

Course Title: Types of Lenses, Transposing and Converting a Multifocal Rx to Task Specific Rx

Instructor: Diane F. Drake, LDO, ABOM, NCLEM, FNAO

Course Length: One Hour – ABO

Intended audience: All opticians, technicians, entry level apprentices

Subject Category: Spectacle – Technical – Level II

Course Description: While this course is designed to be a basic level course, it will present information in a way that the more experienced participant will find beneficial as well. This course will introduce types of lenses and will also discuss how to transpose a prescription as well as how to convert a bifocal prescription to a task specific prescription. Included will be how to place the prescription on an optical cross in order to visualize the finished product.

Learning objectives/outcomes

At the completion of this course, the participant will be able to:

- Recognize various lens types and categories
- Identify the powers on the surfaces of lenses
- Analyze and interpret a prescription
- Transpose a prescription
- Have a better understanding of the optical lens cross
- Be able to convert a bifocal prescription to a task specific prescription
- Visualize the final product

Types of Lenses, Transposing and Converting a Multifocal Rxs to Task Specific Rxs Outline

- Introduction
 - Identifying lenses – 10 minutes
 - Meridians of a lens – 10 minutes
 - Lensometer readings – 5 minutes
 - Transposition – the definition – 5 minutes
 - Terms – 5 minutes
 - Transposition – How to – 5 minutes
 - Types of lenses – 5 minutes
 - Lens cross – 10 minutes
 - Questions and answers – 5 minutes
- Categories of Lenses
 - Sphere
 - *Plus*
 - *Minus*
 - Compound
 - *Sphere & Cylinder*

- *Sphero-cylinder*
- Spherical Lenses
 - Single dioptric value
 - Same curvature in all meridians
 - One curvature on front
 - One curvature on back
- Spherical Lenses
 - Plus
 - Minus
- Meridians of a lens
- Lensometer
 - Lensometer Readings
 - Reticule
 - Target
 - Mires
 - Spherical Lenses
 - Sphere Power
 - Cylinder
 - Compound Lenses
 - Cylinder – Compound Lenses
 - Example
 - Cylindrical Lenses
 - Cylinder
 - Plus cylinder
 - Minus cylinder
- Transposition
 - “The Definition”
- Terms
 - OD – Latin for Ocular Dexter
 - OS – Latin for Ocular Sinister
 - OU – Latin for Oculus Uterque or Oculi Uterque
 - PD – Pupillary Distance
- Diopters
- Analyzing and Interpreting a Prescription
 - What is the prescription formula?
 - What is the intended use of the eyewear
 - Ask enough questions to ensure that you understand the intended use
 - The Prescription
 - Optical Cross
- Types of Refractive Errors

- Types of astigmatism
- Transposition
 - The number line
 - Designation of Axis in Rx
 - Flat Transposition
 - Step 1
 - Step 2
 - Step 3
 - It's that simple
- Types of Lenses
 - Single Vision
 - Bifocal
 - Trifocal
 - Progressive Addition Lenses
 - Specialty
 - *Occupational*
 - *Sports*
 - *Any type of task specific lenses*
- The Prescription
- Total Power at the Reading Level
- Reading Power
- Trifocal/Intermediate Power
- Distant and Intermediate Power
- Find out the intended use of the eyewear
- Analyzing & Interpreting The Prescription
 - identify any potential visual or cosmetic concerns
- Power on Lens Cross
- Questions & Answers – 5 minutes