Ophthalmology Postgraduate Training in Malaysia

GUIDE FOR APPLICANTS VERSION 1, 2022

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Preface

What is this document?

This document is a guide for those applying to enter Postgraduate training in Ophthalmology. It contains information on the entry requirements for the specialty training programme, the selection process and what the training entails. It is an extract from the National Postgraduate Curriculum for Ophthalmology, and provides key summaries about the training, structure, syllabus and assessments.

The National Ophthalmology Postgraduate Curriculum

The National Postgraduate Medical Curriculum (NPMC) for Ophthalmology, is the single curriculum for postgraduate training programme in Ophthalmology in Malaysia. It is the culmination of a collaboration between the Malaysian Universities Conjoint Committee of Ophthalmology (MUCCO), Ministry of Higher Education (MOHE), and Ministry of Health Malaysia (MOH), and provides a structured and unified curriculum for the training of Ophthalmology specialists throughout the country aligned with the national strategy for healthcare. Candidates have the option to train for the Master of Ophthalmology Degree at a university (University Pathway), or through the Ministry of Health, (MOH or Parallel Pathway).

This curriculum provides a unified and structured standard for the postgraduate training of Ophthalmology specialists throughout Malaysia with the aim of delivering high quality, effective and safe patient care in the secondary and tertiary settings. The training programme has been designed to facilitate the attainment of knowledge, clinical skills, professional values and behaviours that are required to practice with a holistic approach to medicine. It is intended to ensure that consistent and high standards are met so as to produce ophthalmologists who are highly knowledgeable, practice good ethics and provide high standards of clinical practice.

The writers

The Ophthalmology curriculum was written by a committee which included academicians and senior consultants from the respective Universities, Ministry of Health and College of Ophthalmology. The core team of writers are acknowledged below.

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Introduction

Purpose of this guide

The purpose of this guide is to inform prospective applicants wishing to undertake a postgraduate qualification in Ophthalmology. It summarises the key aspects of the Ophthalmology curriculum and provides a guide as to how to prepare and proceed with the application.

What is the Ophthalmology Specialty?

Ophthalmology is the branch of medicine that deals with the diagnosis and medical and surgical treatment of all conditions and diseases related to the eye and orbit.

Size of the Ophthalmology Specialty

There are at present 739 (June 2021) NSR registered ophthalmologists in Malaysia, and approximately 185 trainees, at currently four universities that award the postgraduate degree in Ophthalmology. The training program is carried both on and off-campus and there are 22 accredited Ministry of Health hospitals involved in the training. Training in Ophthalmology is overseen at present by the Malaysian Universities Conjoint Committee for Ophthalmology (MUCCO), with approximately 130 accredited trainers from the Ministry of Health (MOH) and Ministry of Higher Education (MOHE). (Refer to MUCCO website for details of the centres).

Unique features of the Ophthalmology Specialty

Ophthalmology is one of the few surgical specialties which combines clinical medicine and (micro)surgery. It is a highly specialised and delicate surgical field which requires a high degree of microsurgical skill. Every ophthalmic surgeon is required to have excellent hand-motor coordination, normal best corrected vision in both eyes and normal stereopsis. In Malaysia, potential trainees are required to undergo vision and stereopsis tests as compulsory prerequisites before being considered for a place on the training programme.

The field of ophthalmology has a high reliance on advanced medical technology ranging from high resolution diagnostic imaging tools to cutting-edge laser-assisted surgical equipment. The technology is constantly improving and has created many breakthroughs in the past decade, making ophthalmology one of the most exciting and attractive medical or surgical specialties. It has become one of the most popular and highly competitive specialties around the world, and in Malaysia, the application for entry into the training programme has more than tripled in the past 10 years.

Why choose the Ophthalmology Specialty as a career?

In Ophthalmology the practitioner is both a physician and a surgeon, providing the full spectrum of comprehensive ophthalmic care to the patient with a high level of job satisfaction. For example, cataract surgery is one of the most performed surgery in the world, and the most successful. The visual improvement seen in patients is rapid and deeply satisfying to the surgeon.

The advanced technology used in ophthalmic medicine is constantly evolving and creating exciting medical breakthroughs, and shows great potential for further development and advancement in eye research and visual rehabilitation.

1. The Ophthalmology Specialty Programme Pathways

Ophthalmology training in Malaysia is provided through the Masters Degree Programme conducted by the respective universities, and also through the Parallel Pathway programme conducted by the Ministry of Health (MOH).

The MOH Ophthalmology Parallel Pathway was established in 2018 to meet the growing need for competent ophthalmologists as the number of postgraduate training places in local universities are limited. It recognises the Royal College of Ophthalmologists (UK) examination as the alternative pathway.

