



COURSE CATALOG

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JOINT ABO AND NCLE

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ABO OPHTHALMIC

Math For Common Optical Concepts: Part 1 - level II _____

Course Description – 1 hour (Joint ABO / NCLE)

The daily lives of Eye Care Professionals require the use of many optical concepts. This two-part course explores a selection of the most common, from a mathematical perspective. Part 1 will address basic to intermediate topics and part 2 will explore more advanced. Actual examples of the calculations involved will be provided for each concept discussed. The topics covered in part 1 include basic metric conversion, basic algebra and how to rearrange formulas, the order of operations and its purpose, use of the focal length formula, Vogel's rule, the effective power formula for changes in vertex distance, minimum blank size calculation, and use of the surface power formula for contact lens base curve determination. It goes without saying, a math course on optical concepts would be incomplete without including some prism-related demonstrations.



Math For Common Optical Concepts: Part 2 - level II _____

Course Description – 1 hour (Joint ABO / NCLE)



The conclusion to this 2-part course expands upon the basic topics discussed in part 1 to explore more advanced common optical concepts, from a mathematical perspective. The topics covered in part 2 include examples involving lens magnification, isekonic lens design, sagittal depth, and lens thickness. In addition, calculations associated with GP toric lens verification will also be presented. Finally, the steps involved in calculating vertical imbalance at both near AND distance, in a progressive addition lens, will be demonstrated.

Aniseikonia: The Problem, The Solutions – level III

Course Description - 2 hours (Joint ABO / NCLE)

This course will provide an in-depth discussion on aniseikonia and its various types.

The Problem: the ways in which aniseikonia can be problematic and challenging, for both the patient and the eye care professional, will be explored. Some of the symptoms often experienced by those for whom aniseikonia becomes clinically significant will also be reviewed. Spectacle magnification and its influential factors will be examined, together with a step-by-step guide for handling the related calculations. Axial vs. refractive ametropias will be discussed, and ways to estimate the source of the ametropia will also be presented. Anisometropia will be defined, together with its significance. Knapp's law will be explored, together with how it compares to clinical findings regarding the best eyewear solution for the treatment of aniseikonia.

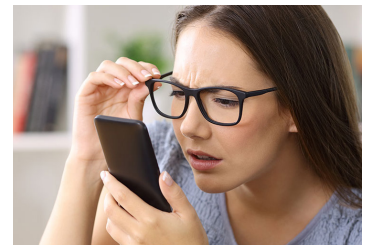


The Solutions: determining the most effective optical corrective device (ophthalmic lenses or contact lenses), when treating the aniseikonia patient, will be presented, based on the source of the ametropia. Binocular vision and retinal correspondence will be discussed, in addition to stereoscopic vision, and the significance of the horopter and Panum's area of fusion. Iseikonic lens design will be explored, together with examples of parameter modifications. This course will also answer why contact lenses continue to be the most effective optical device for treating ALL aniseikonia patients.

These Don't Work! - level II

Course Description - 1 hour

Let's set the scene . . . you're having a pleasant start to your Monday morning; your commute was uneventful during which you listened to your favorite playlist and enjoyed a nice morning beverage. 8 o'clock comes around and the first patient walks in, practically throws their glasses at the receptionist and screams, "These don't work!" Of course, you heard them, as did everyone within a five-mile radius! So, you immediately drop what you're doing to go rescue the receptionist and take care of the patient.



Of course, you've all been there and this course will cover how to "translate" what the patient is trying to articulate, to determine what the potential cause(s) of their vision difficulties may be. The S.O.A.P. protocol will be discussed, in depth, as it pertains to problem solving such complaints. Also, causes of common complaints will be discussed, together with how best to resolve them. Several patient examples will also be presented. A knowledgeable optician, skilled at problem solving patient eyewear concerns, can often prevent the need for additional chair time with the doctor, resulting in increased profitability for the practice and enhanced patient satisfaction.

