1) Prescribing to match patient lifestyles- Dr. Kleinstein  
(2) Exam Review |          |
| Week 8  | July 30 | TBA |                                      |
# OPT 232  
**OPHTHALMIC MATERIALS**

## Laboratory Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>June 12</td>
<td>Review of lensometry and optical measurements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OM Lab</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Week 2| June 19     | Frame selection and fitting measurements for SV, BF, and PAL lenses | 9:00 AM- Group C  
10:15 AM- Group D  
1:00 PM- Group A  
2:15 PM- Group B |
|       | **Optical Services** |                                                      |                                               |
| Week 3| June 26     | Verification and measurement of PALs, Part 1                        | Ch. 20                                        |
|       | OM Lab      |                                                                      |                                               |
| Week 4| July 3      | Verification and measurement of PALs, Part 2                        | Ch. 20                                        |
| Week 5| July 10     | Optical Services Demonstration:  
(1) Layout & Edging  
(2) Frame alignment & adjustment  
(3) Removing & inserting lenses | 9:00 AM- Group C  
10:15 AM- Group D  
1:00 PM- Group A  
2:15 PM- Group B |
|       | **Optical Services** |                                                      |                                               |
| Week 6| July 17     | Optical Services Demonstration:  
Sunwear, polarized, photochromic lenses, lens tinting. **Bring your sunglasses!** | 9:00 AM- Group C  
10:15 AM- Group D  
1:00 PM- Group A  
2:15 PM- Group B |
|       | **Optical Services** |                                                      |                                               |
| Week 7| July 24     | **Skill Assessment**                                                 |                                               |
|       | OM Lab      |                                                                      |                                               |
| Week 8| July 31     | **No Lab**                                                           |                                               |
OPT212: Ocular Pharmacology

Use of technology description:

1. i>clickers (audience response system) is used in every lecture throughout the semester
2. students complete a pre-class quiz in Canvas before every lecture
3. in class, students will utilize electronic resources (e.g. epocrates, drugs@fda) to locate efficiently and accurately prescribing information
4. students are divided into small groups (4 per group) to make a video commercial about a drug that we will be studying; they use a wide range of technology to create these videos
5. students will learn how to use electronic prescribing through a dummy database of our electronic medical record system
6. students will have a proficiency quiz to demonstrate use of the electronic medication features of our electronic medical record system
OCULAR PHARMACOLOGY: OPT212
FALL 2014-2015

Meeting Days/Times | Mondays 1:00 – 3:00 p.m.
                   | Wednesdays 1:00 – 3:00 p.m.
Location           | HPB 301
Course Master      | Dr. Tammy Than

| Office Location   | 513       |
| Office Telephone  | 934-2941  |
| Email             | tthan@uab.edu |
| Office Hours      | By appointment |

COURSE DESCRIPTION
This course considers the classification and pharmacologic actions of currently employed ophthalmic drugs. Emphasis is placed on the clinical utilization of these drugs including indications, contraindications, dosages, and side effects for the diagnosis and management of ocular disorders. Special emphasis is placed on medications used routinely for the delivery of primary eye care.

LEARNING OBJECTIVES
At the conclusion of this course, students should understand:
- The basic science of ocular pharmacology
- Clinical administration of ocular drugs
- Appropriate utilization of ophthalmic diagnostic drugs
- Uses of medications to treat ocular disorders
- Adverse ocular effects of systemic drugs
- Contemporary aspects of nutritional pharmacology
- Legal aspects of drug utilization


INTERNET RESOURCES: Drugs@FDA; www.epocrates.com

COURSE GUIDELINES
1. Attendance is mandatory for all scheduled lectures.
2. Canvas (online course management system) will be utilized throughout the semester and it is expected that you are already skilled at using this program. Should you require help with this system, you should contact the Ask IT help desk at 996-5555 or email them at askit@uab.edu.
3. Images made available within Canvas are for your study and review only. They are not to be taken from any of the Powerpoint or PDF files and used without permission from the instructor. This is a copyright violation.

4. Electronic communication for this course will be through regular email (not through Canvas). It is expected that students will check their email on a daily basis while this course is in session.

