The Mission Statement of the NBEO is to serve the public and the profession of optometry by developing, administering, scoring, and reporting results of valid examinations that assess competence.

The purpose of TestPoints® is to share with the various optometric communities the news, events, and changes that are happening at the National Board of Examiners in Optometry (NBEO). Comments and questions may be directed to nbeo@optometry.org.

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A Note from the NBEO CEO … NBEO Workshop Presented at ARBO Annual Meeting

As a part of the June 2016 ARBO meeting in Boston, the NBEO had the distinct pleasure of offering a 3-hour workshop entitled Everything You Would Like to Know about NBEO Exams. The event took place immediately prior to a delicious lunch and the opening ceremonies of the 2016 ARBO Annual Meeting.

The National Board was represented at the workshop by NBEO Directors Drs. Bill Rafferty, Jill Martinson-Redekopp, and Jerry Richt. Also representing the NBEO were Dr. Brett Foley (psychometrician, Alpine Testing Solutions, Inc.); Dr. Jill Bryant (NBEO COO); and myself.
The workshop was attended by state board members and their board-office staff from at least 35 different jurisdictions, many of whom were attending the NBEO workshop for the first time. Dr. Foley and I were allotted 3 hours during which we discussed a variety of important topics related to licensure and NBEO examinations. As this was the third year of our jointly presented workshop, Brett and I surely appreciated the opportunity to return to the ARBO podium to enable the various state optometry board members and their staff to better understand the functions and purposes of our exams.

Topics discussed included the basics of our standard entry-level exams. These consist of the Part I Applied Basic Science (ABS); the Part II Patient Assessment and Management (PAM), in which the Treatment and Management of Ocular Disease (TMOD) is embedded; and the Part III Clinical Skills Exam (CSE), with its embedded Injections Skills Exam (ISE). The discussion of Part III CSE included a pictorial walk-through of the National Center of Clinical Testing in Optometry (NCCTO). We also described our current efforts to add elective advanced skills testing within the Center through the Laser and Surgical Procedures Exam (LSPE).

Dr. Foley and I explained the meaning of the 300 minimum passing score (MPS) of these exams and how this score initially is set during standard setting events for each type of exam. We then described how the MPS is maintained at a consistent level of difficulty, from exam to exam, through the process of equating.

I reviewed the significance of the NBEO Ethics Program and Ethics Video, and then described the methods used by the NBEO to assure that the exam results that are released to the state boards are valid and trustworthy.

Dr. Foley summarized the importance of the latest job task analysis (JTA) performed by NBEO. He explained some of the preliminary demographics and data from the respondents. The intent of the JTA was to maintain congruence between NBEO exams and the contemporary practice of optometry. Brett also presented the pass rate trends for the Part I, II, and III exams.

During the afternoon session, NBEO discussed the Online State Law Examination (OSLE) system as well as the practitioner-level self-assessment, CPDO (Continued Professional Development in Optometry).

The NBEO sincerely appreciates having had this opportunity to describe to our clients, the licensing boards of optometry, some of what the NBEO is doing to assist their efforts to protect the public, our patients. We sincerely thank ARBO for the invitation to hold this workshop in concert with a very busy ARBO agenda.

– Jack E. Terry, MS, OD, PhD; NBEO CEO
Laser and Surgical Procedures Exam (LSPE) Development Meetings

Laser Task Force Meeting, January 2012

The initial Laser Task Force met at the NBEO complex in Charlotte, North Carolina in January 2012. During this original laser/surgical procedures meeting, the possibility of and justification for an NBEO examination to test these entities were explored.

Pertinent questions that were pondered during the Task Force meeting:

- Is NOW the time for NBEO laser and surgical procedures assessments?
- Which "Standardized Patient" model will be used?
- Which specific skills should be assessed for:
  - laser procedures?
  - surgical procedures?
- What are the equipment needs?
- What are the qualifications for Examiners?
- Who will be eligible to take the LSPE?

The primary purpose of the task force was to identify the components and concepts involved in developing an assessment of advanced clinical skills in laser and surgical procedures. An initial step was to define the most appropriate skills that logically could be assessed (shown below).

Skills considered by the Laser Task Force for possible inclusion in the Laser and Surgical Procedures Examination (LSPE):

- YAG posterior capsulotomy
- Laser peripheral iridotomy
- Laser iridoplasty
- Argon laser trabeculoplasty
- Selective laser trabeculoplasty
- Laser vitreolysis (anterior chamber)
- Laser suturelysis (intracorneal or subconjunctival)
- Incision and curettage of chalazion
- Skin tag (acrochordon) removal
- Shave excision/biopsy
- Radiosurgical ablation of cutaneous lesion
- Incisional biopsy of cutaneous neoplasm
- Excisional biopsy of cutaneous neoplasm
- Thermal/radiosurgical punctoplasty
- Thermal/radiosurgical punctual closure
- Radiosurgical epilation/follicular ablation
- Repair of entropion by suture (Quickert Technique)
- Procedures for wound management and closure by primary intent, including suture, tissue adhesives, and tapes
- Procedures for cutaneous anesthesia (transdermal and infiltrative)

As background to proceeding with this endeavor, the group was introduced to the many aspects of the NCCTO (National Center of Clinical Testing in Optometry), which would serve as the location for LSPE testing. Basic NCCTO fundamentals were shared, which included a tour of the NBEO/NCCTO facility; numerous resource documents; the concepts of Standardized Patients, In-House Examiners, and Remote Examiners; and the clinical testing videography software and related revisions to the National Board’s proprietary OEDIS database (Optometric Examination Data Information System).