Balancing Prism - level III

Course Description – 2 hours

This program will begin with a basic introduction to prism and its connection to ophthalmic lens construction. The distinction between prescribed prism and induced prism (good vs. bad), will be presented, leading to the introduction of Prentice's rule. Next, the rules for compounding and canceling prism will be discussed, together with a review of ANSI standards for induced prism. Common causes of induced prism will be explored, in depth: inaccurate measurements, failure to provide measurements, inaccurate fabrication, failure to pre-fit frames, poor final fit, non-compensated wrap eyewear, and multi-focal lenses.

Common effects of induced prism will also be presented, prior to moving onto the main topic of discussion – prismatic imbalance in ophthalmic lenses. Anisometropia and antimetropia will be explored leading to a discussion of the primary cause and effects of vertical imbalance. A step-by-step guide for calculating vertical imbalance at the near point will then be provided, including determining meridional power. A patient example will also be presented.

Next, methods to compensate for vertical imbalance will be discussed (slab off/reverse slab, separate pairs, and dissimilar segments), with detailed explanations of each, and their use; in particular, slab off. The potential for vertical imbalance being problematic at distance as well as near with a progressive addition lens will also be explored. The anatomy of a progressive will be reviewed together with a discussion of the red flags to watch out for to help the eye care professional identify potentially problematic prescriptions and take proactive measures to prevent patient issues and provide best vision. Again, a step-by-step patient example will be presented for calculating vertical imbalance at both distance and near in a progressive. Then, a recommended technique to effectively manage and order prescriptions that result in clinically significant vertical imbalance at both extremes will be provided, introducing the concept of yoked prism, to better ensure a great patient experience.



Mastering Pediatric Dispensing – level II

Course Description - 1 hour

According to the American Optometric Association (AOA), 80% of a child's learning is through vision. This explains why children entering grade school with undiagnosed refractive errors can quickly fall behind in their academic growth. To avoid this potential obstacle, the AOA recommends children receive at least three eye examinations, prior to entering first grade. Children in higher risk categories should be seen more frequently.

This course will present my “tried and tested” approach to Dispensing to Children. While there are many theories and approaches out there, this works for me. The program will include a discussion of the following:

1. How to create a “kid friendly” environment
2. How to put the patient at ease
3. Recommended frame options for children
4. Recommended lens options for children
5. How to take measurements on children
6. Setting the patient up for success at final dispense.



Sunglasses - They're HOT! - level II

Course Description - 1 hour

This course will discuss the importance of promoting the use of premium quality sunglasses for patients of all ages. The sun's harmful effects on the eyes will be reviewed, together with the role frame selection plays in providing optimal eye protection from both UV rays and high luminance levels. In addition, the variety of sunglass options available will be explored, along with the pros and cons for each.



Sports and Eyewear Safety for Your Pediatric Patients – level II _____

Course Description - 1 hour

Studies conducted by the Prevent Blindness organization report over 35,000 sports related eye injuries in the United States, every year. A significant percentage of children participate in sports and, sadly, suffer the majority of related eye injuries. According to the National Eye Institute, sports related eye injuries are the number one cause of blindness in children in the United States. Despite such alarming statistics, eye safety is rarely even mentioned in health and awareness campaigns sponsored by sports leagues. The main focus of such campaigns is physical injuries to the body from related sports activities. In addition, protective eyewear is rarely required by youth leagues. This course will discuss sports related eye injuries and the eye care professional's responsibility to educate patients / parents about the preventative measures available.



It will include a discussion of the following:

1. Review sports related eye injuries and statistics
2. Discuss ASTM standards for sport protective eyewear
3. Discuss the importance of educating the patient / parent about the differences between dress and sport protective eyewear
4. Lens recommendations for sports protective eyewear
5. Discuss ways to present sport protective eyewear
6. The optician's responsibility and duty to discuss eye safety with every patient.

MR™ Material – level II _____

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.

MR Material is manufactured in Japan by Mitsui Chemicals, Inc.. Mitsui Chemicals is the world's major producer of the chemistry used to make 1.60, 1.67, and 1.74 high index lenses for the lens casters labs regularly use. This program will present:



1. Why lens suppliers choose the high index materials they do
2. How a combination of material characteristics create a more merchandisable finished lens on which lens suppliers can rely
3. How to effectively communicate with patients about the underlying DNA of lenses and their material properties.

