



MALAYSIAN OPTICAL COUNCIL  
MINISTRY OF HEALTH MALAYSIA



# CANDIDATE HANDBOOK FOR

Accreditation of Prior Experiential Learning for  
Credit Award [ APEL (C) ] Assessment

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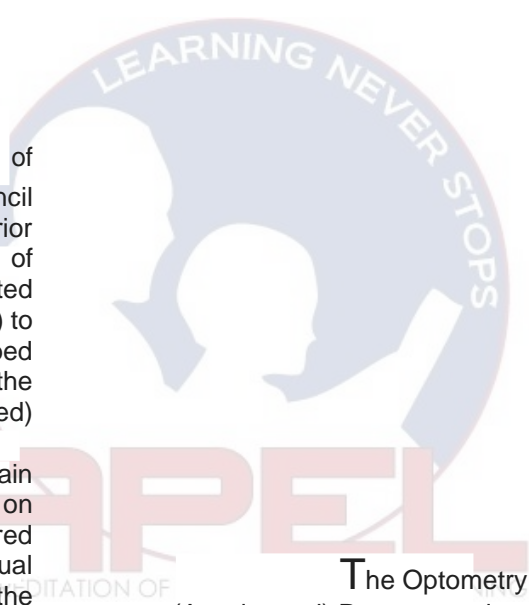
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# INTRODUCTION

**A**PEL (C) Assessment of The Malaysian Optical Council (MOC) is an assessment of prior learning (informal and non-formal) of an individual based on accumulated experiences (knowledge and skills) to obtain credit transfers of prescribed courses for admission to the Optometry (Accelerated) Programme.

Emphasis is given to APEL (C) main concept which is an assessment on the capabilities of a Registered Optician to apply individual experiential learning in achieving the course learning outcomes.

**A**PEL (C) assessment of MOC is open only to opticians registered with MOC as one of the entry requirements for the Optometry (Accelerated) Programme at Higher Education Institutions based on the requirements set by Higher Education Department, Ministry of Education Malaysia. This assessment is conducted to enable Registered Opticians to obtain a credit transfer of forty-two (42) to enroll in Optometry (Accelerated) Programme.



**T**he Optometry (Accelerated) Programme is a programme of Bachelor of Optometry which will be offered within a minimum of two years. This programme is specifically offered to Registered Opticians, which is approved by the Higher Education Department, Ministry of Education Malaysia (JPT) on 1st August 2016 with a reference number of JPT (A) 1000/016/018/45 Vol.4 (4). The programme offered has been approved by JPT with a validity period of ten (10) years (starting from the first year offered).

# OBJECTIVES

1. To accredit individual experiential learning through informal & non-formal learning
2. To enable the candidate to be given a credit transfer of 42 credit hours as a prerequisite for them to enroll in the Optometry (Accelerated) programme.
3. To reduce redundant learning for registered opticians.
4. Encourage admission of registered opticians to optometry degree programme.
5. To reduce cost and time to complete study.

## **General Policies :**

1. The Malaysian Optical Council recognizes the continuous education, knowledge and skills possessed by registered opticians in the matter of informal and non-formal learning. This is in line with the policy of the creation of APEL (C) by the Malaysian Qualifications Agency (MQA) which is a mechanism for recognizing learning based on past experience in the form of knowledge and skills acquired through informal and/or non-formal learning.
2. MOC through several discussions since 2012 have agreed to establish a pathway for registered opticians to upgrade themselves to become optometrists through learning without leaving their field of work called the Optometry (Accelerated) Programme. A series of discussions have been held between the MOC, the MQA and the Higher Education Department (JPT) on this matter until the JPT approves the program on August 1, 2016. As agreed by all parties, the programme will only be offered for a period of 10 + 5 years only.
3. The application for the APEL (C) MOC assessment is opened only to Opticians registered with the Malaysian Optical Council under the terms as below :