The curriculum and training activities for both pathways are largely similar. The following diagram summarises and compares the criteria for each pathway.

CRITERIA	UNIVERSITY PATHWAY		PARALLEL PATHWAY		
Pre-requisite	Medical Specialist Pre-Entrance Examination (MedEx)		Medical Specialist Pre-Entrance Examination (MedEx) AND Part I & Refraction certificate (FRCOphth, London)		
Duration	4 to 7 year	S	4 to 7 ye	ears	
Phase 1	Year 1	Clinical posting Basic Ocular Science Syllabus	-	*Clinical posting	
		Part I exam	_	**Part II exam (FRCOphth, London)	
Phase 2	Year 2	Clinical posting			
		Clinical posting	4 years		
	Year 3 Year 4	Part II exam			
Phase 3		Clinical posting Completion of research report		Completion of research report	
		Part III exam		CCST Evaluation	
Awardee	Respective	University	Academy of Medicine of Malaysia		
Degree	DrOph (UKM), MOphthal (UM), MMed (Ophthal) (USM)		Certifica Training	te of Completion Specialist (CCST)-Ophthalmology	
Gazettement Period	6 months		6 months		
National Specialist Registry (NSR) Registration	18 months		18 months		

*Clinical Posting (4-monthly rotation):

- 1. Glaucoma
- 2. General /Public Health Ophthalmology
- 3. Paediatric Ophthalmology
- 4. Cornea
- 5. Retina (Surgical/Medical)
- 6. Orbit and Oculoplasty

**Candidates in the Parallel Pathway must undergo 4 years of clinical training regardless of when they pass the Part 2 exam.

2. Entry Requirements

Essential criteria

Applicants are expected to meet the entry requirements for the programme which are divided into academic qualifications and professional experience. Before applying to enter specialist training all candidates should ensure that they meet **ALL** of the entry requirements which are detailed and available at <u>http://noted.org.my/</u> and <u>http://coamm.org.</u> my/. A summary is provided below:

Academic

Trainees applying for the Masters degree programme in a university require the following:

- Basic Medical Degree recognised by the Malaysian Medical Council (MMC)
- Qualifications for registration as a medical practitioner under the Malaysian Medical Act 1971 (Act 50)
- A pass in the Malaysian Pre-Entrance Examination (MedEx) in Ophthalmology
- A minimum of 1 year's relevant experience
- English language test (non-Malaysian)
 minimum scores: MUET (6), IELTS (6), TOEFL (650)

Trainees applying for the Parallel Pathway require the following:

- All the above requirements
- A Pass in Part 1 and refraction certificate of FRCOphth (UK)

Professional experience

It is desirable that trainees wishing to enter Ophthalmology training have had some experience working in an ophthalmology clinic.

Important:

Any falsification of documents (mandatory or desirable), will result in the application being rejected and the doctor being reported to the MMC.

Any adverse reports such as an investigation by the MMC must be declared to the Selection Committee.

Service record

The service record of trainees applying for specialist training places must include the following:

- Confirmation of details of service by employer. For example, MOH and MOHE
- Annual Performance Evaluation report with a minimum average of 85 marks over the last 3 years for MOH and MOHE candidates
- Satisfactory reports from two (2) relevant referees, at least one (1) of whom is an ophthalmologist
- No record of disciplinary action
- No previous or pending medicolegal / civil case against the candidate

Special requirement(s)

The unique demands of Ophthalmology require that trainees must have a best corrected vision of 6/6 in each eye and a normal stereopsis of at least 40 seconds of arc. This will be tested as part of the entry process.

Personal Qualities

Trainees in Ophthalmology are required to demonstrate and develop a set of personal qualities that are critical to the good practice of medicine. While not all are assessed at entry to the programme, these professional qualities need to be developed throughout the training and during professional career through feedback and reflection. These attributes include (but are not limited to):

• **Inquiring mind** – an Ophthalmologist should not simply accept issues at face value they must be open to other possibilities by questioning inconsistencies. Initial diagnoses may sometimes need revising as further information becomes evident.

- Critical thinking the appraisal and application of evidence-based medicine is central to the practice of Ophthalmology, as is the use of a scientific approach in conducting research and quality improvement.
- **Communication** excellent communication is a foundation of good practice. Effective communication establishes rapport and improves patient satisfaction and compliance. It also minimises complaints and reduces medicolegal risks.
- Motivation motivation and hard work are essential not only in clinical practice but also in learning through the identification of deficiencies and learning needs for individuals, groups and organisations. Trainees must be self-motivated to always improve delivery of care and towards service improvement.
- **Team work and collaboration** modern medicine demands a close working relationship across multiple specialities and disciplines so that the highest standards of care can be achieved.
- **Humility** being prepared to receive feedback enables learning to take place. Good feedback encourages positive behaviours while negative feedback, though sometimes hard to accept, enables trainees to identify inappropriate or unhelpful behaviour that may be corrected.
- Reflection reflection on events is a prerequisite of learning. Change can be made by managing situations differently and identifying skill deficiencies through reflective practice and self-awareness.
- Resilience and self-care caring for patients can be challenging. An Ophthalmologist will be faced with many factors sometimes beyond their control as well as demands at work. The ability to cope with the volume of work, interpersonal relationships and time constraints requires commitment.