The status of laser/surgical procedures included in various state statutes was discussed, as well as the availability of laser and surgical training within the schools and colleges of optometry and post-graduate programs.
Laser and Surgical Procedures Exam Development Committee Meeting, April 2016

Subsequent to the introductory task force gathering in 2012, the first formal meeting of the Laser and Surgical Procedures Examination (LSPE) Development Committee was held at the NBEO headquarters in Charlotte, North Carolina on April 8-10, 2016.

Laser and Surgical Procedures Examination (LSPE) Meeting Participants

**Committee members:**
- Dr. Jeff Anastasio, Louisiana Family Eyecare (Covington, LA)
- Dr. Rex Ballinger, Baltimore VA Medical Center (Baltimore, MD)
- Dr. Rich Castillo, Northeastern State University College of Optometry (Tahlequah, OK)
- Dr. Cliff Caudill, University of Pikeville (Pikeville, KY)
- Dr. Michelle Dent, Robert J. Dole VA Medical Center (Wichita, KS)
- Dr. James Hunter, Indiana University College of Optometry (Bloomington, IN)

**National Board Examination Review Committee (NBERC) representative:**
- Dr. Greg Moore, Appalachian Eyes (Charleston, WV)

**NBEO representatives:**
- Dr. Bill Rafferty, Liaison to NBEO Board of Directors (Winston-Salem, NC)
- Dr. Jack Terry, Chief Executive Officer (Charlotte, NC)
- Dr. Lyndon Wong, Director of the NCCTO and Part III CSE (Charlotte, NC)
- Dr. Jill Bryant, Chief Operating Officer (Charlotte, NC)

A welcome was extended to the NBEO visitors by both Drs. Rafferty and Terry. Dr. Terry’s opening remarks included a review of the steps involved in test development. The group toured the NCCTO to provide necessary background for the Committee members who were not a part of the 2012 Task Force. Dr. Wong explained the mechanics of Part III Clinical Skills Examination (CSE) and Injections Skills Examination (ISE) testing. Dr. Terry described to the development committee the process of creating a stand-alone assessment of clinical skills in laser and surgical procedures. He stated that the NBEO will need to test at a level that aligns with contemporary optometry. Dr. Terry also reviewed the work that was begun in 2012 by the Laser Task Force.

**Clinical skills list ultimately recommended by the 2012 Laser Task Force:**
- Selective laser trabeculoplasty
- YAG capsulotomy
- Peripheral iridotomy
- Skin tags with infiltrative anesthesia
- Removal of chalazia
- Suturing
Dr. Bryant updated the development committee members about the status of state statutes regarding laser and surgical procedures. Drs. Anastasio, Castillo, and Caudill outlined the credentialing requirements in their respective states. These are summarized in the box below.

The credentialing process for laser and surgical procedures in states that currently offer these functions to optometric practitioners:

**Louisiana requirements**
- Take the NSU laser course and pass the post-test
- Pass a Louisiana state optometry law examination
- Pass a practical examination
- Complete an oral interview

**Oklahoma requirements**
- Take the NSU laser course and pass the post-test
- Pass an Oklahoma state optometry law examination
- Pass a practical examination which includes dialogue with an examiner

**Kentucky requirements**
- Take the NSU laser course and pass the post-test
- Perform procedures with a preceptor on live patients
- Pass a Kentucky state optometry law examination

During the meeting, it was stated that now is the perfect time for the NBEO to develop a laser and surgical procedures examination. It was noted that the Northeastern State University laser courses at the College of Optometry in Tahlequah have never been busier, and that the state of Oklahoma has offered laser privileges to optometrists for many years, with a highly positive record that demonstrates excellent competence. The state of Kentucky added laser privileges to the practice of optometry in 2011, and the Kentucky College of Optometry at the University of Pikeville soon will be teaching the procedures. The Indiana University School of Optometry now includes a laser course within the standard optometric curriculum.

The LSPE Development Committee then focused attention on various model options and clinical skills. Members worked diligently to design the skill set for selective laser trabeculoplasty (SLT), YAG capsulotomy, peripheral iridotomy (PI), suturing, and chalazion excision. The committee agreed upon the use of the Lumenis Selecta® Duet™ and the SimuEYE models for SLT and YAG capsulotomy. Research continues regarding the best method to assess PI skills.