The manufacturing process of MR lenses will be reviewed. In addition, how lens materials are selected by the ECP, the consumer, and labs will be discussed. The benefits of "Premium" high index materials will be presented, together with exploring whether, or not, all high index materials are created equal.

Is All High Index Created Equal? - level II

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.

Participants will acquire an understanding of what differentiates premium high index from alternatives, in order to confidently recommend the best for their patients. This course introduces Mitsui Chemicals, Inc., and MR™ premium high index materials.



Blue Light Radiation: A Material Solution - level II

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.

This program will present how the selection of specific lens materials can help provide filtration to potentially hazardous blue light. It will begin with a review of how the sun and various digital devices emit High Energy Visible (HEV) light, together with a review of contemporary blue light radiation concerns. UV+420 Cut by Mitsui Chemicals will be introduced, together with its substrate attenuation properties. Who is Mitsui Chemicals? All will be revealed. The benefits of substrate attenuation vs. augmented AR coats will also be presented. What about using such a material with children? Good choice, or not? The program will close with a presentation of techniques to use when discussing HEV light with patients, to increase society awareness of the potential risks of extended, unprotected exposure.



Abbe Value & Refractive Index: The Ongoing Battle – level II

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.

Of the many hats worn by the optician, their major role is to interpret the written glasses prescription and design a piece of finished eyewear that is both cosmetically pleasing and provides the patient with optimum vision. With small refractive errors, this is relatively straight forward. However, as refractive errors increase in power, the optician is faced with additional decisions; the biggest of which involves lens material selection. This course will discuss how making such decisions is often a juggling act, weighing the pros and cons of the myriad of options currently available.



In addition, it will explore how a lens material's refractive index, Abbe value, and dispersive properties are related, together with the influence each has on the patient's visual experience. Material comparisons will be presented, examining their individual properties, and associated strengths and weaknesses. The benefits of providing patients with premium high index MR materials will also be discussed, together with techniques for recommending them to patients.

The Understated Benefits of MR-8™

Premium High Index 1.60 Lens Material – level II

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.



Consumers rely on Eye Care Professionals to recommend the best eyewear solutions, to most effectively ensure that their eyewear provides not only optimal visual performance, but it also meets their cosmetic expectations. Accordingly, many factors must be considered, and decisions made; one of which involves lens material selection. As the title implies, this course will present the benefits of MR-8™: a premium high-index 1.60 lens material. Market share statistics pertaining to lens material preference will be presented. And following a brief discussion as to why polycarbonate often tends to be selected over high-index 1.60, here in the U.S., Mitsui Chemicals, Inc. will be introduced, together with their premium 1.60 material, MR-8™. The benefits provided by MR-8™ will be discussed, in addition to how recommending it as an alternative to polycarbonate can serve to provide consumers with more of what they're looking for from their eyewear – enhanced clarity from their lenses, superior durability when used with certain frame types, and improved cosmetics from a thinner lens.

Index Matching For Optical Excellence – level II

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.



The responsibility to recommend the best lens material rests upon the optician's shoulders, factoring in characteristics such as, refractive index, Abbe value, and specific gravity. In fact, patients will only enjoy best possible vision when the doctor's precisely determined prescription is realized by skilled opticians who ensure that the eyewear is fit, measured, designed, and fabricated, to exacting standards. And that it incorporates the ideal lens type/design, material, and enhancements, to meet the patient's specific needs.

A lens material's refractive index indicates its refractive properties: its ability to refract or bend light. However, the scientific property of refractive index is not limited, in its use, to purely lens materials; hard coatings and anti-reflective (AR) coatings have unique refractive indices of their own. Optimal visual and cosmetic outcomes result when the refractive indices of both the hard coating and lens substrate, specifically, are closely matched. Hence the title of our course: Index Matching For Optical Excellence.

Understanding Premium High Index – level II

Course Description - 1 hour

Presentation fee will be sponsored by Mitsui Chemicals, Inc.



Patients rely on their opticians to recommend eyewear solutions that not only provide optimal visual performance, but also satisfy other expectations including, cosmetics, comfort, and durability, to name a few. Accordingly, many factors must be considered, and decisions made, by the optician; one of which involves lens material selection.

