

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: OPT 152

Credits: 3

Course Title: Optical Laboratory Clinical 1

Course Description: Provides the clinical component of OPT 150. Provides students the opportunity to learn clinical skills in fundamental optical laboratory tasks at the entry level under the direction and supervision of a preceptor. Emphasizes accuracy and attaining skills that meet acceptable professional standards. Course Co-requisite: OPT 152. Laboratory 6 hours per week.

General Course Purpose: This course is designed to provide students with the practical hands-on applications of an optical laboratory to enable them to function as effective opticians.

Course Objectives:

Upon completing the course, the student will be able to:

- a. Identify basic lens materials and their characteristics.
- b. Demonstrate proper lensometer techniques for neutralization and verification.
- c. Identify frame materials and characteristics.
- d. Calculate decentration and lay out single vision lenses for finishing.
- e. Edge and insert lenses into optical frames.
- f. Bench align and final inspection of eyewear using ANSI standards.
- g. Demonstrate a basic understanding of finishing equipment maintenance, proper disposal of waste, and safety procedures for laboratory work.

Major Topics to Be Included:

- a. Introduction to lab, lens materials, and lens clock
- b. Lensometry and spherical lenses
- c. Sphero-cylinder lenses, Rx forms and thickness calipers
- d. Introduction to frame measurements, decentration, and edging
- e. Edging single vision lenses to plastic frames
- f. Edging single vision lenses to metal frames
- g. Pattern making
- h. Final inspection and standard alignment
- i. Lab equipment maintenance and glass lens tempering

Effective Date of Course Content Summary: August 1, 2013