The Selecta automatically runs internal tests to ensure that every laser pulse meets the exact power requirement needed. A secondary control unit guarantees the power accuracy of each laser shot and a temperature-controlled KTP crystal ensures the continuous accuracy and stability of the 532 nm (green) laser beam. Advanced component selection, laser delivery technology, and enhanced slit lamp optics provide consistently optimal performance. The Selecta offers a highly accurate super gaussian beam profile to achieve optical breakdown (photo disruption) with the lowest possible energy levels, which increases the Selecta’s safety profile and permits the performance of capsulotomies on all types of intraocular lenses with lower risk of lens pitting or diverse effects. More efficient tissue effects are possible, using lower power and fewer shots.
For the suturing skill, research and development are ongoing as the committee evaluates the Nasco Life/forms® Facial Suturing Module Set. To assess candidate skill in performing chalazion excision, the committee is considering the Limbs and Things® Sebaceous Cyst Pad. Components of the LSPE being considered for use are shown below, including the Ethicon® black braided suture, the Katena® Snider suturing forceps, and the Katena® Snider chalazion forceps. Additional, more definitive information regarding equipment will be forthcoming on the NBEO website and in future issues of TestPoints.

The committee agreed that in addition to the clinical skills portion of the LSPE, a computer-based 'written' examination also will be employed to further evaluate candidate knowledge. This examination will cover SLT, PI, YAG capsulotomy, suturing, chalazion excision, ocular anesthesia, and other related topics. Tentatively, there will be approximately 50 multiple-choice items on the CBT portion of this exam.

The next LSPE Development Committee meeting is scheduled for August 5-6, 2016. A pilot study is planned for August 5, 2016 during which seasoned optometric practitioners will perform the LSPE skills and provide valuable feedback and insights to the development committee.

Ultimately, it is anticipated that the first Laser and Surgical Procedures Exam will be offered for elective candidate use by mid-to-late 2017.
Dr. Juan Ding of the New England College of Optometry, Boston, Massachusetts was named the recipient of the 2016 Dr. Norman E. Wallis Award for Excellence. This award was established to honor the outstanding service provided by Dr. Wallis, who served as Executive Director of the National Board of Examiners in Optometry (NBEO) for 25 years. The award is bestowed upon the candidate who receives the highest score on the targeted Part I Applied Basic Science Examination each year.

The Award consists of a personalized plaque as well as a full refund of the Part I registration fee. The Award was presented to Dr. Ding in June, 2016 at the Annual Meeting of the American Optometric Student Association (AOSA) by Dr. William B. Rafferty, President of the National Board of Examiners in Optometry. Drs. Ding and Rafferty were joined by Dr. Clifford Scott, President of the New England College of Optometry.

Dr. Ding was born in the city of Yulin, in the Shannxi Province of China. She earned a PhD in 2009 in Molecular and Cellular Biology at Ohio University in Athens, Ohio. Her PhD thesis was entitled *A proteomic approach to identify biomarkers of growth hormone and aging*. She served as a post-doctoral research associate in Endocrinology at Ohio University and then as a post-doctoral fellow in Dry Eye Disease at Harvard Medical School’s Schepens Eye Research Institute in Boston, MA.

Dr. Ding has lectured regionally, nationally, and internationally. Her diverse topics of interest have included:

- From translational regulation to insulin resistance - a tale about S6K
- Adventures in meibomian gland research: beauty without the beast
- How do we find the fountain of youth for the meibomian gland?
- Use of proteomics to study the actions of growth hormone
- Searching for small diagnostic proteins in plasma indicative of GH action
- Proteomic biomarkers of short-term growth hormone injection in mice
- Biomarkers of aging - proteomic analysis of mouse plasma
- Friend or foe: anti-aging cosmetics on the eye
- Growth hormone in corneal wound healing
- Impact of insulin, IGF-1 and growth hormone (GH) action on the cornea and meibomian gland, and potential sex differences
- The good and bad of retinoic acid - Effects on ocular surface and adnexal tissues

In addition, Dr. Ding has authored an impressive number of articles since 2006. Publications to which she has contributed include:

- *Growth Hormone & IGF Research*
- *Nature Reviews Endocrinology*
- *Age*
- *Endocrine Reviews*
- *Transgenic Research*
- *Proteomics*
- *Journals of Gerontology: Series A, Biological Sciences & Medical Sciences*
- *Molecular Cancer Therapeutics*
- *Investigative Ophthalmology & Visual Science*
- *JAMA Ophthalmology*
- *Cornea*
- *The Ocular Surface*
- *Journal of Pharmacogenomics Pharmacoproteomics*

Dr. Ding also submitted a ‘Letter to the Editor’ to the *British Journal of Ophthalmology*, which was accepted for publication in 2014.

