



Course Description

OPT 2420L | Eyewear Fabrication I - Laboratory | 1 credit

Theory of ophthalmic surfacing procedures. Students acquire knowledge to arrange single vision lenses; use lensometers and lens clock; operate equipment for single vision lens layout; select or fabricate frame patterns; and utilize several systems for edging lenses for ophthalmic frames.

Course Competencies

Competency 1:

Competency 1

The student will neutralize eyewear according to A.N.S.I. tolerances by:

1. Using the lensometer to neutralize sphere power.
2. Using the lensometer and neutralize cylinder power.
3. Identifying cylinder axis using the lensometer.
4. Identifying near add power using the lensometer.
5. Identifying prism power and direction using the lensometer.
6. Identifying base curve using a lens clock.
7. Measuring edge thickness and center thickness using calipers.
8. Identifying tinted lens.

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data.
- Formulate strategies to locate, evaluate, and apply information.
- Demonstrate an appreciation for aesthetics and creative activities.

Competency 2

The student will select single vision stock lenses by:

1. Pulling proper lenses from lens stock.
2. Filling out an eyewear order form.

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data.
- Formulate strategies to locate, evaluate, and apply information.
- Demonstrate an appreciation for aesthetics and creative activities.

Competency 3

The student will make a pattern by hand and, be exposed to an automatic pattern maker by:

1. Laying out a pattern on a pattern blank and cutting that pattern by hand.
2. Being familiarized with an automatic pattern maker.

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data.
- Formulate strategies to locate, evaluate, and apply information.

- Demonstrate an appreciation for aesthetics and creative activities.