

OPT 1150 OPHTHALMIC LENSES

Course Description

Characteristics of unifocal and multifocal lens reference points as a basis for proper lens selection to meet visual needs of the patients. Emphasis on accurate positioning of the optical centers and selection of multifocal addition design. ANSI and FDA standards for ophthalmic lenses and frames; prescription ordering; verification procedures; absorptive lenses; and invisible and progressive power multifocals are presented.

| Course Competency | Learning Outcomes |
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| <p>Competency 1: The student will use knowledge from geometrical and physical optics to the area of practical optics in the design of the patient's ophthalmic prescription by:</p> | <p>Numbers / Data Critical thinking</p> |
| <ol style="list-style-type: none"> 1. learning to explain the various lens designs. 2. able to explain the frame size. 3. explaining the optimum lens shape. | |
| <p>Competency 2: The student will explain the procedures necessary to properly position the optical center and the multifocal components of an ophthalmic prescription before the patient's eyes in the selected frame style by:</p> | <p>Numbers / Data Critical thinking</p> |
| <ol style="list-style-type: none"> 1. explaining the definition and procedures to measure the patient's pupillary distance. 2. explaining the optical center placement and the correlation with the major reference point. 3. explaining how to measure a rogressive lens design fitting height and multifocal segment fitting heights. | |
| <p>Competency 3: The student will appraise the limitations in lens size and frame style imposed by the nature of the prescription power and the patient's pupillary distance separation by:</p> | <p>Numbers / Data Critical thinking</p> |

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| <ol style="list-style-type: none"> 1. understanding the plus lenses limiting factors. 2. understanding the minus lens limiting factors. | |
| <p>Competency 4: The student will solve problems by computing and, when necessary, neutralizing unwanted prismatic effect at the lens reading level by:</p> | <p>Numbers / Data Critical thinking</p> |
| <ol style="list-style-type: none"> 1. calculating slab off. 2. understanding when slab off is necessary. | |

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