Dr. Ding will graduate with an OD degree in the spring of 2017. She plans to practice optometry and to help patients by participating in research in various eye diseases. The National Board extends sincere congratulations regarding her Part I ABS score, and best wishes into the future, to Dr. Juan Ding!
The annual spring meeting of the NBEO Board of Directors (BoD) was held from May 27 – 29, 2016 in St. Louis, Missouri. NBEO BoD meetings always are held in a city that hosts an optometry school. A primary activity during each spring meeting includes a tour of that city’s college by the National BoD. These annual tours are highly beneficial in maintaining Board members’ familiarity with the many institutional aspects of optometric education. Each year, TestPoints will feature an article about the school that is visited by the NBEO BoD as a part of the annual spring meeting. This year’s article covers the BoD tour of the University of Missouri-St. Louis (UMSL) College of Optometry.

On the appointed day, the National Board representatives took a shuttle ride to the school, which was in a state of great flux. At the time of the NBEO Board visit in May, 2016, UMSL’s optometry students were studying and learning clinical skills in the renovated former dormitory called Marillac Hall. This venue has housed the optometry school for 36 years, during which multiple renovations and upgrades were implemented. The didactic portion and related administrative aspects of UMSL optometric education will remain in Marillac Hall for some time while the clinical side of the educational process, along with its administrative support, is in the process of moving to a brand new building across the UMSL campus, which made for an interesting tour.

The University of Missouri-St. Louis College of Optometry in Marillac Hall

Dean Larry Davis met his visitors at the front door of Marillac Hall and the tour then began in the front lobby:

From left to right: Dean Larry Davis; Dr. Mel Shipp (NBEO BoD member); Dr. Lewis Reich (NBEO BoD member); Dr. Jill Bryant (NBEO COO); Dr. Elizabeth Hoppe (NBEO BoD member); Dr. Alan King (NBEO BoD member); Dr. William Rafferty (NBEO BoD President); Dr. Jerry Richt (NBEO BoD member); Dr. Jill Martinson-Redekopp (NBEO BoD member); Mr. Erick Henderson (NBEO/AOSA Liaison); and Dr. Jack Terry (NBEO CEO)
Dean Davis led the way to a classroom within Marillac Hall where the NBEO Board members were joined by several UMSL faculty and staff members and two student representatives.

Dr. Larry Davis addresses the group of NBEO, AOSA, and UMSL College of Optometry representatives

Dr. Davis welcomed his visitors and then described the educational program at the College. The College of Optometry operates three full-service eye care facilities within the city of St. Louis. These clinical facilities collectively are referred to as the "Center for Eye Care." The Center is part of the University of Missouri-St. Louis College of Optometry’s extensive network of research on vision problems at these distinct clinical settings. Eye care within the Center is divided into the service of Primary Care, four specialty service clinics, and the Dispensary. The College participates in seven residency programs, most of which are hospital-based.

Dean Davis then described the remarkable involvement of students in the brand new, $17 million, 48,000-square-foot UMSL Patient Care Center, which is located on UMSL’s south campus. This new building was well under construction at the time of the NBEO BoD meeting in St. Louis.

In 2013, when the current building project was a mere concept, nearly 80% of UMSL’s optometry students were willing to help pay for a contemporary educational facility and voted in favor of the addition of a new student fee to help cover the expenses. When fully constructed and outfitted, the building will serve as the instructional and clinical care facility for both the optometry and nursing colleges. In addition, the new building was designed to include rental space for campus and community partners to offer complementary health care services, such as dental and primary care. The project was funded by $5 million from campus reserves and the new student fee that financed $12 million in bonds. This fee costs each optometry student $1,800 a year.

Following the introductory address, Dr. Davis and the student representatives led small groups of NBEO Directors through Marillac Hall. The photos below depict the Marillac lobby and the anatomy lab.

UMSL-St. Louis College of Optometry lobby

The tour group visits the anatomy lab

Upon completion of the tour of Marillac Hall, the entire tour group made their way across campus to the new building that soon will house The Center for Eye Care in the Patient Care Center at the University of Missouri-St. Louis. This facility will be equipped with the most contemporary technology necessary to advance eye and vision research, which will assist in recruiting highly qualified faculty members and optometry students.
Pictured below is the new two-story atrium, under construction as the National Board visited the campus in May 2016 (on the left), and now nearly finished and ready for use in summer 2016 (on the right). This multi-storied lobby leads the way to four patient care sections, including adult eye care, pediatric eye care, contact lens eye care, and primary health care. Each clinic features student-faculty consultation space and individual and group learning space and promotes collaboration among students, faculty, and staff.

Dean Davis led his visitors throughout the building under construction, including such stops as the main reception area, the optical dispensary, several hallways of future exam rooms, and the sizeable second floor, which is slated to be rented as additional multidisciplinary healthcare space.
The NBEO Board of Directors Tours UMSL College of Optometry (continued)

Through great effort, excitement, devotion, and enthusiasm on the part of many diverse individuals at all stages of the profession of optometry, the UMSL College of Optometry very soon will have a beautiful, new, fully operational building in which to kick off the 2016-2017 academic year.

Many thanks to Mr. Nicholas Palisch, College Director of Student and Alumni Services, for assistance with photo updates.