## REQUIREMENTS FOR MOC APEL (C) ASSESSMENT

REQUIREMENTS FOR MOC APEL (C) ASSESSMENT				
CATEGORY	Student Entry following Current Academic Qualification	Minimum Working Experience as Registered Optician	Bridging Course	APEL A Test
1	Diploma In Opticianry (MQF Level 4)	2 years *	Must undergo Bridging Course (6 months)	-
2	Diploma (MQF Level 4) or Bachelor Degree (MQF Level 6) in any field	30 years **	Must undergo Bridging Course (6 months)	-
3	Fellow British Dispensing Optician Certificate (FBDO) (MQF Level 3)	3 years *	Must undergo Bridging Course (6 months)	Must pass APEL A Test (Level 6)
4	Sijil Pelajaran Malaysia (SPM) with 3 credits in science subject	30 years **	Must undergo Bridging Course (6 months)	Must pass APEL A Test (Level 6)
5	No Academic Qualification	30 years **	Must undergo Bridging Course (6 months)	Must pass APEL A Test (Level 6)

\* minimum working experience as Registered Optician

\*\* minimum working experience as Optician as at 2021

4. This APEL (C) assessment is a prerequisite for admission to the Optometry (Accelerated) Programme (MQF level 6) offered by a Higher Education Provider (HEP) who has been fully accredited by MQA for the conventional Optometry undergraduate degree programme.

## BRIDGING COURSE

01

1. Enroll in any Higher Education providers that offer Optometry (Accelerated) Programme


02

2. Duration of study : minimum 6 months

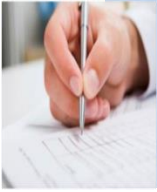
## APEL A TEST (LEVEL 6)

Applicant under category 3, 4 and 5 is required to undergo the test which can be applied through MQA.

Further information is available at MQA official Portal:  
<https://www2.mqa.gov.my/portalapela/>

 [apeladmin@mqa.gov.my](mailto:apeladmin@mqa.gov.my)

 03-86881900



# PROCEDURE FOR APEL (C) APPLICATION

1. Each applicant is required to fill in a self-assessment form (refer Appendix 1) for all subjects which will be given credit transfer (refer Appendix 2) through the APEL (C) assessment.
2. The self-assessment form will be evaluated by the MOC advisor whether the candidate is eligible or not to apply for the APEL (C) assessment.
3. If the candidate is eligible, he/she need to fill the application form (refer Appendix 3 or 4).
4. MOC will use the portfolio (refer Appendix IV & V) as the APEL (C) test mode for all sixteen courses.
5. MOC will conduct a briefing to all candidate on how to fill up the self-assessment form and portfolio.
6. All candidates need to complete the portfolio for recognition of prior learning based on the candidate's registration category either under section 18(1) for FBDO qualification and Diploma in Opticianry or 18(2)(a) in addition to those qualifications.
7. Notification will be made by the MOC secretariat either by mail/email/phone if the application is found incomplete or does not meet the stipulated conditions.

All related documents can be downloaded from the MOC official portal at the <https://moc.moh.gov.my>. If candidate has any inquiry, they may contact MOC APEL(C) advisor as below:

