

ASO Website ELE Study Guide

ELE DESCRIPTION

Experience Level Examinations (ELE) are a requirement for apprentices and associates enrolled in the Education Program of the American Society of Ocularists (ASO). The format for ELE 1, 2 and 3 consists of 50 multiple choice questions (MCQ) related to knowledge and experience expected after completion of one, two, and three years of experience and are given at the annual and midyear meetings of the ASO.

Upon successful completion of ELE 1, 2, or 3, the next level ELE can be taken no sooner than one year. If one does not pass ELE, it can be taken at the next meeting (6 months) but if successfully completed will require the next level ELE be taken no sooner than one year.

ELE 4 is a practical, hands-on exam which requires you to: 1) fit, fabricate and deliver a custom prosthesis; 2) take specified color photographs of this patient/case; 3) make a mold of the finished prosthesis and fabricate a clear duplicate of the final prosthesis shape; and 4) supply certain written information about this case. See the end of this document for full details.

ELE ELIGIBILITY

Eligibility requirements for ELE 1, 2, 3 and 4 are as follows:

- ELE 1: Completion of 2,000 hours of experience
- ELE 2: Completion of 4,000 hours of experience
- ELE 3: Completion of 6,000 hours of experience
- ELE 4: Completion of ELE 3

Hours of experience will be based on when the apprentice/associate enrolls in the ASO Education program and shall be verified by the ASO Membership Committee and the ASO Education Committee.

KNOWLEDGE AND EXPERIENCE EXPECTED FOR ELE 1

ELE 1 will test basic knowledge of the following subjects: History, Terminology, Anatomy/Physiology, Etiology/Pathology, Surgical Procedures/Implants, Office/Lab Hygiene, Lab Materials, Lab Safety, and ASO Bylaws and Rules.

ELE 1 will test for experience with the following subjects: Dental Stone Investments, Polishing, and Polymerization.

KNOWLEDGE AND EXPERIENCE EXPECTED FOR ELE 2

ELE 2 will test for intermediate knowledge and experience of the subjects listed for ELE 1 and shall also include the following subjects: Patient Evaluation, Painting and Fabrication

KNOWLEDGE AND EXPERIENCE EXPECTED FOR ELE 3

ELE 3 will test for advanced knowledge and experience of the subjects listed for ELE 1 and 2 and shall also include the following subjects: Fitting prosthetic eyes and scleral shells

The test format for ELE 3 will include MCQs based on photographs, illustrations, or diagrams of ocularist related subjects.

RESOURCE MATERIALS FOR STUDY FOR ELE 1

Resource materials to study for ELE 1 shall include the following list: Medical Books and/or websites containing Anatomy and Physiology of the Eye and Orbit; Medical Books and/or web sites containing diseases and treatments of the eye, orbit, and eyelids; Medical Dictionary in book or online format; ASO Journal Articles; Course Workbook descriptions given at ASO meetings; and ASO Publications including ASO Rules and Bylaws and Standard Operating Procedures.

The lists of suggested reading materials that must be purchased are often available in earlier editions or versions with reduced prices. Similar books can be substituted. The web site addresses are accessible without cost. The list of books, publications and web site addresses include:

BOOKS/PUBLICATIONS

Ocular Anatomy and Physiology, 2nd Edition; Lens, Meneth, Ledford; SLACK Books, Helio, 2008
A very good basic and current introduction to orbital anatomy and physiology

Vaughan & Asbury's General Ophthalmology. 18th Edition (LANGE Clinical Medicine), 2011
A more advanced and comprehensive book on the field of ophthalmology
Available in paperback and Kindle Versions

Taber's Cyclopedic Medical Dictionary, 21st Edition, F. A. Davis Co.
Available in Hardbound and Online Web Access Only (1 year subscription)
Other medical dictionaries can be substituted. Look for Greek and Latin origins

Bylaws and Rules of the American Society of Ocularists, current amended edition

ASO JOURNAL ARTICLES

Modified Impression Method of Artificial Eye Fitting, Lee Allen, F.A.S.O., B.C.O., and Howard F. Webster, 1992

This article was originally published in the American Journal of Ophthalmology listed as:
Allen L, Webster H. Modified impression method of artificial eye fitting Am J. Ophthalmol 1969; 67: 189-217

WEB SITE ADDRESSES

<http://www.aoa.org/x17728.xml>

There are two power point presentations on this web site address titled "Terminology" and "Anatomy: Order, Extraocular Muscles, External Structures". To view the presentations, click on the "Start the course" for each subject. They are both very good introductions to Ophthalmic Terminology and Orbital Anatomy. The courses are presented by the American Optometric Association's Paraoptometric Skill Builder – Intermediate Level Education.