Part I ABS: From Paper-and-Pencil to Computer-Based Testing

As was fully described in the Spring 2016 issue of TestPoints, the final paper-and-pencil (PNP) version of the Part I Applied Basic Science (ABS) exam will be administered in August 2016, then to be replaced by the computer-based test (CBT) form of this exam in March 2017. There will be several differences between the PNP and CBT formats:

- The existing PNP ABS exam consists of 500 items; the future CBT Part I exam will include 370 items. 350 items will be scored and 20 items will be unscored pre-test items. Candidates will not know which items are scored and which are pre-test.
- The current PNP ABS exam is given in four 3.5-hour sessions over 2 days; the future CBT Part I exam will be divided into two 4-hour sessions on a single day.

For the March 2017 administration, candidates will select 1 day out of 4 available days to take the exam. Different forms of the exam will be given on each of the 4 days. The exam is being offered on 4 separate test days in March because of the limited number of Pearson VUE test center seats near some of the schools and colleges of optometry. In August 2017, the exam will be offered only on a single day.

Registration for the March 2017 administration of the Part I exam opens on August 29, 2016. It is highly recommended that Part I ABS candidates REGISTER EARLY for this CBT exam to maximize the opportunity to schedule a seat at the Pearson VUE test center of choice. Pearson VUE will specifically reserve seats for the March NBEO Part I exam until the close of business on January 19, 2017, after which, seats will be released for general use. It quickly becomes difficult or impossible to schedule a seat at popular test centers. Act quickly when Part I registration opens and sit for this exam at your preferred test location and on your desired date!

The National Board will continue to provide an effective and appropriate Part I ABS board exam that renders valid, reliable scores. State boards need not be concerned about the reduced number of items on the revamped ABS exam since a comparison study of other health professions’ basic science exams revealed that the future CBT Part I exam will consist of a median number of items, to be given in a similar amount of test time. The study included the professions of medicine, osteopathy, dentistry, and podiatry.

In addition, the Part I Exam Development Committee and Council are critically aware of the need to maintain the quality of the exam and will continue to follow the Content Outline and Matrix as they fulfill the subject matter requirements of the exam.

Updated details regarding the switch from a PNP Part I ABS exam to the new CBT format will be offered on the NBEO website as they become known. Interested parties are encouraged to check the website frequently.
Part I Applied Basic Science (ABS)  
March 2016 Exam Administration

On March 15 - 16, 2016, the Part I Applied Basic Science (ABS) examination was administered. The examination consisted of 500 stand-alone multiple-choice items given during four 3.5-hour sessions, each consisting of 125 items. Following detailed exam results analysis, the total number of scored items on the March 15 – 16, 2016 ABS was 492 items.

A total of 2,057 candidates took the March 2016 test; 1,416 (68.8%) passed the exam. Of the 2,057 candidates who sat for this exam, 1,645 (80.0%) were student candidates taking the test for the first time; 1,285 (78.1%) of the first-time student candidates passed the examination. Among the 234 repeat student candidates, 89 (38.0%) passed the exam. Of the 178 non-traditional examinees (graduate first-timers, graduate repeaters, and sponsored candidates) 42 (23.6%) passed the Part I ABS exam.

The graph above presents the distribution of scaled scores for the targeted March 2016 Part I ABS exam, in 100-point increments. The distribution reveals that a total of 1,416 candidates earned a passing scaled score of 300 to 799 while 641 examinees earned a scaled score of 100 to 299, with the lowest possible ABS scaled score being set at 100. The peak scoring range was in the 400-499 range, in which 410 candidates scored. A group of 44 examinees earned scores in the interval of 700-799, the highest interval represented in the March 2016 ABS exam.

The scaled score range for the Part I ABS exam is based on a 100-900 scale, where 100 represents the lowest scaled score and 900 represents a perfect score. In cases where the scaling procedure results in a raw score being converted to a score of less than 100, a scaled score of 100 is assigned. In addition, the exam pass-fail cutoff score is scaled so that it always equals 300.
Part II PAM/TMOD: Case-Authoring Workshop In Charlotte, North Carolina

Over the weekend of June 4-5, 2016, a Part II PAM/TMOD Case-Authoring Workshop was held at the NBEO offices in Charlotte, North Carolina. The workshop represented the culmination of a several-month long, multi-step process during which potential case authors were trained how to write exam material.

The initial step of the process involved an invitation to participate in the case-writing webinar. The invitation was sent to all optometry schools/colleges. The institutions were invited to submit names of potential exam-material authors. In addition, Dr. Nicole Stefani (Director of the Part II exam) and Dr. Jill Bryant (NBEO COO) had collected several names of ODs suggested by various NBEO committee and council members.

Approximately 48 optometrists signed up for and participated in the webinar, which was held on February 18, 2016. Following the instructional portion of the program, all participants were asked to write and submit 2 cases in order to enhance their familiarity with the authoring procedure.

Invitations to attend the authoring workshop in Charlotte, NC were dispatched to the ODs who had written and sent in well-constructed cases. While several of the new authors were not available to attend the workshop, the NBEO was very pleased to host 10 new authors. Drs. Matt Cordes and Marc Taub, both long-term members of the PAM Exam Development Committee and Council, agreed to serve as experienced authoring mentors.

