

Course Description

OPT 2421C | Eyewear Fabrication II Lab | 4.00 credits

This course is a continuation of OPT2420L and the laboratory for OPT2421. It provides knowledge of advanced techniques in measurements, fabrication and verification of unifocal and multifocal lenses. Students shall gain the knowledge necessary for fabricating finished eyewear from written specifications ensuring that ANSI and FDA standards are exceeded. They will evaluate and analyze eyewear for accuracy and quality, advanced techniques in operation of automatic lens analyzer and lens edger's, and maintenance of equipment. Students will fabricate eyewear for patients of the Vision Care Clinic including special lenses for various occupations and avocations. Eyewear will be correctly aligned for subsequent dispensing to the patient.

Course Competencies

Competency 1: The student will neutralize and appraise eyewear according to A.N.S.I. tolerances dated Z 80-1-2015 in a specified time by:

1. Using the lensometer to neutralize sphere power
2. Using the lensometer to 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. Tinting Lenses

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data
- Demonstrate an appreciation for aesthetics and creative activities

Competency 2: The student will select single vision and multifocal stock lenses by:

1. Pulling proper lenses from lens stock

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data
- Demonstrate an appreciation for aesthetics and creative activities

Competency 3: The student will determine minimum blank size required for single vision and multifocal lenses by:

1. Applying formula required to calculate MBS

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data
- Demonstrate an appreciation for aesthetics and creative activities