This course will present the benefits and applications provided by a premium high-index lens material. Recommending MR™ premium high index over polycarbonate or acrylic alternatives, provides patients with more of what they're looking for from their eyewear – enhanced clarity, superior durability, and improved cosmetics from a thinner and lighter-weight lens.

Back to Basics - level I

Course Description - 1 hour

What is the primary role of an optician? This program is intended to both remind veteran opticians, and impress upon newcomers, the importance of what we do. It will emphasize the importance of never forgetting the basics; never forgetting that we are employed in the service and sales field. We must never get so wrapped up in the new, high-tech digital lenses and premium options that we forget the very basics which establish the foundation for everything else we do for the patient. We must ensure that patients are always totally satisfied with every aspect of their experience, from service to product performance.

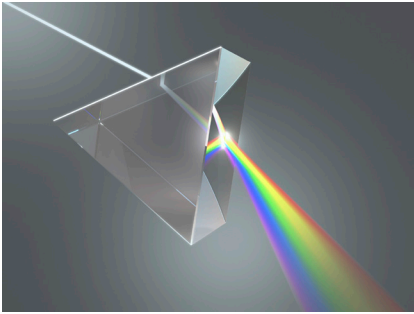
Patients need to experience the value of receiving eye care from a skilled and trained optician. The importance of always providing exemplary customer service skills and patient care will be discussed; tried and tested techniques will also be presented for a variety of scenarios. In addition, fitting and adjustment techniques will be reviewed, as well as proven sales techniques to aid in increasing multiple pair sales.



Managing Prism and Imbalance: Part 1 - level I

Course Description - 1 hour

Part 1 of this 2-part program will begin with a review of basic ophthalmic lens construction and how it connects to the subject of prism. Terminology and prism notation will be discussed, in addition to refractive principles, dispersion, and associated topics. The importance of using accurate data when ordering lenses, and how frame fitting angles can affect lens performance, will be emphasized. Prentice's rule will be reviewed. Eye conditions requiring prescribed prism such as phorias, tropias, and scotomas due to neurological trauma, will be presented. Principles involved in the management of prescribed prism will be examined. Recommended lens enhancements will also be discussed.



Managing Prism and Imbalance: Part 2 - level III

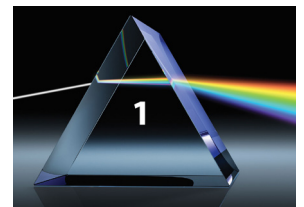
Course Description - 1 hour

Part 2 of this 2-part program will cover how induced prism is related to vertical imbalance. Anisometropia and Antimetropia will be defined, in addition to the point at which these conditions become problematic. How to anticipate a potential imbalance issue will be discussed, together with methods available to correct for vertical imbalance. This course will include examples dealing with advanced optical concepts: determining power in oblique meridians, and the use of different methods to manage vertical imbalance.

Prism 1 - level I

Course Description - 1 hour

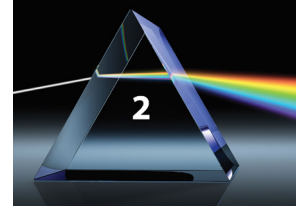
This course, being the 1st in a 3-part series, will present an introduction to prism; a foundation to build upon. It will begin with a basic introduction to light theory, proceed to a discussion on the topic of refraction, and move onto dispersion and the relevance of a lens material's abbe value. The basic structure of prism will be presented, together with an in-depth discussion of the basics. How does prism affect light rays? What factors play a role in prismatic deviation? How does prism play a major role in what we use every day - ophthalmic lenses? Is prism good or bad? How do we use it and what effect(s) does it have for our patients? How can we control its effects, both visual and cosmetic? Lens material selection and recommended options when working with prism will also be discussed. The course will conclude with a presentation of the prism verification process.



Prism 2 - level II

Course Description - 1 hour

This course will resume where “Prism 1” left off. It will begin with discussing prismatic imbalance, with an emphasis on vertical imbalance at near. Methods available to compensate for vertical imbalance at near will be presented, together with real world examples and calculations.