## Secretariat

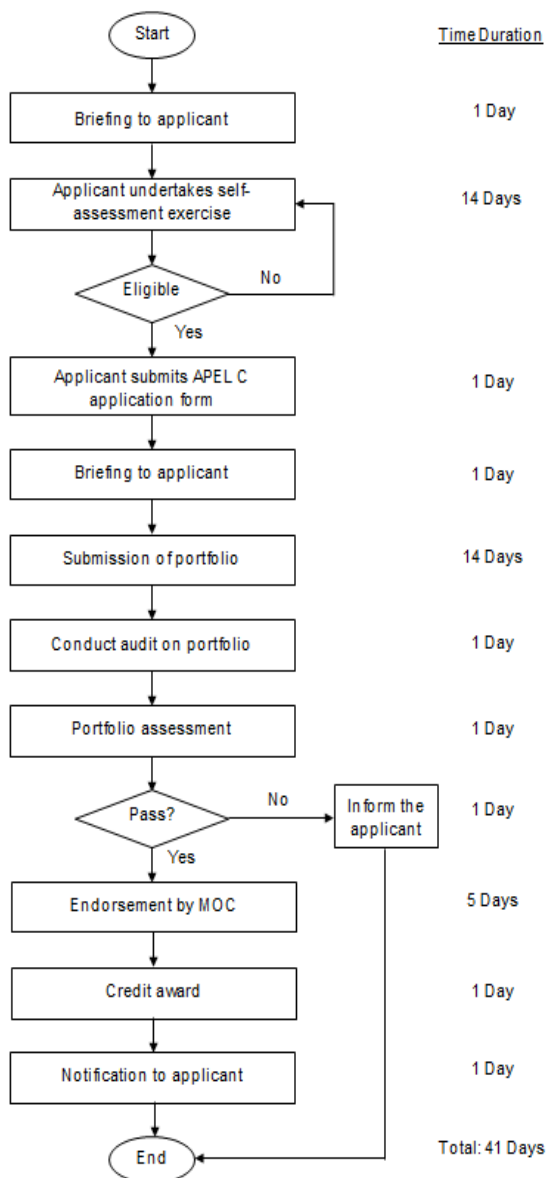
- ❖ Mrs. Sulastrey Binti Mohamed  
[sulastrey@moh.gov.my](mailto:sulastrey@moh.gov.my)  
03-88831281
- ❖ Mrs. Najihah Binti Muhammad Sharif  
[najihahsharif@moh.gov.my](mailto:najihahsharif@moh.gov.my)  
03-88831393
- ❖ Mrs. Suryani Binti Md. Sujairi  
[apelc.mom@gmail.com](mailto:apelc.mom@gmail.com)  
03-88906081



Below are the flow chart for APEL(C) assessment procedure for each application.

# IMPLEMENTATION

FLOW CHART: APEL (C) ASSESSMENT PROCEDURE



## **Award of Credits:**

1. The credit transfer is for the admission to the Optometry (Accelerated) programme only (MQF level 6).
2. These courses account for 30% (42 credits) of the total credit of the Optometry (Accelerated) programme.
3. Each candidates need to collect 42 credits based on experiential learning to pass the MOC APEL (C) assessment. The courses that are eligible for credits transfer are as in Appendix VI.
4. Credits award by APEL (C) is a form of credit transfer that does not involve grades. However, credit granted for this APEL (C) will be calculated for the purpose of the graduation and marked as CT (APEL) on the transcript.

## **Implementation Process:**

1. The implementation of the APEL (C) MOC assessment process is guided by the APEL (C) Guidelines to Good Practices: Accreditation of Prior Experiential Learning for Credit Award, MQA.
2. Registered opticians who are interested to further study in the Optometry (Accelerated) Programme at any HEP offering it must pass the MOC APEL (C) assessment. Candidates who pass the APEL (C) assessment will be given a certificate of approval for the purpose of entry into the programme.
3. All HEPs offering the Optometry (Accelerated) programme must ensure that only candidates who pass the MOC APEL (C) assessment are eligible to enter the programme.
4. Courses transferred by credit through APEL (C) will be marked as 'CT (APEL)' transcribed and excluded from CGPA. These credits contribute to the degree of credit offered.
5. Applicants who fail the APEL (C) MOC assessment are not eligible to enter the Optometry (Accelerated) programme.
6. The MOC will keep all complete records including applications, instruments, evidences and decision results.

## **APEL (C) ASSESSMENT**

Assessment for prior experiential learning shall include the process of comparing working experience to course learning outcome (CLO) for courses offered in the Optometry (Accelerated) Programme to the candidate.

APEL (C) assessment is done according to the needs of the courses/Optomtry (Accelerated) Programme through assessment of candidate's portfolio.

### **Portfolio :**

Candidate portfolio is an official document consist of evidence documenting prior experiential learning of the candidate and learning articulation acquired within certain period of time in the optometry field. The content of the candidate portfolio should consist of the proof of literal knowledge such as :

- Certificate of attendance for courses/seminars attended
- Employer confirmation letter
- Transcript for courses attended
- Logbook of cases seen throughout working life which has been verified by MOC APEL (C) Auditor

### **Result of APEL (C) :**

Candidate need to achieve at least 50% of assessment marks for each CLO in order to pass the APEL (C) assessment.