<http://emedicine.medscape.com>

This web site has a section on anatomy of the eye, eyelids and orbit. Click on the Medicine tab, then the Anatomy Tab and then the tabs for Eye Globe Anatomy, Eyelid Anatomy, and Orbit Anatomy. Numerous subsections to click on.

<http://www.nursingassistanteducation.com/site/html/courselist/php>

This web site address has a list of courses presented by the Nursing Assistant Education organization. The "Medical Terminology" course presents this subject covering all of medicine with some references to ophthalmology. If you want to expand your knowledge of medical terminology, this is a good resource.

<http://www.aao.org/yo/newsletter/201103/article02.cfm>

This web site address presents ophthalmic abbreviations.

ASO COURSE WORKBOOK MATERIAL

The following list of prefixes is from Course #610 Nomenclature for the Anophthalmic Socket, William A. Danz, BCO, Atlanta, 2008

PREFIX	MEANING	EXAMPLE OF USE
ab-	from, away from	abduction
apo	"	apoplexy
de-	"	dehydration
ad-	to; near; toward	adduction
ambi-	both	ambidextrous
amphi-	on both sides	amphitheater
ana-	up, apart, across, over	anatomy
ante-	before	anterior
pre-	"	pretarsal
pro-	"	proptosis
anti-	against	antibiotic
contra-	"	contraindicated
counter	"	counterbalance

cata-	down	catalyst
circum-	around	circumocular
peri-	"	periosteum
co-	with, together	copolymer
com-	"	compression
con-	"	congenital
sym-	"	symblepharon
syn-	"	synthetic
dia-	through	diathermy
per-	"	permable
di-	apart, from	divergence
dis	"	discoloration
e-	out (from)	enucleate
ec-	"	ecblepharon
ex-	"	excision
ect-	outside	ectocornea
exo-	"	exophoria
extra-	"	extraocular
eso-	inward	esotropia
en -	in	enophthalmic
in-	"	incision
end-	within	endoscopy
intra-	"	intraocular
infra-	under	infraorbital
hypo-	"	hypotropia
sub-	"	subperiosteal
para-	beside	paranasal
post-	after	postoperative
retro-	backward	retrobulbar
super-	above	superciliary
supra-	above	supraorbital
hyper-	excessive	hypertropia
meta	change	matastasis
epi-	upon	epicanthus
ultra-	beyond	ultrasonography
aniso-	unequal	anisocoria
hetero-	different	heterochromia
homo-	same	homologous
quasi-	resemblance	quasi-integrated
pseudo-	false	pseudoptosis
a-, an-	without	aphakic
an-	"	anophthalmic
im-	not	immobile
in-	"	invisible
mega-	great	megalocornea

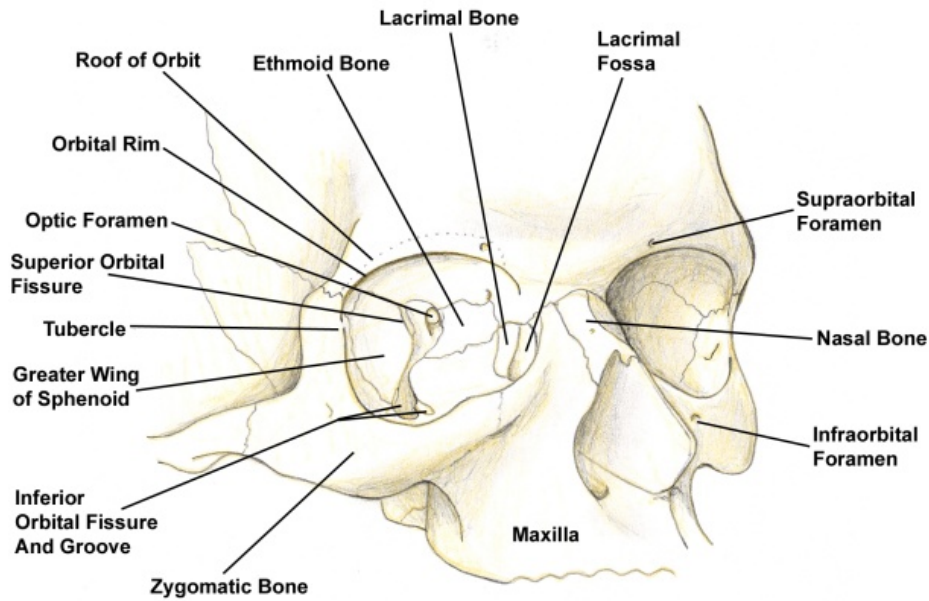
macro-	“	macroperforation
poly-	many	polymer
micro-	small	microphthalmia
mio-	less	miosis
chroma-	color	chromatophore
alb-, albumin-	white	albino
leuko, leuc-	“	leukoma
amaur-	dark	amaurosis
melano-	black	melanoma
polio-, ciner-	gray	poliosis
cirrh-, lutein	yellow	cirrhosis
xanth-	“	xanthelasma, xanthoma
chlor-, verdin	green	chlorophyll
glauc-	“	glaucoma
cyan-, indigo	blue	cyanosis
rube-	Red	rubeosis
erythr-	“	Erythema