Prism 3 - level III

Course Description - 1 hour

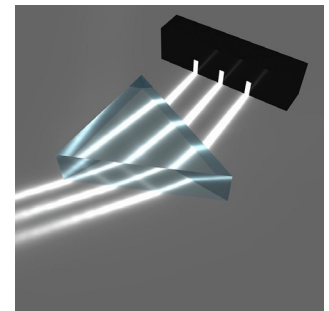
The final part of this series on prism will expand upon the information provided in “Prism 1” and “Prism 2.” Advanced prism concepts will be presented: wrap eyewear and prism, potential vertical imbalance at distance with progressive addition lenses, and yoked prism.



Understanding Prism and Vertical Imbalance – level III

Course Description - 1 hour

This course serves as a condensed version of the 2-hour version: “Managing Prism and Imbalance.” It will begin with a review of basic ophthalmic lens construction and its connection to the subject of prism. Terminology and prism notation will also be discussed; concepts including, compounding, canceling, and splitting prism. What are the effects of induced, non-prescribed prism? What is imbalance, and how are Anisometropia and Antimetropia defined? How to anticipate a potential imbalance issue with an Rx will be presented, together with methods available to correct for it. The program will also include examples dealing with advanced optical concepts.



Only The Best Will Do! - level I

Course Description - 1 hour

In order to succeed in today’s highly competitive eyewear market, it’s vital to stand out from the crowd. One of the most effective ways to accomplish this is to do whatever it takes to ensure that every patient enjoys an incomparable experience during their visit to your office. This course will present the importance of providing an unparalleled standard of care, and this can only be achieved by delivering superior service and premium quality eyewear: frames, lenses, and enhancements. In a nutshell . . . Only The Best Will Do!



Prism BASE-ics! - level I

Course Description - 1 hour

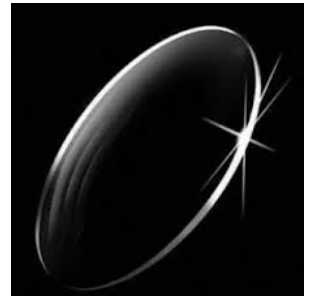
This course will introduce prism basics - its structure, effects, and purpose. How prism does 'its thing'! Prism's role in what we use every day, ophthalmic lenses, will also be explored, in addition to differentiating between 'good' and 'bad' prism. How we use prism will be discussed, as well as ways to best manage its visual and cosmetic effects. Frame and lens material selection, together with recommended lens enhancement options with prescribed prism, will also be presented.



AR Coatings – Who Needs 'em, Anyway?! - level I

Course Description - 1 hour

This course will explore the science of light theory, together with the reflective properties of ophthalmic lenses, and discuss the many benefits AR coatings provide your patients. How AR coatings do 'their thing' will be presented. Since EVERY patient will benefit from AR coated lenses, tried and tested approaches for recommending AR coated lenses will be presented.



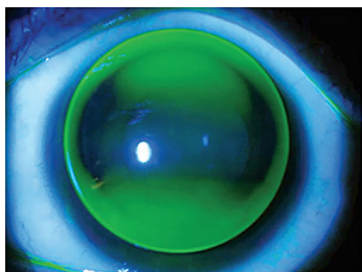
The Dynamics of Lens Power - level II

Course Description - 2 hours (Joint ABO / NCLE)

This course will discuss various aspects of lens power for both ophthalmic lenses and contact lenses. As such, topics covered will begin with a review of the ocular system and visual pathway, refractive errors, and corrective lens options – glasses or contacts.



Lens power and how it relates to the vergence properties of light, will be examined. Units and definition of lens power, and use of the lens power formula, will be presented. Vogel's formula and Tscherning's ellipse will be demonstrated, in addition to the nominal power formula. Some basic theory of lensometry will be reviewed, together with the influence lens power has on magnification. Effective lens power and its influential factors will also be examined; the effective power formula will be demonstrated for both glasses and contacts.



As the course transitions to contact lenses, the Surface Power Formula will be used to convert k measurements to radius of curvature, to facilitate contact lens base curve selection. The lacrimal/tear lens and its influential power effect with rigid contacts will also be presented, together with an explanation of how to work with FAP and SAM for rigid lenses. Our course will close by reviewing the follow up and fine tuning of all lens parameters to best ensure the patient's complete satisfaction.