The official result for courses that pass APEL (C) application will be stated as the learning outcome in the candidate academic transcript.

# **A P P E N D I C E S**

# APPENDIX I: Self-Assessment Form

## APEL(C) SELF-ASSESSMENT FORM FOR LEARNERS

### PART A: PERSONAL PARTICULARS

Name	
Identity Card No.	
Name of programme	Bachelor of Science (Hons) Optometry
Course Code & Course Title	Occupational Vision
No of Credits of the Course	3

### PART B: SELF ASSESSMENT EXERCISE

Please tick (✓) whichever applicable

Course Learning Outcomes (CLO)	I have learned this through my former studies or working career and can provide paper evidence/ documents/certificates	I know most of this but I have no paper evidence	I am willing to complete a task/assignment or any form of relevant assessment to show I have learned this	I really need to take the module
CLO1 - Describe the visual demands in the work place or in special environments				
CLO2 - Explain the associated visual standards and occupational eye protection that they demand				
CLO3 - Provide advice to industry and commerce on visual ergonomics				

### PART C: REPORT SUBMISSION

Write and submit a minimum of 500-word report based on the headings below:

**Report title:** Elaborate your understanding on ergonomics concept for the vision and workplace and includes the principles underlying the setting and administration of visual standards, human factors engineering of the task and environment.

I confirm that all the details on this form are correct to the best of my knowledge. The submission of the report is also my own works.

Submitted by :

Date :

For office use only:

Received by :

Date :

**APPENDIX II:**

## Courses Eligible for APEL (C) Assessment

<b>NO.</b>	<b>COURSES</b>	<b>CREDITS</b>
1.	ANATOMY AND PHYSIOLOGY	4
2.	OCCUPATIONAL VISION	3
3.	PROFESSIONAL ISSUES	2
4.	ENTREPRENEURSHIP	3
5.	INDUSTRY EXPERIENCE I	2
6.	INDUSTRY EXPERIENCE II	2
7.	BUSINESS ETHICS	3
8.	CLINIC I	2
9.	CLINIC II	4
10.	CLINIC III	4
11.	CASE STUDIES I	1
12.	CASE STUDIES II	2
13.	OPTOMETRIC OPTICS I	4
14.	OPTOMETRIC OPTICS II	4
15.	OPHTHALMIC DISPENSING I	1
16.	OPHTHALMIC DISPENSING II	1
<b>TOTAL CREDITS :</b>		<b>42</b>

**APPENDIX III:**

Application Form for Registered Optician under section 18(1)

(Office use only): Registration under Section 18(1):  Diploma in Opticianry  FBDO

**APPLICATION FORM FOR APEL (C) ASSESSMENT REGISTERED OPTICIAN  
UNDER SECTION 18(1)**

<b>NAME (AS IN IC)</b>			
<b>CORRESPONDENCE ADDRESS</b>			
<b>IC NUMBER</b>			
<b>DATE OF BIRTH</b>			
<b>GENDER</b>	Male / Female		
<b>CONTACT NUMBERS</b>	<b>HOME:</b>	<b>OFFICE:</b>	<b>FAX:</b>
	<b>MOBILE:</b>	<b>E-MAIL:</b>	
<b>MOC FULL REGISTRATION NUMBER / CONTACT LENS REGISTRATION NUMBER</b>			
<b>DATE OF REGISTRATION</b>			
<b>CURRENT APC NUMBER</b>			
<b>HIGHEST QUALIFICATION</b>			

I acknowledged that I have been briefed and understood all aspects related to APEL(C) and has received the APEL(C) handbook. I understood and agreed with all the conditions imposed by MOC.

Applicant's signature : .....