POLYMERIZATION

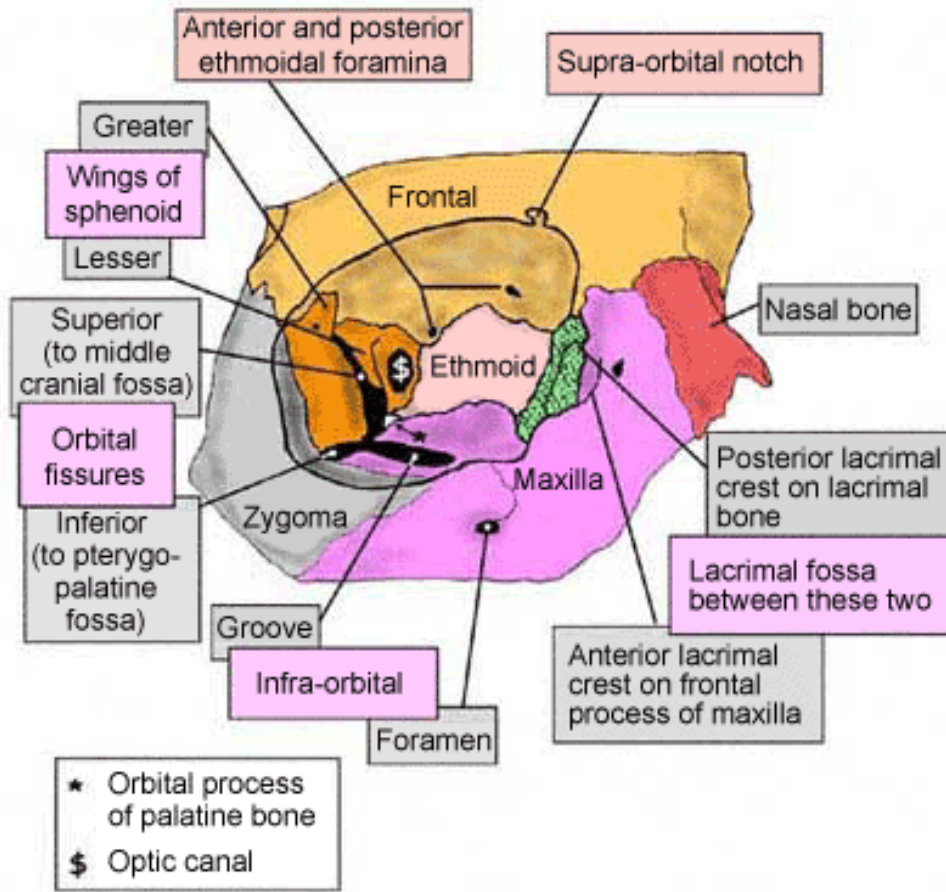
Course Workbook, ASO Annual Meeting, San Francisco, October 23-27, 2009

Course #744 Methylmethacrylate Polymerization Methods by Kevin Kelley, BCO, FASO, BADO presents good information on PMMA polymerization and different techniques used by ocularists.

BONY ORBITAL ANATOMY



Bony orbit, oblique view.



RESOURCE MATERIAL FOR STUDY FOR ELE 2

In addition to the study materials listed for ELE 1, emphasis will be placed on patient evaluation, painting and fabrication.