All The Right Curves . . . - level II

Course Description - 2 hours (Joint ABO / NCLE)

This course will discuss the vital roles that CURVES play in corrective lenses – the surface curves of both ophthalmic lenses and contact lenses. It will begin with an introduction to the basics of light and optical theory, as they pertain to corrective lenses. After which, section 1 will address how curves influence the functionality of ophthalmic lenses; section 2, contact lenses.

SECTION 1: This section will start by reviewing basic principles of refraction, reflection, and vergence. Vogel's formula and Tscherning's ellipse will be demonstrated: their use in determining the base curve of ophthalmic lenses. The nominal power formula will also be presented, together with its role in determining the posterior surface curves of ophthalmic lenses. The Geneva Lens measure or lens clock will be presented, in terms of its use to measure surface curves on ophthalmic lenses. The benefits of aspheric lenses over spherical designs, will also be explored. Traditional surfacing will be compared to digital free-form surfacing technology, and the benefits provided by free-form designs will be examined.



SECTION 2: This section will continue to explore surface curves, in terms of their influence on contact lens' functionality. Basic skills for interpreting keratometry and corneal topography data will be reviewed, together with the steps involved in evaluating corneal curvature findings. Base curve determination for both soft and rigid lenses will be presented. The radiuscope and its use to measure rigid lens surface curves will also be reviewed. In closing, the latest technological advancements in scleral designs, which utilize the benefits provided by digital free-form surfacing, will be discussed.



NCLE

Why Contacts? – level I _____

Course Description - 1 hour

This course will begin with a basic overview of refractive errors and discuss the use of eyeglasses and contact lenses as the primary means of correction. While glasses provide one solution, why not expand the patient's freedom by recommending contact lenses. Why shouldn't the patient have the option to alternate between both glasses and contacts, depending on their needs? This will be discussed, in addition to some industry statistics regarding consumer interest in contact lenses. The general benefits of contact lenses will be explored, together with the added benefits they provide for patients dealing with vision conditions such as anisometropia, antimetropia, and aniseikonia. In addition, the resulting practice benefits will be reviewed. Due to technological improvements, patients who may have been unsuccessful contact lens wearers in the past, or may have been told, years ago, that they were unsuitable for contacts, may now have better luck. However, the eye care professional needs to initiate the conversation; ways to do so will also be presented.



Intro to Soft Contacts – level I _____

Course Description - 1 hour

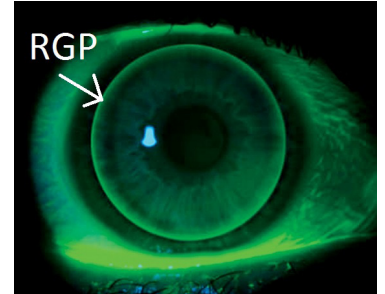
This course will begin with a brief history of soft contact lenses and then proceed to introduce soft lens materials and FDA classifications. Key terminology will be reviewed, prior to exploring the many benefits provided by soft lenses. Moving on, soft lens fitting basics will be reviewed. This will include exploring the influence base curve and lens diameter selection have on the lens-to-cornea relationship, as well as discussing the factors that help determine the most suitable modality for each patient's specific needs. The importance of preparing your patients for success by providing education and guidance will also be presented.



Establishing a Solid Foundation: RGP Designs and Fitting – level II _____

Course Description - 2 hours

This program will begin with a review of the history of contact lenses and then proceed to discuss common terminology associated with contact lenses, in general, with an emphasis on rigid gas permeable designs. When should RGPs be recommended over soft lenses? The decision-making process will be reviewed. Evaluating the written prescription, together with the topic of astigmatism and its sources, will also be discussed: corneal vs. lenticular - how this affects lens selection and design. Keratometry and corneal topography will be explained and compared, together with their roles and purpose. Vertex distance and effective power will be discussed with examples illustrating how to calculate for changes in vertex distance, when necessary, during the fitting process. The chemistry and materials used in RGP lenses will also be presented, together with the characteristics of each: wettability and wetting angle / oxygen transmissibility, etc.. Spherical, front surface toric, back surface toric, and bitoric RGP designs will be discussed, together with how to decide on a design - factors to consider. Next, the program will review RGP verification procedures. How to identify RGP designs, after verification, will also be discussed: spherical / front surface toric / back surface toric / bi-toric. Basic slit lamp biomicroscopy techniques will be presented, as well as fluorescein pattern evaluation. To close, how to correct decentered lenses will be explored.