**Part II Patient Assessment and Management (PAM) Case-Authoring Workshop Participants**

New case authors:
- Dr. Anna Bedwell, Indiana University (Bloomington, IN)
- Dr. Annie Chang, Marshall B. Ketchum University (Fullerton, CA)
- Dr. Kim Dillivan-Cooper, private practice (Niles, MI)
- Dr. Alicia Groce, Southern College of Optometry (Memphis, TN)
- Dr. Trina Perkins, VAMC (The Villages, FL)
- Dr. Matt Simpson, VAMC (St. Louis, MO)
- Dr. Ashley Speilburg, Illinois College of Optometry (Chicago, IL)
- Dr. Karen Squier, Southern College of Optometry (Memphis, TN)
- Dr. Amanda Tompkins, Southern College of Optometry (Memphis, TN)
- Dr. Melissa Vitek, Salus University (Philadelphia, PA)

Authoring mentors:
- Dr. Matt Cordes, VAMC (The Villages, FL)
- Dr. Marc Taub, Southern College of Optometry (Memphis, TN)

NBEO representatives:
- Dr. Jack Terry, Chief Executive Officer
- Dr. Nicole Stefani, Director of Part II PAM/TMOD
- Dr. Jill Bryant, Chief Operating Officer

The authoring group included Drs. Jill Bryant, Marc Taub, Annie Chang, Matt Cordes, Trina Perkins, Alicia Groce, Amanda Tompkins, Matt Simpson, Karen Squier, Anna Bedwell, Melissa Vitek, Ashley Speilburg, Kim Cooper, and Nicole Stefani
Following the Winter 2016 case authoring webinar and fulfillment of the Spring 2016 training authoring requirement, the June 2016 workshop meeting commenced with a welcome and introduction by Dr. Jack Terry, NBEO CEO.

Dr. Nicole Stefani then explained the basics of the PAM exam structure and reviewed some indispensable authoring instructions. These included the general NBEO case authoring guidelines, the disease and refractive case templates, examples of History of Present Illness (HPI), and samples of Review of Symptoms (ROS). Some suggested item stems were shared, as well as the concept of option thread continuity within case items. Dr. Stefani spoke about the three reference lists used by authors, to include drugs, abbreviations, and diagnoses. She also covered the rules that govern case submission and security, which are designed to maintain exam material confidentiality. Dr. Stefani then shared the wish-list menu of specific PAM/TMOD content-matrix topics on which the cases needed should be based.

Dr. Stefani led the group as practice items provided within the meeting workbook were assessed. The practice questions purposely came equipped with problems that were first exposed and then remedied by the group. Once the practice items had been assessed and refined, everyone broke up into small subject-matter sections to put their new skills to work, using the disease and refractive authoring templates to generate new cases.

Dr. Bryant assisted with the instructional session and spent time with the individual groups, providing case-authoring guidance.
Lunch around noon on both days of the workshop was coordinated by Ms. Andrea Moss, NBEO Executive Assistant, in the hospitality area of the NBEO offices. In addition to impeccably orchestrating breakfast, lunch, and snacks, Ms. Moss also arranges hotel accommodations and dinner reservations for the many exam development and other types of groups that visit the NBEO throughout each academic calendar year. Ms. Moss provides invaluable support to the National Board as she manages a broad range of widely varied responsibilities.

The NBEO greatly appreciates the time, interest, and effort expended by our team of Part II PAM/TMOD case authors. As has been noted in previous issues of TestPoints, the NBEO could not function in its mission to protect the public’s safety without the immense support it receives from its many volunteers who contribute a vast cache of knowledge and expertise to the National Board’s board-level examination operations. Great appreciation is extended to all of our optometric subject-matter experts!

Anyone interested in joining the case authoring or item writing team for any NBEO exam is encouraged to send an email to nbeo@optometry.org. The communication will be forwarded to the appropriate exam director (Part I ABS, Part II PAM/TMOD, ACMO, or CPDO). The National Board also is always in need of new photographic images of normal and atypical ocular structures, disease, refractive problems, test results, etc. Any such images can be emailed to the NBEO and would be greatly appreciated and put to good use in future exams.
Part II Patient Assessment and Management (PAM) 
April 2016 Exam Administration

The Part II Patient Assessment and Management (PAM) examination was administered on April 5, 2016. The examination consisted of 52 simulated patient cases, 19 stand-alone multiple-choice items, and 15 minicases, administered over two sessions of 175 items each. Following a detailed analysis of exam results, the total number of scored items on the April 2016 exam was 348 items.

A total of 328 candidates sat for the April 2016 test; 201 (61.3%) passed the exam. Of the 328 candidates who took the April exam, 14 (4.3%) were student candidates taking the test for the first time; 8 (57.1%) first-time student candidates passed the examination. Among the 229 repeat student candidates, 168 (73.4%) passed the exam. Of the 85 non-traditional examinees (graduate first-timers, graduate repeaters, and sponsored candidates), 25 (29.4%) passed the Part II PAM exam.