FABRICATION

Course Workbook, ASO Fall Meeting, Orlando, Florida, October 21-25, 2011

Course # 771 Evaluation of the Prosthesis (Fabrication) by Kurt V. Jahrling, BCO, BADO
This course provides a thorough presentation of the sequential steps in the fabrication of the ocular prosthesis in the ocularist's lab.

RESOURCE MATERIAL FOR STUDY FOR ELE 3

In addition to study materials listed for ELE 1 and ELE 2, emphasis will be placed on fitting of prosthetic eyes and scleral shells.

FITTING OF PROSTHETIC EYES

Modified Impression Method of Artificial Eye Fitting, Lee Allen, F.A.S.O., B.C.O., and Howard F. Webster, 1992

This article was originally published in the American Journal of Ophthalmology listed as:
Allen L, Webster H. Modified impression method of artificial eye fitting Am J. Ophthalmol 1969; 67: 189-217

GENERAL INFORMATION AND INSTRUCTIONS FOR ELE 4

A final requirement to become a Diplomate of the American Society of Ocularists is to receive a passing grade on the 4th Experience Level Exam (ELE). The 4th ELE is a practical, hands-on exam which requires you to: 1) fit, fabricate and deliver a custom prosthesis; 2) take specified color photographs of this patient/case; 3) make a mold of the finished prosthesis and fabricate a clear duplicate of the final prosthesis shape; and 4) supply certain written information about this case. The making of this prosthesis is to be done in your own office, for one of your patients, chosen by you. The patient you choose must be at least 18 years old. The prosthesis can be of any type; i.e., conventional, scleral shell, etc., and can be the first prosthesis made for this patient or a replacement of an existing prosthesis. The patient must wear only one prosthesis and cannot be a relative or coworker.

The case you present will be judged on a pass-fail basis by three (3) members of the Education Committee. A passing grade by at least two of the three judges is necessary to pass the 4th ELE. The difficulty of the case (i.e., special fitting problems, complex iris colors, etc.) will be considered by the judges when grading. Conversely, more will be expected by the judges of a simple or routine case, so choosing a patient whose fitting and iris/sclera duplication is relatively simple, for example, will not provide an advantage to you. You will be judged on the overall quality of your work, as demonstrated by the case photographs presented, the quality of the polished clear prosthesis duplicate and stone mold, and the information received from the patient interview and questionnaire.

All test material information mailed to you must be received by the test administrator before the Committee will grade your exam. All photographs must be taken only by you and submitted as specified by the photo guide. The photographs must be glossy prints with no border, of proper size (3 ½" x 5"), position, color balance, and clear and in focus. You will be required to make at least one copy of each completed form and to maintain the negatives of the photographs presented in the test kit in the unlikely event that these items are lost. All test material and photos will remain in the property of the American Society of Ocularists.

The 4th Level ELE will be available for you to take immediately after you pass the 3rd Level ELE. You must request to take the 4th Level ELE by contacting the Education Committee (exam administrator) by phone or mail. After you notify the Committee of your intent to take the exam, you will be given a "Patient Consent Form" to be signed by your patient participating in the exam. This form is to be mailed to the Education Committee person in charge of administering the 4th Level ELE. When the consent form is received, the 4th Level ELE administrator (a member of the Education Committee) will contact you by phone and establish a date to mail the 4th Level ELE exam kit to you. It is suggested that you schedule the participating patient for the exam time to begin 14-21 days after the consent form is signed and mailed. The exam kit will be mailed with a return receipt requested. You will have 30 days to complete the exam. All exam kit material must be postmarked within the required 30 days and mailed to the exam administrator with a return receipt required. If the exam kit is not postmarked within the allotted time, you will not receive credit and you will be required to wait an additional 6 months until retaking the exam. If you cannot complete the exam in time due to illness or other valid reason, you must notify the Exam Administrator immediately by phone. If you must retake the exam for any reason, you will be required to obtain a new patient participant.

The 4th Level ELE is your exam and to be done solely by you. No help, aid, advice or any form of coaching by anyone else is allowed. If it is determined by the Committee that some form of aid, no matter how trivial, was provided to you to complete the exam, your exam will not be graded, you will not receive credit and you will be required to wait at least 6 months until you can retake the exam.

The results of the exam will be available at the next ASO Conference Meeting. The examination is administered by Kevin V. Kelley, BCO, ASO Education Committee, 4th Level ELE Administrator.