Contact Lens Selection and Patient Education – level II _____

Course Description - 1 hour

Hard or soft, planned replacement or daily disposables? How do you decide on the most appropriate contact lens option for each patient's unique visual needs and daily demands? This course will first discuss the many factors to consider when making such decisions. The fitting process will be broken down into five detailed steps; all serving to best ensure the patient's success and satisfaction. Then, the focus of the course will switch to the importance of providing detailed patient education, to ensure that every patient is well prepared to be a successful, healthy, and compliant contact lens wearer.



Math For Common Optical Concepts: Part 1 - level II _____

Course Description – 1 hour (Joint NCLE / ABO)

The daily lives of Eye Care Professionals require the use of many optical concepts. This two-part course explores a selection of the most common, from a mathematical perspective. Part 1 will address basic to intermediate topics and part 2 will explore more advanced.

Actual examples of the calculations involved will be provided for each concept discussed. The topics covered in part 1 include basic metric conversion, basic algebra and how to rearrange formulas, the order of operations and its purpose, use of the focal length formula, Vogel's rule, the effective power formula for changes in vertex distance, minimum blank size calculation, and use of

the surface power formula for contact lens base curve determination. It goes without saying, a math course on optical concepts would be incomplete without including some prism-related demonstrations.



Math For Common Optical Concepts: Part 2 - level II _____

Course Description – 1 hour (Joint NCLE / ABO)



The conclusion to this 2-part course expands upon the basic topics discussed in part 1 to explore more advanced common optical concepts, from a mathematical perspective. The topics covered in part 2 include examples involving lens magnification, isekonic lens design, sagittal depth, and lens thickness. In addition, calculations associated with GP toric lens verification will also be presented. Finally, the steps involved in calculating vertical imbalance at both near AND distance, in a progressive addition lens, will be demonstrated.

Aniseikonia: The Problem, The Solutions – level III

Course Description - 2 hours (Joint NCLE / ABO)

This course will provide an in-depth discussion on aniseikonia and its various types.

The Problem: the ways in which aniseikonia can be problematic and challenging, for both the patient and the eye care professional, will be explored. Some of the symptoms often experienced by those for whom aniseikonia becomes clinically significant will also be reviewed. Spectacle magnification and its influential factors will be examined, together with a step-by-step guide for handling the related calculations. Axial vs. refractive ametropias will be discussed, and ways to estimate the source of the ametropia will also be presented. Anisometropia will be defined, together with its significance. Knapp's law will be explored, together with how it compares to clinical findings regarding the best eyewear solution for the treatment of aniseikonia.



The Solutions: determining the most effective optical corrective device (ophthalmic lenses or contact lenses), when treating the aniseikonia patient, will be presented, based on the source of the ametropia. Binocular vision and retinal correspondence will be discussed, in addition to stereoscopic vision, and the significance of the horopter and Panum's area of fusion. Iseikonic lens design will be explored, together with examples of parameter modifications. This course will also answer why contact lenses continue to be the most effective optical device for treating ALL aniseikonia patients.

Contact Lens Management of Aniseikonia - level II

Course Description - 1 hour

This course will explore aniseikonia, together with its causes and effects. In addition, why contact lenses prove to be the most effective eyewear solution for the management of aniseikonia, will also be presented.

Aniseikonia can be problematic and challenging, for both the patient and the eye care professional. Some of the symptoms often experienced by those for whom aniseikonia becomes clinically significant will be reviewed. Spectacle magnification and its influential factors will be examined. Axial vs. refractive ametropias will be discussed, and ways to estimate the source of the ametropia will also be presented. Anisometropia will be defined and its influence, examined. Iseikonic lens design will be explored. This course will answer why contact lenses continue to be the most effective optical device for treating ALL aniseikonia patients.