5. The audience response system (ARS; clickers) will be utilized in class using i>clicker2 remotes. You must register your clicker for this class by logging into Canvas, selecting this course and then clicking on i>clicker. From the i>clicker menu, select i>clicker Registration. Enter your remote ID and click on REGISTER. Each student is expected to bring his/her clicker to every lecture. It is expected that students will use only the clickers assigned to them. Using another student’s clicker is considered an honor code violation. If you have lost or broken your i>clicker remote, you will have to purchase another one. Please email me with your new Remote ID so that I can manually register your new remote.

6. Academic honesty is expected of each student. It is expected that each student has read and agrees to abide by the school’s Code of Ethics (a copy may be found at http://portal.opt.uab.edu/students). Cheating will not be tolerated and will result in an automatic course failure. The incident will also be reported to the appropriate administrative personnel for consideration and the student may be dismissed from the entire program.

7. Personnel calculators may not be utilized during examinations. Standard calculators will be provided for the mid-term and final examination.

8. Cell phones are to be turned OFF (and kept out of sight) during lectures and examinations. Should there be an extenuating circumstance that requires access to your phone, it should be discussed in advance with the instructor.

9. Laptops and/or electronic tablets may be utilized in class for note taking purposes only. The use of a laptop, phone or any other electronic device should not be utilized in class for accessing the internet, communicating via texting, etc. Students caught doing so will be assessed a one-letter grade penalty at minimum.

10. The only exception to the electronics policies (listed in 8 and 9) will be for the two in-class assignments when resources may be utilized including computers, smart phones, etc.

11. Students must be on time for examinations and QUESTs. Any student arriving after a classmate has completed the examination (and has left the lecture hall) will not be permitted to take the exam/QUEST and will be given a zero.

12. It is important that students be given the opportunity to offer constructive feedback on content, delivery, organization, and other aspects of the teaching and learning environment for this course. The intent is to improve the course for those students who will follow. By responding to the
questions in the SET evaluation, students are actively participating in the
governance of the School of Optometry and in the continuous
improvement of its professional curriculum. The timely submission of
evaluations by the due date is an important responsibility of each student.

13. Anyone receiving a failing grade in Ocular Pharmacology will be required
to repeat the course during its next regularly scheduled offering.

COURSE ASSIGNMENTS

1. Reading assignments will be given for most lectures and will come from
the course textbook. Reading assignments from the required text will be
provided at the beginning of the semester. Additional reading
assignments from journals or websites may be made and will be
announced in class or via email.

2. There will be five take-home assignments to be completed throughout the
semester. It is expected that these assignments will be completed
individually unless directions are given permitting group work.
Assignments should be delivered to Dr. Than’s mailbox on the first floor.
Points will be deducted from any work turned in late.

3. There will be two in-class assignments that will evaluate your ability to
locate information about therapeutic agents, dosing, side effects, etc.

4. There will be two small-group projects throughout the term. More
information about these will be provided in a separate document.

COURSE TESTING

1. There will be an online multiple-choice quiz prior to each lecture (see
attached schedule). The material for the quizzes will come from the
reading assignment for that lecture and from the material covered in the
previous lecture. There will be a total of 26 quizzes. To successfully
complete this course with a passing grade, you must take a minimum of
23 quizzes. If you elect to take more than 23 quizzes, the top 23 scores will
count towards your final course grade. Quizzes will be available in
Canvas 48 hours prior to Monday classes (i.e. at 1:00 pm on Saturdays)
and 44 hours prior to Wednesday classes (i.e. at 5:00 pm on Mondays).
The quiz must be taken by 12:00 Noon on the day of the lecture. The first
attempt will be scored and you will have 5 minutes to complete each 5-
question quiz. Quizzes are to be completed on your own. These quizzes
are “secured” and are not to be distributed, received, shared, or
duplicated.

2. A quiz on the contents of this course syllabus and class schedule must be
taken and a score of 100% achieved before you will have access to any
of the Canvas quizzes. This quiz will be available until 8/22/2014 at 5:00 PM. This quiz will NOT count towards your minimum quota of 23.