# APPENDIX IV:

## Application Form for Registered Optician under section 18(2)(a)

(Office use only):  
 Registration under Section 18(2)(a):  Tertiary Qualification  
 SPM with 3 Credits  
 No Academic Qualification

**APPLICATION FORM FOR APEL (C) ASSESSMENT REGISTERED OPTICIAN  
 UNDER SECTION 18(2)(a)**

<b>NAME (AS IN IC)</b>			
<b>CORRESPONDENCE ADDRESS</b>			
<b>IC NUMBER</b>			
<b>DATE OF BIRTH</b>			
<b>GENDER</b>	Male / Female		
<b>CONTACT NUMBERS</b>	<b>HOME:</b>	<b>OFFICE:</b>	<b>FAX:</b>
	<b>MOBILE:</b>	<b>E-MAIL:</b>	
<b>MOC FULL REGISTRATION NUMBER / CONTACT LENS REGISTRATION NUMBER</b>			
<b>DATE OF REGISTRATION</b>			
<b>CURRENT APC NUMBER</b>			
<b>HIGHEST QUALIFICATION</b>			

I acknowledged that I have been briefed and understood all aspects related to APEL(C) and has received the APEL(C) handbook. I understand and agreed with all the conditions imposed by MOC.

Applicant's signature : .....

**APPENDIX V:**

Portfolio for recognition of prior learning for Registered Optician under section 18(1)

<b>Content</b>	<b>Page</b>
<b>Part 1 Personal Details</b>	<b>1</b>
<b>Part 2 Details Of Learning Acquired</b>	
<b>A) Formal Learning Certificated Learning</b>	<b>4</b>
<b>B) Non Formal Learning Core Continuing Education Activities Attended</b>	<b>6 - 8</b>
<b>C) Informal Learning Experiential Learning : Employment History</b>	<b>10 - 11</b>
<b>D) List Of Clinical Cases Seen Throughout Working Life</b>	
<b>1) Cases Of Myopia With/Without Astigmatism (55)</b>	<b>7 - 17</b>
<b>2) Cases Of Hyperopia With/Without Astigmatism (35)</b>	<b>18 - 31</b>
<b>3) Cases Of Presbyopia (60)</b>	<b>32 - 43</b>
<b>4) Cases With Ocular Abnormalities (10)</b>	<b>44 - 45</b>
<b>E) Dispensing</b>	
<b>1) Full Frame (50)</b>	<b>47 - 50</b>
<b>2) Semi Rimless (40)</b>	<b>51 - 53</b>
<b>3) Rimless (40)</b>	<b>54 - 56</b>
<b>F) Other Relevant Learning Skills / Activities</b>	<b>57</b>
<b>G) Language Skills</b>	<b>57</b>
<b>Part 3 : Referees</b>	<b>58</b>

**APPENDIX VI:**

Portfolio for recognition of prior learning for Registered Optician under section 18(2)(a)

<b>Content</b>	<b>Page</b>
<b>Part 1</b>	
<b>Personal Details</b>	<b>1</b>
<b>Part 2</b>	
<b>Details Of Learning Acquired</b>	
<b>A) Formal Learning</b> <b>Certificated Learning</b>	<b>4</b>
<b>B) Non Formal Learning</b> <b>Core Continuing Education Activities Attended</b>	<b>6 - 8</b>
<b>C) Informal Learning</b> <b>Experiential Learning : Employment History</b>	<b>10 - 11</b>
<b>D) List Of Clinical Cases Seen Throughout</b> <b>Working Life</b>	
<b>1) Cases Of Myopia With/Without Astigmatism</b> <b>(100)</b>	<b>14 - 24</b>
<b>2) Cases Of Hyperopia With/Without</b> <b>Astigmatism (80)</b>	<b>25 - 40</b>
<b>3) Cases Of Presbyopia (110)</b>	<b>41 - 62</b>
<b>4) Cases With Ocular Abnormalities (10)</b>	<b>63 - 64</b>
<b>E) Dispensing</b>	
<b>4) Full Frame (50)</b>	<b>65 - 68</b>
<b>5) Semi Rimless (40)</b>	<b>69 - 72</b>
<b>6) Rimless (40)</b>	<b>73 - 75</b>
<b>F) Other Relevant Learning Skills / Activities</b>	<b>76</b>
<b>G) Language Skills</b>	<b>76</b>
<b>Part 3 : Referees</b>	<b>77</b>