The graph above presents the distribution of scaled scores for the non-targeted April 2016 Part II PAM exam, in 100-point increments. The distribution reveals that a total of 201 candidates earned a passing scaled score of 300 to 699 while 127 examinees earned a scaled score of 100 to 299, with the lowest possible PAM scaled score being set at 100. The peak scoring range was in the 100-199 range, in which 83 candidates scored. A group of 9 examinees earned scores in the interval of 600-699, the highest interval represented in the April 2016 PAM exam.

The scaled score range for the Part II PAM exam is based on a 100-900 scale, where 100 represents the lowest scaled score and 900 represents a perfect score. In cases where the scaling procedure results in a raw score being converted to a score of less than 100, a scaled score of 100 is assigned. In addition, the PAM exam pass-fail cutoff score is scaled so that it always equals 300.
Part III CSE: Many Thanks to Dr. Cindy Ahern, Veteran of the NBEO Clinical Exam

In addition to practicing optometry in Urbana, Ohio, Dr. Cindy Ahern spent part of the last 20 years serving the profession of optometry through participation in various Part III Clinical Skills Exam (CSE) capacities. Since 1996, she was called upon to assist with the CSE on 40 occasions through the years, throughout the eastern part of the USA, when the Part III CSE was given at the individual schools and colleges of optometry. At the various multiple-site CSE events, Dr. Ahern often filled leadership roles and always received excellent reviews from her Chief Examiners. She currently works with the NCCTO as a Part III CSE Station 3 Remote Examiner.

Dr. Ahern has been on the Part III CSE Exam Development Committee and/or Council since 2009. During the transition between the multi-site clinical exam, administered at the educational institutions, and the single-site exam, given at the NCCTO in Charlotte, North Carolina, the Part III Committee and Council merged into one body. Dr. Ahern was actively involved with the development of the new testing facility.

Dr. Ahern’s committee term expired at the end of the Part III CSE Committee meeting in April 2016. Dr. Terry presented her with a plaque to commemorate her service to the NBEO. The National Board greatly appreciates Dr. Ahern’s many years of expertise and participation, in the distant past as a CSE Examiner; in the recent past as a CSE Committee/Council member; and currently, as a Remote Examiner.

Part III CSE: Results Summary for the 2015-2016 Clinical Skills Testing Year

The 2015-2016 Part III Clinical Skills Exam score summary will be ready for release and distribution in late September or early October 2016. A score graph with explanatory details will be included in the Fall 2016 TestPoints.

OSLE: Invitation to State Optometry Boards to Administer Law Exams via NBEO

Some state optometry boards require their optometry licensure applicants to take a state optometry law examination that covers the statutes, rules, and regulations that govern the practice of optometry in the state in which licensure is sought. Since January 2010, the National Board has offered the Online State Law Exam (OSLE) program to assist state boards by administering their optometry jurisprudence exams in one of three online versions available on the NBEO website.

OSLE information on the NBEO website is divided into three sections:

- General OSLE information
- Three distinct OSLE formats:
  - Remote, open-book
  - In-house at NCCTO, open-book
  - In-house at NCCTO, closed-book and proctored
- Two different methods used for Online State Law Exam score reporting:
  - Through individual state boards
  - From the NBEO website

State boards interested in becoming an OSLE state may drop NBEO a line at nbeo@optometry.org. There is no cost to any state board for this service and candidate fees are nominal.
Advanced Competence in Medical Optometry (ACMO) 
June 2016 Exam Administration

The ACMO exam was administered on June 2, 2016. The examination consisted of 40 simulated patient cases associated with 160 stand-alone multiple-choice items. The exam is given during one 3.5-hour session.

Following careful analysis of the exam results, the total number of scored items on the June 2016 exam was 159 items.

A total of 26 candidates took the June 2016 test. Of these 26 candidates, 26 (100%) were examinees taking the test for the first time; 23 (88.5%) passed the examination.

The scaled score range for the ACMO exam is based on a 0-99 scale, where zero represents the lowest scaled score and 99 represents a perfect score. The exam pass-fail cutoff score is scaled so that it always equals 75, which is the lowest passing score.