3. There will be 4 QUESTS throughout the semester that will cover all material presented since the previous QUEST.

4. There will be one two-hour midterm examination given during the 8th week of the term. The midterm will cover all material presented in the course during the first eight weeks.

5. Quests and Exams are secured and are not to be distributed, received, shared, or duplicated.

6. During the review of any quiz, quest or examination whether individually with the instructor or during a group session, no electronics (including cell phones) are to be utilized. Cell phones should be out of sight during these reviews. The presence of any electronics will be considered an attempt to copy exam questions and will be treated as an honor code violation which will result in course failure.

7. The final examination will be cumulative, testing on material presented during the entire semester.

8. The QUESTS, the midterm and the final examination may include images, true/false, matching, multiple choice, or short answer.

STUDENTS WITH DISABILITIES

The UAB Disability Support Services (DSS) exists for the purpose of ensuring that all UAB programs and services are accessible to all qualified students, including students with disabilities. Disability support services are located at 1701 9th Ave (http://main.uab.edu/Sites/students/services/disability-support). Other ways to contact them are: 934-4205 (voice), 934-4248 (TDD), or dss@uab.edu. Any student wishing to receive accommodations must schedule an appointment with DSS so that the disability can be documented and appropriate accommodations determined. If you are already registered with DSS, please make an appointment to meet with me as soon as possible to discuss accommodations that may be necessary.

DISCLAIMER STATEMENT: COURSE MATERIALS AND LICENSING EXAMINATIONS
(Modified Disclaimer Statement issued by ASCO March 2013)

This course is intended to prepare students in the knowledge, skills, and attributes needed of an entry-to-practice Doctor of Optometry. While this course should also help students prepare for licensing examinations such as those administered by the NBEO, nothing in this course, including the lectures and discussions, coursework, study guides, teaching notes, electronically posted information, or other materials, should be believed or understood to utilize actual confidential examination items from licensing examinations. For example, throughout this course, the instructor may indicate points of emphasis for NBEO study and
preparatory work. This instructional approach does not reflect knowledge of actual NBEO examination items, but represents a suggested area of focus based entirely upon the NBEO content outline/matrix. All materials in this course have been prepared in good faith to comply with the highest ethical standards of the profession.

**COURSE GRADE**

- Daily Quizzes \(4\%\)
- Assignments \(7\%\) (each worth \(1\%\))
- E-Rx Proficiency Quiz \(2\%\)
- Group Project #1 \(1\%\)
- Group Project #2 \(1\%\)
- QUESTS \(20\%\) (each worth \(5\%\))
- Midterm Exam \(30\%\)
- Final Exam \(35\%\)
- Class Participation (ARS) Up to \(1\%\) bonus

**GRADING SCALE**

\[
\begin{array}{ll}
A & \geq 90 \\
B & \geq 80 \& < 90 \\
C & \geq 70 \& < 80 \\
F & < 70 \\
\end{array}
\]

The syllabus may be modified in the future. Should this occur students enrolled in the course will be notified and the version posted in Canvas will be updated.

The attached course schedule is tentative and subject to change. Should this occur students enrolled in the course will be notified and the version posted in Blackboard will be updated.

Last Updated 08.08.2014
GROUP PROJECT #1: WHAT’S GOOD ABOUT IT?

1. Groups should select drug and presentation date – sign up list will be posted Tuesday, August 19th at 7:30 AM on the door of Room 301. First come – first choice.

2. Learn all you can about your assigned topical ophthalmic drug including indications, benefits over other medications, side effects, contraindications, etc.

3. Prepare a brief commercial (no more than 90 seconds maximum) to deliver your message; the entire group should participate; it can be humorous provided the message is still delivered and that it is in good taste.

4. Video tape the commercial and get it to Dr. Than by 5:00 pm the day before (it will then be viewed during class with the group on hand to answer any questions). Should a file be too large to email it can be given to Dr. Than on a flash drive or sent via Drop Box or some other electronic file delivery service.

5. Score will be determined based on accuracy of information, comprehensiveness of information, effectiveness of message and creativity.