**THE COURSES GIVEN CREDIT TRANSFER  
THROUGH MOC APEL (C) ASSESSMENT**

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
1.	ANATOMY AND PHYSIOLOGY	4	<p>The module includes the general structure and variation in cells, macroscopic and microscopic structure of primary tissues and macroscopic morphology of the organs and structures of organ systems. Also covered simultaneously are the following physiology topics: Excitable tissues, the cardiovascular system, blood, neuroscience, reproduction, the respiratory systems, the gastrointestinal system, kidneys and body fluids and the endocrine system.</p>	<p>CLO1 - Comprehend a wide variety of anatomical and medical terms.  CLO2 - Identify and describe the microscopic and macroscopic morphology of cells, primary tissues, and structures of the organs systems of the human body.  CLO3 - Exhibit knowledge of the types of control exerted by the endocrines and nervous systems and characterize the various branches of the peripheral nervous system and their respective functions.  CLO4 - Exhibit knowledge of the basic electrical and molecular events associated with nerve cell communication and muscle contraction.  CLO5 - Understand how blood protects and assists the repair of tissue.  CLO6 - Exhibit knowledge of the basic functions of the cardiovascular, respiratory, urinary and digestive systems.</p>

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
2.	<b>OCCUPATIONAL VISION</b>	<b>3</b>	This module centres around the relationship of the eye and vision to all aspects of the environment including home, work, recreation and transportation. It covers the principles underlying the setting and administration of visual standards, human factors engineering of the task and environment to improve ocular and visual factors in the workplace. Visual ergonomics, eye hazards, epidemiology of occupational eye diseases and the principles of accident prevention are also discussed.	CLO1 – Describe the visual demands in the work place or in special environments. CLO2 – Explain the associated visual standards and occupational eye protection that they demand. CLO3 – Provide advice to industry and commerce on visual ergonomics.
3.	<b>PROFESSIONAL ISSUES</b>	<b>2</b>	The module revolves around the topics that encompasses the legal aspects, professional aspects and business management issues in contemporary optometric practice. Also included are issues of continuing education and challenges in the optometric profession nationally and world-wide.	CLO1 - State the relevant professional bodies in relation to optical practice in Malaysia and demonstrate a working knowledge of the Malaysian Optical Act 1991. CLO2 - Describe ethics in professional optometric practice. CLO3 - Demonstrate understanding of the business management aspects of an optical practice.
4.	<b>ENTREPRENEURSHIP</b>	<b>3</b>	It is designed to provide future entrepreneurs with the tools they need to master the most important	CLO1 - Understand the entrepreneurial processes, attributes of successful entrepreneurs,

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
			<p>issues involved in starting and managing a successful new business venture. It uses a variety of tools to stimulate student interest and to promote learning.</p>	<p>recognizing and evaluating opportunities, assessment and planning, financing and implementing new ventures.  CLO2 - Understanding how other aspects of business interconnect: marketing, management, finance, global markets and legal aspects that support the business planning process.</p>
5.	<b>INDUSTRY EXPERIENCE I</b>	<b>2</b>	<p>Students will spend 4 weeks in the industry. A full report is required at the end of the posting.</p>	<p>CLO1 - Demonstrate product/technical knowledge of some of the more popular and well utilized ophthalmic lenses in the market.  CLO2 - Display the attitude that is important for dealing with potential patients who present at optometric practice.  CLO3 - Handle simple clerical and customer-based tasks expected of an Optometric practice.</p>
6.	<b>INDUSTRY EXPERIENCE II</b>	<b>2</b>	<p>Students will spend 4 weeks in the industry. A full report is required at the end of the posting.</p>	<p>CLO1 - Display the right attitude for dealing with potential patients at an optometric practice.  CLO2 - Handle more complex clerical and customer-based tasks required of an Optometric/ Optical-based practice.</p>