Entry Essential Learning Activities (ELA)

Essential Learning Activities (ELAs), are clinical activities that prospective trainees should be able to perform in a trustworthy manner by the time they enter the postgraduate training in Ophthalmology. "An ELA is the identification and description of a clinical task in such a way that the trainee is fully aware of the knowledge, skills and attitudes (KSA), needed to complete the task, and the trainer is fully aware of what needs to be observed to deem the task is completed to a professional level (Frostick and Pitts 2017)".

Candidates must demonstrate a minimum level of clinical competency and the knowledge, skills and attitudes that they need when carrying out tasks and responsibilities. ELAs also serve as learning opportunities for trainees as they receive feedback regarding their performance for the activities they are tasked with.

Entry ELAs are professional activities which a trainee must be able to perform independently, competently and in a trustworthy manner by the time they enter the specialty training programme in Ophthalmology.

The Entry ELAs listed below must be completed before application for specialty training and documented evidence must be submitted with the application. Each ELA has to be assessed and endorsed by a specialist (Ophthalmologist or relevant specialist for the respective ELA). They may form the basis for interview questions or other assessments used as part of the selection process.

There are five Entry ELAs for Ophthalmology:

ELA 1	Ocular history taking
ELA 2	Measuring visual acuity in adults
ELA 3	Pupil examination
ELA 4	Fundoscopy
ELA 5	Taking consent for cataract surgery

The Entry ELAs are detailed in Appendices of this document. The following is an example of Entry ELA.

Entry ELAs

ELA-1				
Activity	Ocular history taking			
Description	Good history taking skills lead to a more focussed examination and will reduce irrelevant investigations before reaching a more accurate diagnosis.			
All items in the table below a	re examples, they do not constitute	an exhaustive list.		
Knowledge Know, Facts, Information	Skill <u>Do</u> , Practical, Psychomotor, Techniques	Attitudes + Values Feel, behaviours displaying underlying values or emotions		
Knowledge of common ocular problems	Communication skills Questioning Open/ Close/ Probing questions Good listening skills - good eye contact, correct recording of history, appropriate follow-up questions	Patience Conversing in a clear and polite manner Persistent in acquiring history in cases of difficult patients Empathy to patients		
	Example Behaviours			
Positive Things that should be done, correct techniques or practices, things a trainee might do right	Negative Things that should not be done, incorrect techniques or practices, things a trainee might do wrong	Negative Passive Things that may be forgotten or omitted that constitute incorrect or substandard care, things a trainee forgets to do		
Able to identify important and/ urgent symptoms	Confidentiality Insensitive approach (e.g., HIV / STD related questions)	Failure to identify symptoms of blinding and treatable eye condition Failure to identify premorbid visual status/, past ocular history Failure to ask questions related to past medical and surgical illnesses		
	Assessment / Evidence			
Work Performance Based As	ssessments, Log book, supervisor's	report		

3. Entry Process

Overview

Candidates should apply online either to the university of their choice (Private/overseas candidates), or through MOH, (MOH sponsored candidates). Shortlisted candidates are called for an interview, following which they are informed by MOH or respective universities of their success or otherwise.

MOH sponsored candidates

The timeline for the application into the Masters Degree programmes is advertised in mainstream newspapers in the latter half of each year. Online applications should be made to Bahagian Pengurusan Latihan MOH http:// ehlp.moh.gov.my/ within one month of the advertisement being posted.

Private / overseas candidates

Applications should be made directly to individual universities offering the masters programme through the respective website any time throughout the year. Applications may be made to multiple universities but only one offer can be accepted by the candidate. The process of entry and admission to the programme is subject to the individual university guidelines.

Application processing

All applications are screened by an appointed panel comprising of representatives from the MOH, (MOH sponsored candidates) and Universities (private/overseas candidates). Successful shortlisted candidates are informed of their interview arrangements by their sponsors or universities.