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Drug</th>
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<tbody>
<tr>
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<td>Monday</td>
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<tr>
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<tr>
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</tr>
</tbody>
</table>
OPT321: Neuro-Optometry

Use of technology description:

Three dimensional motion and rotational models developed in conjunction with the UAB Department of Engineering (Unity 3D) are used to demonstrate the human visual field as a hill of vision. These models allow comparison of two dimensional visual fields as a three dimensional plot. 3D Motion models allow students to see changes in individual visual field points over time.
NEURO-OPTOMETRY CLASS SCHEDULE
Spring 2013
Mark W. Swanson, OD, MSPH  Course master
Lectures: Monday

Jan 6  8:30-10:30  Neuroanatomy/Cerebrovascular Disease/Headaches

Jan 13  9:00-10:30  Advanced Neurological Testing

Jan 20  8:30-10:30  No Class MLK Day

Jan 27  8:00-10:30  Evaluation of pupillary abnormalities

Feb 3  8:00-10:30  Lids & Nystagmus

Feb 10  8:00-10:30  Supranuclear palsy & Ophthalmoplegia

Feb 17  8:00-10:30  Ophthalmoplegia II

Feb 24  8:30-10:30  PEDS

Mar 3  8:00-10:30  Proptosis/TBI

Mar 10  8:00-12:00  MIDTERM

Mar 17  No CLASS NBEO BREAK

Mar 24  Spring Break

March 31  8:30-10:30  Optic Nerve I

April 7  8:30-10:30  Optic Nerve II

April 14  8:30-10:30  Optic Nerve/Visual Fields

April 21  8:30-10:30  Visual Visual Field I

April 28  8:30-10:30  Visual Visual Field II

The week of May 5 to May 9, finals week, I will be at ARVO in Orlando.

FINAL SCHEDULING : TBA
This class is structured differently than most classes you take. You WILL participate actively in the classroom through the Socratic method. **It is therefore important that you read your handouts before class and be in class.** All class materials will be posted on Blackboard. You will need the handouts with you for class. I will try to have them in Blackboard at least one week ahead of lecture. The objective of this class is to learn to think like a doctor through problem-based learning. **The emphasis is not on memorization.**

**Laboratory data** - The handout material posted on Blackboard the first day of class with lab values will serve as the reference standards for the purposes of this class. You will need this handout for both lectures and testing.

**Headaches** - All headache and like disorders will be expected to be diagnosed based on the classification scheme of the International Classification of Headache Disorders-2 which is included in the Blackboard material.

**Imaging** - Imaging will be expected to be done based on the American College of Radiology Appropriateness Guidelines.

**Class Attendance** - Class attendance is crucial and mandatory. A zero tolerance policy for class unexcused absences will be enforced. Unexcused absences will result in a reduction of 5% of the final aggregate grade for each class missed.

**Testing** - This course is comprehensive; any material from any class since the beginning of optometry school may be tested. You are strongly encouraged to review all relevant courses. The grading will be broken down as below.

- **Midterm** 40%
- **Final** 60%

**Grading**

- A 90-100
- B <90-80
- C <80-70
- F <70

“All didactic and clinical courses with an F grade must be repeated in order for a student to progress in the professional program or receive the O.D. degree. A course can be repeated by either: (1) completing a comprehensive plan designed by the instructor, or (2) enrolling in the course when it is next offered. The course instructor will provide a written summary of the student’s performance to the Academic Review Committee with a recommendation as to how the course should be repeated. Factors used to determine the appropriate course of action for the management of an F grade include, but are not limited to, the following: overall course
performance; current and past academic performance; attendance; demonstrated efforts toward self-help; and documented special circumstances that may have contributed to poor performance, such as personal or family illness."

**Disability**
If you are registered with Disability Support Services, please make an appointment with me as soon as possible to discuss accommodations that may be necessary. If you have a disability but have not contacted Disability Support Services, please call 934-4205 or visit DSS at 516 Hill University Center.

**Office Hours** I have a lot of commitments on campus outside the School of Optometry and can be difficult to catch. My office is 505. The best way to catch me is to page me through the UAB paging service 4-3411 or you may leave a message on my voice mail or email. I am in the Disease Clinic on Wednesdays.