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
7.	<b>CLINIC I</b>	<b>2</b>	This clinical module consists of clinical experience in general optometric care. Students will examine patients in the College's General Clinics. Students also participate in clinical discussions on cases seen with the internal and external supervisors. There is also a hands-on practical component that covers the tasks and skills required in filling out of all types of optical prescriptions, simple and complex, for patients examined in the General Clinic.	CLO1 - Examine patient using primary clinical optometric skills, using a data-based approach. CLO2 - Perform a complete refractive analysis on the presenting patient. CLO3 - Derive a tentative diagnosis and management plan to solve the patient's visual problems, especially those refractive in nature by optical means. CLO4 - Demonstrate understanding of the mechanics of ophthalmic differential diagnosis.
8.	<b>CLINIC II</b>	<b>4</b>	This clinical module consists of further clinical experience in general optometric care. Patients are seen under supervision in the College's General Clinics and also at external site. More meaningful thought process is involved here with supervisors acting as facilitators and mentors. There is also a hands-on practical component that covers the tasks and skills required in an edging optical workshop, in filling out of all types of optical prescriptions, simple and complex, for patients	CLO1 - Examine patients competently using primary clinical optometric skills, using a systems-based philosophy. CLO2 - Perform a refractive analysis on the presenting patient using all available data. CLO3 - Confirm a tentative diagnosis and management plan to solve the patient's visual problems, and to justify it using clinical arguments. CLO4 - Perform ophthalmic differential diagnosis in patients presenting with more than just refractive problems. CLO5 - Demonstrate professional attitude and good communication skills

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
9.	<b>CLINIC III</b>	<b>4</b>	<p>examined in the General Clinic.</p> <p>This is a clinical module which consists of clinical experience in general optometric care. Students will examine patients in the College's General Clinics and satellite clinics, and participate in discussions covering advanced analysis, including decision making in the diagnosis, management and treatment of patients seeking care for any type of complaints concerning the eye and the visual system will be the main emphasis. This module also requires students to be engaged in the practice of dispensing of prescriptions (ie: patient oriented) as well as in the fabrication (workshop-based) of prescriptions issued during the clinical postings in the 4th year, with minimal supervision.</p>	<p>in the care of optometric patients.</p> <p>CLO1 - Undertake advanced patient care.</p> <p>CLO2 - Demonstrate professional attitude and good communication skills in the care of optometric patients.</p> <p>CLO3 - Integrate scientific and clinical aspects of optometry and make well-reasoned decisions during primary patient encounters of a more complex nature.</p> <p>CLO4 - Demonstrate knowledge &amp; skills for dispensing all forms of optical aids to patients both within optometric settings.</p>
10.	<b>BUSINESS ETHICS</b>	<b>3</b>	<p>Business ethics and corporate responsibility have assumed greater importance for managers within both private and public sector organizations. Recently, the issues of governance, the</p>	<p>CLO1 - Recognize organizational challenges to ethical behavior.</p> <p>CLO2 - Evaluate common beliefs about ethics – especially common beliefs about the role of ethics in business.</p> <p>CLO3 - Develop strategies for</p>



NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
			<p>environment and the roles and responsibilities of those who manage organizations and institutions have acquired increased attention, in response to concerns involving marketing, litigation or organizational effectiveness.</p> <p>As an overall view, this course will provide knowledge to students on the impact of business ethics to business practices. It will cover from social and corporate responsibility, corporate citizenship, corporate governance, human rights at work-place, fair trade and ethical issues in industries.</p>	<p>identifying and dealing with typical ethical issues, both personal and organizational.</p> <p>CLO4 - Demonstrate an understanding of common ethical problems in business and other organizations, and determine practical steps that can be taken to address those problems.</p>
11.	CASE STUDIES I	1	<p>Each student is required to make oral presentations of cases seen in their General Clinics through-out the semester, where students are expected to analyse and discuss the cases, particularly with regards to differential diagnosis and the management of the patient. Fellow students and an instructor form the topic presented in class, in</p>	<p>CLO1 - Present clinical cases seen in their General Clinics throughout the semester.</p> <p>CLO2 - Analyse optometric cases from the General Clinic with respect to appropriateness of procedures carried out.</p> <p>CLO3 - Demonstrate knowledge of differential diagnosis and management of patients with functional visual</p>