Interviews

Multiple mini-interviews (MMI) are conducted by the Malaysian Universities Conjoint Committee of Ophthalmology (MUCCO) at a selected venue. It comprises of 4 stations of 7 minutes each which evaluates the following:

- 1. Critical and Ethical Thinking (CET)
- 2. Communication Skills (CS)

- 3. Empathy (EM)
- 4. Interest in Ophthalmology

Candidates must go through ALL stations. Candidates are ranked according to a MUCCOapproved ranking system. The list of successful candidates will be made available online on the MOH website about 2 months prior to the start of the programme.

Private/ overseas candidates will attend a separate interview conducted by the respective universities.

For Hadiah Latihan Persekutuan (HLP) recipient, Bahagian Latihan MOH will issue a conditional offer letter to successful candidates. They are required to attend a briefing by the Training Division that will provide the details on the scholarship. This includes the conditions for postponement, extension, withdrawal from study, failure to complete the study, end of study and bond after study.

Candidates that agree to the terms and conditions must submit an acceptance form. An unconditional HLP offer letter will be issued to the trainee and a contract will be signed with MOH.

Induction Process

The university, hospital and department will each carry out their own orientation. In addition, there is also an orientation organised by MUCCO.

The university orientation

- Length: 1-2 days
- Administration: Student card issuance, access to library or resource centre, short tour around the medical campus

The hospital orientation

- Length: 1-2 days
- Administration: Hospital ID card issuance, access to IT, hospital rules and regulations

The department orientation

- Length 3-5 days
- Introduction/ rules and regulations of the masters programme
- Ophthalmology Postgraduate guidebooks are distributed to candidates
- Ophthalmology Specialty Training logbook is available online. Candidates are required to register at <u>www.noted.org.my</u>
- Clinical and surgical requirements
- Research requirements
- Assessment methods

MUCCO orientation

Length: half-day teleconference session

- Bioethics and professionalism, plagiarism, communication skills
- National Specialist Registry (NSR)
- MOH regulations

4. Syllabus

The syllabus defines what will be taught and learned throughout postgraduate training in Ophthalmology. It is an outline of the required subjects, knowledge and depth, competencies and skills that need to be achieved by the trainee during each phase of the programme. The syllabus helps to set the expectations for both trainer and trainee for each phase. The full syllabus detailing topics, knowledge, skills and personal development is provided in the main Ophthalmology Curriculum document.

Ophthalmology is a combined medical and surgical field. It involves microsurgery which requires good eye-hand coordination with excellent fine motor skills. It is a field that utilises advanced medical technology from high resolution diagnostic imaging tools to cutting edge laser assisted surgical equipment.

The programme duration is a minimum of 4 years and a maximum of 7 years, divided into three Phases as follows:

Phase I

The general objective for Phase I is for trainees to acquire knowledge in the basic principles of Ophthalmology, Optics and Refraction and the Basic Sciences and to apply them in clinical problem solving and decision-making process. They get involved in the management of patients under supervision. Trainees are also introduced to the surgical aspects of Ophthalmology training. The Part I examinations are held at the end of Year 1. Trainees must pass the Part I examination before proceeding to Phase II.

Phase II

The general objective for Phase II is to carry out training in the various ophthalmic subspecialties that are essential for the development of skills. Trainees will undergo rotations in the following subspecialties: Glaucoma, Cornea, Paediatric Ophthalmology and Strabismus, Orbit and Oculoplasty, Neuro-Ophthalmology, Uveitis and Medical Retina, and Surgical retina. They are expected to acquire the necessary knowledge, skills, and attitudes appropriate for the management of patients in these subspecialties. Trainees will also be posted to the medical unit for 2 months during which they are exposed to endocrinology and neurology. In addition, the writing of case reports and a research project should start in Phase II. Trainees must submit papers to journals and present at ophthalmology meetings.

Phase III

Phase III is focussed on trainees functioning as registrars managing patients as well as assisting the consultant/lecturer. They are also encouraged to teach the junior postgraduate students, take on more responsibilities and undergo an elective posting of their choice in a local institution or hospital with the consent of the head of department.

Trainees should develop their skills in the subspecialty of interest. All publications, logbooks and the research report should be completed by the end of Phase III.

Programme structure

Year	Phase	Discipline	Assessment
1	Phase I	Basic medical sciences Basic ocular sciences Basic clinical ophthalmology Optics and Refraction	Part I
2 3	Phase II	Clinical ophthalmology Research and Publications	Part II
4	Phase III	Advanced clinical ophthalmology Research and Publications	Final Assessment

The syllabus is divided into four (4) main sections:

- Basic Ocular Science
- Diseases and Conditions
- Surgeries and Procedures
- Research

Each section is further divided into various elements and some elements comprise of several modules.

This following diagram illustrates the main content and breakdown of the Ophthalmology syllabus:



5. Assessment Tools

Assessment is an essential part of training and reflects the activities that the trainee will perform as an Ophthalmologist. The assessments are tailored to provide a systematic and continuous evaluation of the trainee's progress and the achievement of learning outcomes and competencies.