All The Right Curves . . . - level II

Course Description - 2 hours (Joint NCLE / ABO)

This course will discuss the vital roles that CURVES play in corrective lenses – the surface curves of both ophthalmic lenses and contact lenses. It will begin with an introduction to the basics of light and optical theory, as they pertain to corrective lenses. After which, section 1 will address how curves influence the functionality of ophthalmic lenses; section 2, contact lenses.

SECTION 1: This section will start by reviewing basic principles of refraction, reflection, and vergence. Vogel's formula and Tscherning's ellipse will be demonstrated: their use in determining the base curve of ophthalmic lenses. The nominal power formula will also be presented, together with its role in determining the posterior surface curves of ophthalmic lenses. The Geneva Lens measure or lens clock will be presented, in terms of its use to measure surface curves on ophthalmic lenses. The benefits of aspheric lenses over spherical designs, will also be explored. Traditional surfacing will be compared to digital free-form surfacing technology, and the benefits provided by free-form designs will be examined.

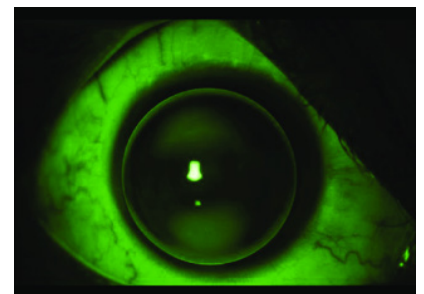


SECTION 2: This section will continue to explore surface curves, in terms of their influence on contact lens' functionality. Basic skills for interpreting keratometry and corneal topography data will be reviewed, together with the steps involved in evaluating corneal curvature findings. Base curve determination for both soft and rigid lenses will be presented. The radiuscope and its use to measure rigid lens surface curves will also be reviewed. In closing, the latest technological advancements in scleral designs, which utilize the benefits provided by digital free-form surfacing, will be discussed.

Tackling GP Basics, Head On - level II

Course Description - 1 hour

This program will begin by reviewing common terminology associated with contact lenses; specifically, rigid gas permeable (GP) designs. GP lens material properties including oxygen transmissibility and surface wettability will be presented, in addition to the properties of the tear film and its impact on GP lens functionality. Questions such as, "When should GPs be recommended over soft lenses?" will be addressed. In addition, an overview of both keratometry and corneal topography will be presented, together with their function and purpose. Corneal vs. lenticular astigmatism will be explored, together with how such factors influence lens selection and design. Use of the Effective Power Formula will be demonstrated, in addition to compensating for lens power changes due to changes in vertex distance when fitting contact lenses.



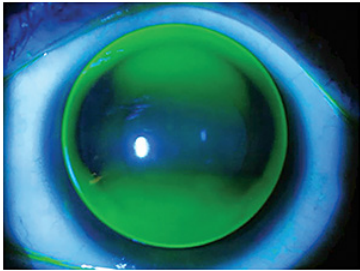
The Dynamics of Lens Power - level II

Course Description - 2 hours (Joint NCLE / ABO)

This course will discuss various aspects of lens power for both ophthalmic lenses and contact lenses. As such, topics covered will begin with a review of the ocular system and visual pathway, refractive errors, and corrective lens options – glasses or contacts.



Lens power and how it relates to the vergence properties of light, will be examined. Units and definition of lens power, and use of the lens power formula, will be presented. Vogel's formula and Tscherning's ellipse will be demonstrated, in addition to the nominal power formula. Some basic theory of lensometry will be reviewed, together with the influence lens power has on magnification. Effective lens power and its influential factors will also be examined; the effective power formula will be demonstrated for both glasses and contacts.



As the course transitions to contact lenses, the Surface Power Formula will be used to convert k measurements to radius of curvature, to facilitate contact lens base curve selection. The lacrimal/tear lens and its influential power effect with rigid contacts will also be presented, together with an explanation of how to work with FAP and SAM for rigid lenses. Our course will close by reviewing the follow up and fine tuning of all lens parameters to best ensure the patient's complete satisfaction.