J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: OPT 152 **Credits:** 3

Course Title: Optical Laboratory Clinical I

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. Co-requisite: OPT 150. 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 Prerequisites and Co-requisites:
Co-requisite: OPT 150

Student Learning Outcomes:
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; and
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

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