The assessment strategy uses the following methods to assess learning:

- Formative assessments
- Summative assessments
- Audit and research (project)
- Portfolio and Annual review

Formative assessment

The objective of formative assessments is to monitor learning and provide on-going feedback. Formative assessments are carried out throughout the learning process and seek to determine how students are progressing through the required learning objective. It guides future learning, provides reassurance, and promotes reflection.

National Ophthalmology Training and Education Database (NOTeD)

The NOTeD is a web-based system developed primarily for the use of candidates training in the specialty of Ophthalmology in Malaysia. Candidates undergoing basic ophthalmology or sub-specialty training in Malaysia are required to register with NOTeD for the purpose of recording all of their training experience and the assessments by supervisors. Core components of NOTeD include:

- an electronic logbook (E-Logbook) (synchronised with the National Eye Database)
- analysis of surgical performance
- logging of ophthalmology activities
- recording of training milestones
- workplace based assessments as detailed below

Assessment Types

Each assessment type has a specific form to be filled in by both the trainee and assessor. These include:

- Ophthalmic Clinical Evaluation Exercise (OCEX) and ICO Rubrics, a tool designed to assess the ophthalmology resident's competence in patient care. It assesses clinical skills, attitudes and behaviours in a clinical care setting.
- **Case-based Discussions, (CbD)**, a comprehensive review of clinical cases(s) between an advanced trainee and an assessor. After the CbD, the assessor will provide feedback to help the trainee improve. A CbD includes; record keeping, history taking, clinical findings and interpretation, management plan, and follow-up and future planning
- Direct Observation of Procedural Skills, (DOPS), an evidence-based assessment used to guide the trainee's learning and competency. The trainee performs a procedure on a patient in the workplace, and their performance is observed by an experienced and knowledgeable trainer.
- Ophthalmology Surgical Competency Assessment Rubric, (OSCAR), a behavioural and skill-based rubric for assessors which allows them to objectively assess the trainee's competence in performing a specific procedure.
- Simplified Thematic Engagement of Professionalism Scale (STEPS). This is a tool to measure professionalism. STEPS uses a format that utilises multiple short encounter assessments and incorporate professionalism values. The formative component has 15 attributes that are categorised into personal, profession, patient and public. A 7-skills assessment rubric facilitates feedback.

Summary of formative assessment tools

Tool	Assessment	Minimum Requirement*	Timeline	Assessor
DOPS (Refractive)	Clinical refraction	3 DOPS for refraction	first 9 months of Phase 1	Qualified assessor including optometrists
OCEX	Short Case Long Case	6 Long OCEXs	first 18 months of Phase 2	Qualified assessor
DOPS	Intravitreal injection, Retinal PRP and Laser PI procedure	3 DOPS (one from each)	first 18 months of Phase 2	Qualified assessor
CbD	Case discussion	Completed 3 CbDs	first 9 months of Phase 3	Qualified assessor
OSCAR	ECCE and Phacoemulsification	20 OSCARs	Phase 1 until 3 months before end of Phase 3	Qualified assessor
STEPS	Professionalism and ethic	2 summative assessments	Phase 2 and 3	Qualified assessor

*Minimum requirements that meets expectation/ competent level

Clinical Competency Assessment (CCA)

This assessment serves to assess the performance of the trainees during their clinical rotation. Clinical rotations may comprise of:

- Glaucoma
- Surgical Retina
- Medical Retina & Uveitis
- Paediatric Ophthalmology
- Oculoplasty & Orbit
- Cornea
- Neuro-Ophthalmology
- Medical posting in endocrine/neurology

All trainees will undergo 4-monthly rotations in each/combination of these subspecialties. At the end of the rotation, trainees will undergo an assessment using the Clinical Competency Assessment (CCA) form.

Summative assessment

Summative assessments are formal examinations that evaluate the trainee's competence at the end of each phase. A summary of the three (3) Parts are shown below. It is mandatory to pass the assessment in order to advance to the next phase.

