

## Ophthalmic Design & Dispensing, ODD\*

### **ODD\*101, Introduction to Ophthalmic Dispensing (4 credits)**

Designed to introduce the student to the field of Ophthalmic Dispensing, this course will provide a general overview of optical theory and is intended to provide the student with a basis for more advanced study. The course will include segments of basic lens theory, normal and abnormal vision, the history of lenses and eyeglasses, an introduction to prism, and a determination of lens power at any point of a lens. The laboratory component will include introduction to the lensometer, marking and blocking devices, mechanical edging equipment and hand edgers, as well as an overview of the fabrication process. Lecture: 3 hours per week. Laboratory: 3 hours per week.

### **ODD\*102, Ophthalmic Dispensing I (4 credits)**

This course will deal with the relationship between spectacles and the patient's visual needs. Topics shall include frame types and materials and the proper fitting and adjusting of spectacles, determination of lens thickness and weight, and vertical prism imbalance at the reading level. The laboratory segment shall include work in neutralization, fabrication of multifocal spectacles, pattern making, tinting, and lab equipment operation and maintenance. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisite: ODD\*101 with a grade of "C" or better.*

### **ODD\*103, Ophthalmic Dispensing II (3 credits)**

A continuation of Ophthalmic Dispensing I, discussion will include comprehensive spectacle verification, A.N.S.I. standards, lenses and frames for high powered prescriptions, managing presbyopia, occupational and lifestyle analysis and lens application, specialized absorptive lenses and sports and safety eyewear. The course will also include a review for the A.B.O. exam. *Prerequisite: ODD\*102 with a grade of "C" or better.* This is an "L" course.

### **ODD\*104, Ophthalmic Dispensing III (3 credits)**

A continuation of Ophthalmic Dispensing II, to include segments on Low Vision, prescription analysis, critical thinking and problem solving skills, marketing fashion eyewear, dispensing progressive addition lenses, record keeping, professional ethics and liability. Discussion of and preparation for the State Practical Exam will be included. *Prerequisite: ODD\*103 with a grade of "C" or better.*

**ODD\*109, Optical Business Management (3 credits)**

This course is designed to prepare the Ophthalmic Design and Dispensing student for the challenges of managing or operating an Optical business. Topics will include business organization, financial management, purchase, sale or merger of a business, marketing, advertising, accounting procedures, second party billing, inventory control, management skills, and patient/ client relations. *Prerequisite: ODD\*102 with a grade of "C" or better.*

**ODD\*110, Ophthalmic Materials I (4 credits)**

This course is designed to introduce the most commonly used ophthalmic devices and their use. It will explore single vision, bifocal, trifocal and progressive lenses commonly used in ophthalmic practice. Special emphasis will be placed on the physical properties of lens materials including index of refraction, absorptive ability, lens coatings and special applications of lens materials. It will include the discussion of the lens surfacing process and the surfacing laboratory. Frame materials, design, selection, and dispensing will be discussed. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisite: ODD\*101 with a grade of "C" or better.*

**ODD\*111, Ophthalmic Materials II (4 credits)**

A continuation of Ophthalmic Materials I with special emphasis on unique optical devices and their function. This course will increase hands on experience in optical finishing skills, including edging, hand edging, drilling, grooving and inserting lenses. Basic frame adjustment and bench alignment shall also be included. Lecture: 3 hours per week. Laboratory: 3 hours per week. Included in this course will be a mandatory optical clinic rotation. *Prerequisite: ODD\*110 with a grade of "C" or better.*

**ODD\*112, Ophthalmic Materials III (4 credits)**

A continuation of Ophthalmic Materials II, to include rimless, semi-rimless, specialty eyewear and more advanced spectacle fabrication. It will include the use of more advanced spectacle fabrication machinery and instruments. Fabrication of trifocals, and progressive addition lenses will be included. Additional didactic and practical application of frame adjusting techniques will be presented. Lecture: 3 hours per week. Laboratory: 3 hours per week. Included in this course will be a mandatory Optical Clinic rotation. *Prerequisite: ODD\*111 with a grade of "C" or better.*

**ODD\*113, Clinical Refractometry (4 credits)**

This course is designed to provide the student with a thorough understanding of the basic

principles and techniques of objective and subjective refractometry. Material will include basic optical concepts, anatomy and physiology of the eye as a visual system, taking a comprehensive medical and visual history, retinoscopy, color vision testing, evaluating stereopsis, automated refractometry, and vision screening techniques

**ODD\*120, Contact Lenses I (3 credits)**

An introduction to the fitting of contact lenses; outlining the history of contact lenses and the development of new materials. Advantages and disadvantages of these materials will be outlined, as well as indications and contraindications to contact lens wear. Emphasis is placed on rigid lens fitting philosophies and acquisition of basic skills with related instrumentation. *Prerequisite: BIO\*118.*

**ODD\*121, Contact Lenses II (4 credits)**

Continuation of Contact Lenses 1, with increased attention to lens selection and design. Fitting philosophies of hydrophilic and oxygen permeable lenses are put into practice, and follow-up care is stressed. Diagnostic as well as insertion and removal skills are increased. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisite: ODD\*120 with a grade of "C" or better.*

**ODD\*122, Contact Lenses III (4 credits)**

Continuation of Contact Lenses II, dealing mainly with special fitting problems and special lens designs. Practice management techniques are included, as well as continued use of all needed instrumentation. Lecture: 3 hours per week. Laboratory: 3 hours per week. *Prerequisite: ODD\*121 with a grade of "C" or better.*

**ODD\*130, Low Vision (1 Credit)**

This course is designed to familiarize the student with a wide range of physiological disorders and diseases that lead to significant vision loss, and the optical and non-optical devices used to provide correction. Emphasis will be placed on the use of telescopic, magnifiers, illuminating devices, and a list of resources for the partially sighted patient.

**ODD\*299, Opticianry Practicum (2 Credits)**

Students are placed in area optical firms licensed by the State of Connecticut, Department of Health Services, under the direct supervision of a licensed optician. This summer practicum is designed to provide more diverse practical experience to the student/apprentice optician. Supervision of this program will include job site visits by the college faculty member and both employer and faculty evaluation of students' performance. Students will be required to complete an on-campus orientation to the Optical and Contact Lens Clinics, and will be required to keep a log of their daily activities in the off-campus work place.