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
			preparation for the final examination.	disorder.
12.	<b>CASE STUDIES II</b>	<b>2</b>	Each student is to present and analyse/assess patients that have been seen in different clinics that they have attended through-out the final semester. Students are naturally expected to handle question directed at them by the attending instructor and fellow students particularly with regards to differential diagnosis and the plan for the patient. An emphasis is given to more complex and demanding cases, and to the principles of pharmaceutical care, where applicable.	CLO1 - Present cases which are of more nature seen in all of their clinical postings throughout the semester. CLO2 - Analyse such cases from different types clinic, with appropriate differential diagnostic paradigm. CLO3 - Demonstrate knowledge of management of patients with functional and/or pathological visual disorders.
13.	<b>OPTOMETRIC OPTIC I</b>	<b>4</b>	Geometrical optics is taught to allow for the students to reflect and apply optical principles in their chosen field ie Optometry. Topics selected include: Reflection and refraction of monochromatic, paraxial rays for spherical surfaces and thin lenses, monochromatic and chromatic aberrations, principles of optical instruments and how the eye is regarded as an optical system. Physical optics	CLO1 - Demonstrate knowledge of optical principles in both physical and geometrical optics that are fundamental to optometric practice. CLO2 - Solve problems in relation to lenses, and optical systems in general. CLO3 - Demonstrate understanding of the principles of both geometrical and physical optics pertaining to optical instrumentation.

NO	LIST OF COURSES	CREDIT	COURSE SYNOPSIS	COURSE LEARNING OUTCOME
			cover the following areas: The wave nature of light, interference, diffraction and polarization.	
14.	<b>OPTOMETRIC OPTICS II</b>	<b>4</b>	This module is about visual optics and the optics of spectacle lenses. The visual optics section include: the reduced eye, ocular refraction, retinal image analysis, errors of refraction, accommodation, ocular aberrations, retinal projection, entoptic fields and basic photometry. More advanced topics are also covered, these include: components of refraction, phakometry and step-along vergence analysis. The section on the optics of spectacle lenses covers the following topics: Optics of the measurement and correction of refractive errors and spectacle correction.	CLO1 - Understand the Optics of the eye, including aberrations of the human eye. CLO2 - Demonstrate knowledge of the measurement and correction of refractive errors. CLO3 - Demonstrate knowledge of the optics of spectacle lenses and the indications for their use. CLO4 - Characterize and verify different types of ophthalmic lenses.
15.	<b>OPHTHALMIC DISPENSING I</b>	<b>1</b>	This is a practical-based module that builds on the theoretical knowledge gained from earlier studies of ophthalmic optics. It essentially covers the skills required in the process of ophthalmic edging and dispensing starting from the preparation of the	CLO1 - Prepare lenses, frames and to make necessary measurement for the edging processes. CLO2 - Cut, edge and dispense simple optical prescriptions of single vision lenses using both manual and automatic edgers. CLO3 - Cut, edge and dispense

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			<p>optical prescriptions till the edging and fitting of simple prescriptions of single vision lenses. Fundamentals of the maintenance of optical workshop equipment are also emphasized.</p>	<p>various type of spectacles. CLO4 - Demonstrate preliminary knowledge of the processes of edging and maintenance of equipment in an optical edging workshop.</p>
16.	OPHTHALMIC DISPENSING II	1	<p>This module builds and continues on the earlier module, OPT Ophthalmic Dispensing Workshop I. It is a hands-on practical module that covers the tasks and skills required in a normal edging optical workshop, using automatic edgers in filling out of prescriptions for bifocals and PALs and ability to handle special prescription and task on ophthalmic lenses.</p>	<p>CLO1 - Cut, edge and dispense simple and complex optical prescriptions including bifocals and PALs. CLO2 - Cut, edge and dispense various type of prescription and spectacles. CLO3 - Demonstrate knowledge of available machinery in an optical edging laboratory. CLO4 - Analyse and provide solutions to problems relating to dispensing of ophthalmic appliances.</p>