The Part I examination consist of 2 components:

Part I

The trainee will be eligible to sit for the Part I examination if they have:

- 1. Successfully completed Phase 1 of the training program
- 2. Completed 3 DOPS for refraction that meets the expectations for Phase 1 training

Subcomponent	Туре	No. of Questions	Subject	Time
Paper I (25%)	Multiple Choice Question (MCQ)	100 questions	Basic Ocular Sciences, Optics and Refraction	2 hours 30 min
Paper II (25%)	Multiple Choice Question (MCQ)	100 questions	Basic Ocular Sciences, Optics and Refraction	2 hours 30 min

Component A: Theory Component (50%)

Component B: Clinical Component (50%)

Subcomponent	Туре	No. of Questions	Subject	Time
Practical 1 (30%)	Objective structured Clinical and Practical Examination (OSCPE)	10 stations	Basic Ocular Sciences	50 min
	Objective structured Clinical	8 stations	Option and	
Practical 2 (20%)	and Practical Examination	(4 Optics,	Refraction	40 min
		4 Refraction)		

A candidate shall be deemed to pass the Part I examination if they have achieved 50% or more of the marks for each component. The Part I examination must be passed not later than 24 months from the date of initial registration

as a candidate. Failure will result in the candidate being terminated forthwith without notice except in special circumstances and on the recommendation of the senate of each university.

Part II

The trainee will be eligible to sit for the Part II examination if they have:

- 1. Successfully completed Phase 2 of the training program
- 2. Completed 6 OCEX that meets the expectations for Phase II training

3. Completed 3 DOPS that meets the expectations for Phase II training

- 4. Ethically approved research proposal
- 5. Proof of submission of 2 publications
- 6. Satisfactory STEPS

The part II examination consist of 3 components:

Component A: Theory Component (30%)

Subcomponent	Туре	No. of Questions	Subject	Time
Paper I (15%)	Multiple Choice Question (MCQ)	100 questions	Clinical Ophthalmology	2 hours 30 min
Paper II (15%)	Essay	20 questions	Clinical Ophthalmology	2 hours

Component B: Clinical Component (40%)

Subcomponent	Туре	No. of Questions	Subject	Time
Clinical	Extended- Objective structured clinical Examination (OSCE)	10 stations	Clinical Ophthalmology (9 stations) General Medicine & Neurology in relation to Ophthalmology (1 station)	10 min/ stations 1 hour 40 min

Component C: Viva Component (30%)

Subcomponent	Туре	No. of Questions	Subject	Time
			Clinical Ophthalmology	
			(4 stations)	14 min/
Viva-Voce	Multiple Mini-Viva	5 stations	General Medicine & Neurology in relation to Ophthalmology	stations 1 hour 20 min
			(1 station)	

The theory examination (Component A), will be held 1 month before the clinical and viva examination (Components B & C). Only candidates who pass Component A will be allowed to sit for Components B & C. A candidate shall be deemed to pass the Part II examination if they have achieved 50% or more of the marks for each component of the examination.

Parallel Pathway Program

Trainees can sit for Part 2 FRCOphth paper (A&B) at any time during the 4 years training period, preferably after 2 years of entering the training programme.

Part III

The trainee will be eligible to sit for the Part III examination if they have:

- 1. Successfully completed Phase 3 of the training programme
- 2. Submitted research report/dissertation
- 3. Achieve 20 cataract surgeries at OSCAR competent level
- 4. Completed 3 CbDs that meet the expectations for Phase 3 training
- Publications and/or case reports as determined by individual universities and OPTiC
- 6. Obtain 5 merit points from presentation in conferences
- 7. Satisfactory STEPS

*Merit points:

- Oral Presentation:
 - » National Conferences 2 points
 - » International Conferences 3 points
- Poster Presentation
 - » National Conferences 1 points
 - » International Conferences 2 points

The first draft of the research report / dissertation must be submitted to the department SIX (6) months prior to the Part III examination. The final submission of evidence of training activities must be carried at least THREE (3) months prior to Part III examination. These training activities are also required for the Parallel Pathway program.

The CCST consists of 3 components:

- 1. Logbook and Cataract Surgery Video (45 minutes)
- 2. Clinical Viva (45 minutes)
- 3. Research presentation (45 minutes)

The candidate will present their research report as a power point presentation, followed by a viva by an external and internal examiner.

No	Course Outcomes	Phase I		Phase II		Phase III	
		Formative	Summative	Formative	Summative	Formative	Summative
1	Basic medical science related to Ophthalmology		MTF, SBA,				
2	Basic Ocular Sciences		USUE				
3	Optics and refraction	DOPS	MTF, SBA, OSCE, 3DOPS (Refraction)				
4	Taking ophthalmology history				3 DOPS		
5	Performing ophthalmology examinations	OCEX	0005	OCEX, DOPS,	(Retinal laser, IVT, Laser PI)		
6	Arriving at differential diagnosis & investigations		OSCE	CbD	SBA, KFQ, Multiple Mini-		Publication
7	Performing surgical procedures	e-logbook OSCAR			Ext-OSCE	E-logbook, OSCAR	CbD/ 20 OSCARs
8	Managing patient					CBD	Publication
9	Critical appraisal of cases			CBD	Publication.	CBD	Publication,
10	Critical appraisal of literature				Approval, GCP e-superviso report		Dissertation, Presentation at meeting (merit point)
11	Research competence			e-supervisor report		e-supervisor report	
12	Demonstrate professionalism			STEPS	STEPS	STEPS	STEPS
13	Evidence for progression	e-supervisor report, CCA	3	e-supervisor report, CCA		e-supervisor report, CCA	