The graph above presents the distribution of scaled scores for the June 2016 ACMO exam, in 5-point increments. The distribution shows that a total of 23 candidates earned a passing scaled score of 75 to 94, while 3 examinees earned a scaled score of 70 to 74. A total of 2 candidates achieved a score in the scoring interval of 90-94, the highest interval attained among the 2016 ACMO candidates. The peak scoring range was in the 80-84 range, in which 10 candidates scored.
**CPDO self-assessment specifications**

- Next test date is September 23, 2016; registration is open until September 21, 2016
- Fee is $500
- CPDO self-assessment exam consists of:
  - 20 patient cases (with 3-6 items each) = 80 points
  - 40 regular, individual solo items = 40 points
  - 20 minicases (each with 2 items) = 40 points
  - 160 points total
- Candidate population is licensed optometric practitioners
- CPDO is a computer-based testing (CBT) examination given at Pearson VUE test centers within the United States; total Pearson VUE seat time is 4 hours:
  - 5 minutes for NDA/CA (Non-Disclosure Agreement/Candidate Agreement)
  - 25 minutes for Pearson VUE CPDO exam tutorial
  - 3.5 hours for CPDO examination
  - Examinees who already are familiar with the interactive tutorial may go straight from the NDA/CA to the exam
- Exam material is drawn from these 9 disease conditions:
  - Lids - Lashes - Lacrimal System - Ocular Adnexa - Orbit
  - Conjunctiva - Cornea - Refractive Surgery
  - Lens - Cataract - IOL - Pre-Operative and Post-Operative Care
  - Episcera - Sclera - Anterior Uvea
  - Vitreous - Retina - Choroid
  - Optic Nerve - Neuro-Ophthalmic Pathways
  - Glaucoma
  - Emergencies - Trauma
  - Systemic Health

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**Did You Know ... ???</p>

- ... that Part III CSE candidates are required to bring a clean white lab coat with them when they present at the NCCTO to take their clinical skills exam? This requirement is necessary to render a professional appearance during testing.

- ... that it is a good idea for first-year optometry students to create an NBEO profile/account before or during the early days of their first professional year of optometry school? Students may sign up by clicking on www.optometry.org/register.

- ... that regarding the National Board Part I, II, or III exam, it is not necessary to delay registering for the next exam until scores are released from the previous exam administration? However, once registered for any NBEO exam, candidates who wish to withdraw their registration must follow the withdrawal procedure that is posted on the NBEO website. This policy describes the timing limitation associated with withdrawals as well as the required withdrawal fee. This information can be viewed by clicking on the 'EXAM INFORMATION' tab and then selecting 'WITHDRAWALS.'

- ... that all scoreable Part III CSE items can and should be reviewed in advance of the exam? While it is advisable for all Part III CSE candidates to become closely familiar with all of the Part III testing information on the NBEO website, it is especially important for non-targeted candidates who may have been out of school for any length of time. It has been found that the longer the time interval between the initial acquisition of clinical skills and the ultimate testing of these clinical skills, the more short cuts to maximize efficiency most likely will have been adopted. As short cuts develop, the further the procedural skills stray from the most classic basic skills that are assessed during the Part III exam. To circumvent scoring problems during the exam, non-targeted candidates can best prepare for the CSE by carefully reviewing the test instructions available on the NBEO website (www.optometry.org).
## General Information

### NBEO Board of Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>William B. Rafferty, OD</td>
<td>President</td>
<td>Winston-Salem, NC</td>
</tr>
<tr>
<td>Jill R. Martinson-Redekopp, OD</td>
<td>Vice-President</td>
<td>Minot, ND</td>
</tr>
<tr>
<td>Elizabeth Hoppe, OD, MPH, DrPH</td>
<td>Secretary-Treasurer</td>
<td>Pomona, CA</td>
</tr>
<tr>
<td>Melvin D. Shipp, OD, MPH, DrPH</td>
<td>Immediate Past President</td>
<td>Goodyear, AZ</td>
</tr>
</tbody>
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### NBEO Chief Executive Officer

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Lewis N. Reich, OD, PhD</td>
<td>Member</td>
<td>Memphis, TN</td>
</tr>
<tr>
<td>Alan J. King, OD</td>
<td>Member</td>
<td>Dickinson, ND</td>
</tr>
<tr>
<td>Jerry A. Richt, OD</td>
<td>Member</td>
<td>Cleveland, TN</td>
</tr>
<tr>
<td>Jack E. Terry, MS, OD, PhD</td>
<td></td>
<td>Fort Mill, SC</td>
</tr>
</tbody>
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### Contact Information

National Board of Examiners in Optometry
200 South College Street, Suite 2010
Charlotte, NC 28202

General email: nbeo@optometry.org
Part III email: nccto@optometry.org
Phone: 704.332.9565
Toll-Free: 800.969.3926
Fax: 704.332.9568

Website: [www.optometry.org](http://www.optometry.org)

### Additional Information

Summer 2016 *TestPoints*®

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### 2016 National Board Exam Schedule

<table>
<thead>
<tr>
<th>Exam</th>
<th>2016 Exam Deadline</th>
<th>Test Date</th>
<th>Registration Deadline</th>
<th>Late Registration</th>
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<tbody>
<tr>
<td>Part I ABS</td>
<td>N/A</td>
<td>August 2 - 3</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Part III CSE / ISE</td>
<td>N/A</td>
<td>Regular, through April 30</td>
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<td>Special, through July 31</td>
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<td>CPDO</td>
<td>September 23</td>
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<tr>
<td>Part II PAM / TMOD</td>
<td>December 6 or 8</td>
<td>September 6</td>
<td>September 6</td>
<td>September 20</td>
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