6. Appendices

Entry ELAs

ELA-1				
Activity	Ocular history taking			
Description	Good history taking skills lead to a more focussed examination and will reduce irrelevant investigations before reaching a more accurate diagnosis.			
All items in the table below are examples, they do not constitute an exhaustive list.				
Knowledge Know, Facts, Information	Skill <u>Do</u> , Practical, Psychomotor, Techniques	Attitudes + Values <u>Feel</u> , behaviours displaying underlying values or emotions		
Knowledge of common ocular problems	Communication skills Questioning Open/ Close/ Probing questions Good listening skills - good eye contact, correct recording of history, appropriate follow-up questions	Patience Conversing in a clear and polite manner Persistent in acquiring history in cases of difficult patients Empathy to patients		
Example Behaviours				
Positive Things that should be done, correct techniques or practices, things a trainee might do right_	Negative Things that should not be done, incorrect techniques or practices, things a trainee might do wrong	Negative Passive Things that may be forgotten or omitted that constitute incorrect or substandard care, things a trainee forgets to do		
Able to identify important and/ urgent symptoms	Confidentiality Insensitive approach (e.g., HIV / STD related questions)	Failure to identify symptoms of blinding and treatable eye condition Failure to identify premorbid visual status/, past ocular history Failure to ask questions related to past medical and surgical illnesses		
Assessment / Evidence				
Work Performance Based As	sessments Log book supervisor's	report		

ELA-2				
Activity	Measuring visual acuity in adults			
Description	The visual acuity test determines the smallest letters one can read on a standardized chart (Snellen chart)			
All items in the table below are	e examples, they do not constitut	te an exhaustive list.		
Knowledge Know, Facts, Information	Skill <u>Do,</u> Practical, Psychomotor, Techniques	Attitudes + Values <u>Feel</u> , behaviours displaying underlying values or emotions		
Definition of visual acuity Vision testing method in adults: Snellen, digital chart, logmar, ETDRS chart	Communication skills- able to explain to patients what is being tested and how to get the best of visual acuity Follows the technique protocol correctly	Patience Know the patient's status of literacy (to make sure the test is done correctly)		
Example Behaviours				
Positive Things that should be done, correct techniques or practices, things a trainee might do right	Negative Things that should not be done, incorrect techniques or practices, things a trainee might do wrong	Negative Passive Things that may be forgotten or omitted that constitute incorrect or substandard care, things a trainee forgets to do		
Testing one eye at one time. Utilises further technique beyond snellen chart. (CF, HM, PL) -able to record the visual acuity in the standard manner- 6/60, CF 1' or HM etc	Incorrect testing method i.e., using alphabet snellen in illiterate patient	Failure to adjust the patient's distance to the chart accordingly Fail to establish correct room illumination		
Assessment / Evidence				

FLA-3				
Activity	Pupil examination (direct/indirect/RAPD)			
Description	Fupiliexamination (unect/munect/mAFD)			
	Examination of the pupils and its response to bright light			
All items in the table below are examples, they do not constitute an exhaustive list.				
Knowledge Know, Facts, Information	Skill <u>Do</u> , Practical, Psychomotor, Techniques	Attitudes + Values <u>Feel</u> , behaviours displaying underlying values or emotions		
Pupillary light reflex pathway, both direct and consensual, its afferent and efferent component, what is the normal and abnormal changes in pupillary size and interpretation of the changes	Performs the pupil examination using the correct technique with proper instructions given to patients	Patience, diligence, observant, attentive		
Example Behaviours				
Positive Things that should be done, correct techniques or practices, things a trainee might do right	Negative Things that should not be done, incorrect techniques or practices, things a trainee might do wrong	Negative Passive Things that may be forgotten or omitted that constitute incorrect or substandard care, things a trainee forgets to do		
Allowing enough time to see pupillary response	Swinging the torch too fast, misinterpretation of findings, torch too dim	Failure to establish correct room illumination Failure to perform reverse RAPD when required		
Assessment / Evidence				

ELA-4				
Activity	Funduscopy examination			
Description	Visualization of the retina with an ophthalmoscope			
All items in the table below a	re examples, they do not consti	tute an exhaustive list.		
Knowledge Know, Facts, Information	Skill <u>Do</u> , Practical, Psychomotor, Techniques	Attitudes + Values <u>Feel</u> , behaviours displaying underlying values or emotions		
Retinal and optic disc anatomy Features of the ophthalmoscope	Technique: Perform funduscopy examination using the ophthalmoscope in the correct technique	Considerate of the patient's comfort while performing funduscopy		
Example Behaviours				
Positive Things that should be done, correct techniques or practices, things a trainee might do right	Negative Things that should not be done, incorrect techniques or practices, things a trainee might do wrong	Negative Passive Things that may be forgotten or omitted that constitute incorrect or substandard care, things a trainee forgets to do		
Description of correct retinal findings	Holding ophthalmoscope in the wrong hand, wrong eye, crossing the midline or wrong direction	Failure to instruct patient to look at distance Failure to look for good red reflex at the beginning Failurel to establish correct room illumination		
	Assessment / Evidence			
Work Performance Based Ass	essments, Log book, supervisor	's report		

ELA-5				
Activity	Taking consent for cataract surgery			
Description	A properly taken informed consent and advisement which includes treatment options and counseling about the indications, risks, benefits, and alternatives of cataract surgery.			
All items in the table below are	examples, they do not constitute	e an exhaustive list.		
Knowledge <u>Know</u> , Facts, Information	Skill <u>Do</u> , Practical, Psychomotor, Techniques	Attitudes + Values Feel, behaviours displaying underlying values or emotions		
Various anaesthetics to be administered together with their effects and side effects, details of the procedure, possible complications, post- operative management from patient perspective, after care actions and regimes	 Communication skills: using appropriate language clear explanation of technical aspects eye contact and body language to help patient relax time management, completing consent in timely manner 	Patience, empathy, establishing good rapport and addressing patients with appropriately respectful salutations in a polite manner		
	Example Behaviours			
Positive Things that should be done, correct techniques or	Negative Things that should not be done, incorrect techniques or	Negative Passive Things that may be forgotten or omitted that constitute		
practices, things a trainee might do right	practices, things a trainee might do wrong	incorrect or substandard care, things a trainee forgets to do		
Explains the procedure in detail	practices, things a trainee might do wrong Gives incorrect facts about the procedure	incorrect or substandard care, things a trainee forgets to do Failure to explain the various available lens		
Explains the procedure in detail Uses patient-friendly language	practices, things a trainee might do wrong Gives incorrect facts about the procedure Creates misleading expectations as to immediate vision	incorrect or substandard care, things a trainee forgets to do Failure to explain the various available lens Failure to recognise claustrophobia in patients		
Explains the procedure in detail Uses patient-friendly language	practices, things a trainee might do wrong Gives incorrect facts about the procedure Creates misleading expectations as to immediate vision improvement Rushes through consultation Talks down to the patient	incorrect or substandard care, things a trainee forgets to do Failure to explain the various available lens Failure to recognise claustrophobia in patients Missing out key complications and failure to explain the change of lens in cases of posterior capsular rupture		
Practices, things a trainee might do right Explains the procedure in detail Uses patient-friendly language	practices, things a trainee might do wrong Gives incorrect facts about the procedure Creates misleading expectations as to immediate vision improvement Rushes through consultation Talks down to the patient	incorrect or substandard care, things a trainee forgets to do Failure to explain the various available lens Failure to recognise claustrophobia in patients Missing out key complications and failure to explain the change of lens in cases of posterior capsular rupture Possibility of second surgery		
Practices, things a trainee might do right Explains the procedure in detail Uses patient-friendly language	practices, things a trainee might do wrong Gives incorrect facts about the procedure Creates misleading expectations as to immediate vision improvement Rushes through consultation Talks down to the patient Assessment / Evidence	incorrect or substandard care, things a trainee forgets to do Failure to explain the various available lens Failure to recognise claustrophobia in patients Missing out key complications and failure to explain the change of lens in cases of posterior capsular rupture Possibility of second surgery		

Glossary of Terms

CbD	Case-based Discussion
DOPS	Directly Observed Procedural Skills
ELA	Essential Learning Activities
IELTS	International English Language Testing System
MedEx	Medical Specialist Pre-Entrance Examination
MMC	Malaysian Medical Council
MOH	Ministry of Health
MOHE	Ministry of Higher Education
MUCCO	Malaysian Universities Conjoint Committee for Ophthalmology
NPMC	National Postgraduate Medical Curriculum
NSR	National Specialist Registry
OPTIC	MOH Ophthalmology Post Graduate Training Committee
OSCE	Objective Structured Clinical Examination
МОН	Ophthalmology Post Graduate Training Committee
TOEFL	Test of English as a Foreign Language
UK	United Kingdom
UM	Universiti Malaya
UKM	Universiti Kebangsaan Malaysia
USM	Universiti Sains Malaysia
WBA	Workplace-Based Assessment

Contact

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