



UNIVERSITI TEKNOLOGI MARA

OPT458: CLINICAL OPTOMETRY I

Course Name (English)	CLINICAL OPTOMETRY I APPROVED
Course Code	OPT458
MQF Credit	4
Course Description	This course deals with the review on procedures of case history taking, external eye assessment, and preliminary tests and visual acuity test. The student will also go through the introduction and practical on theories, principles and procedures of objective and subjective refractive techniques.
Teaching Methodologies	Lectures, Lab Work, Demonstrations, Early Clinical Exposure
CLO	<p>CLO1 List the signs and symptoms reported by patient presenting with visual problems (PLO1 / C2)</p> <p>CLO2 Define and conduct visual acuity test and estimate the refractive error according to the visual acuity status. (PLO2 / C5)</p> <p>CLO3 State, write and explain the principles of retinoscopy, techniques in refraction and entrance tests examination. (PLO1 / C5, P2, A4)</p> <p>CLO4 Perform basic optometric investigations including history taking, entrance tests, retinoscopy and refraction. (PLO2 / C3, P2)</p> <p>CLO5 Differentiate between varieties of refractions techniques and know when to use it. (PLO3 /C4, P3)</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. Case History 1.1) The importance of case history 1.2) Case history components for a problem-focused exam 1.3) Questionnaires in case history 1.4) Demographic information and patient profile 1.5) Ocular history 1.6) Health history 1.7) The chief complaint	
2. Vision Testing 2.1) 2.1. Definition of vision and visual acuity 2.2) 2.2. Relationship of visual acuity status with refractive errors 2.3) 2.3. Visual acuity charts and notations 2.4) 2.4. Distance and near visual acuity tests 2.5) 2.4.1. Standard testing condition 2.6) 2.4.2. Letter size 2.7) 2.4.3. Testing distance 2.8) 2.4.4. Illumination 2.9) 2.4.5. Acuity testing procedures	
3. Entrance Tests 3.1) 3. Entrance Tests (I) 3.2) 3.3) 3.1. External eye observation 3.4) 3.2. Interpupillary distance measurement 3.5) 3.3. Cover test 3.6) 3.3.1. Unilateral cover test 3.7) 3.3.2. Alternating cover test 3.8) 3.9) 4. Entrance Tests (II) 3.10) 3.11) 4.1. Near point of convergence	

- 3.12) 4.2. Near point of accommodation
- 3.13) 4.2.1. Amplitude of accommodation
- 3.14) 4.3. Ocular motility test
- 3.15) 4.4. Tests of papillary function
- 3.16) 4.4.1. Pupil size
- 3.17) 4.4.2. Direct, consensual and near reflexes
- 3.18) 4.4.3. Swinging flashlight test
- 3.19) 4.4.4. Pupillary anomalies
- 3.20) 4.5. Confrontation field
- 3.21) 4.6. Colour vision
- 3.22) 4.7. Stereopsis

4. Retinoscopy

- 4.1) 5. Retinoscopy (I)
- 4.2)
- 4.3) 5.1. Introduction
- 4.4) 5.1.1. Principles of retinoscopy
- 4.5) 5.1.2. Illumination and observation system in retinoscope
- 4.6) 5.1.3. Light reflex in retinoscope
- 4.7)
- 4.8) 6. Retinoscopy (II)
- 4.9)
- 4.10) 6.1. Model eye
- 4.11) 6.1.1. Static retinoscopy
- 4.12) 6.1.2. Working distance
- 4.13) 6.1.3. Light reflex, reflex motion and neutralise lenses
- 4.14)
- 4.15) 7. Retinoscopy (III)
- 4.16)
- 4.17) 7.1. Human eye
- 4.18) 7.1.1. Static retinoscopy
- 4.19) 7.1.2. Retinoscopy procedure
- 4.20) 7.1.2.1. Working distance
- 4.21) 7.1.2.2. Fixation target
- 4.22) 7.1.2.3. Patient instructions
- 4.23) 7.1.2.4. Starting point
- 4.24) 7.2. Light reflex, reflex motion and neutralise lenses

5. Subjective refraction

- 5.1) 9. Subjective refraction
- 5.2)
- 5.3) 9.1. Fogging method
- 5.4) 9.2. Best vision sphere
- 5.5) 9.3. The Jackson Crossed Cylinder
- 5.6) 9.3.1. Astigmatism chart
- 5.7) 9.3.2. Cross-cylinder
- 5.8) 9.3.3. Refine cylinder axis
- 5.9) 9.3.4. Refine cylinder power
- 5.10) 9.3.5. Monocular endpoint
- 5.11)
- 5.12) 10. Subjective refraction (I)
- 5.13)
- 5.14) 10.1. Fan & Block technique
- 5.15) 10.1.1. Refine cylinder axis
- 5.16) 10.1.2. Refine cylinder power
- 5.17) 10.1.3. Monocular endpoint
- 5.18)
- 5.19) 11. Subjective refraction (II)
- 5.20)
- 5.21) 11.1. Stenopaic slit refraction
- 5.22) 11.1.1. Refine cylinder axis
- 5.23) 11.1.2. Refine cylinder power
- 5.24) 11.1.3. Monocular endpoint
- 5.25)
- 5.26) 12. Subjective refraction (III)
- 5.27)
- 5.28) 12.1. Subjective refraction procedure without retinoscopy
- 5.29) 12.2. Subjective refraction procedure after retinoscopy
- 5.30) 12.3. Binocular balancing
- 5.31) 12.3.1. Prism dissociated
- 5.32) 12.3.2. Successive contrast

6. Virtual refractor

6.1) 13. Virtual refractor

6.2)

6.3) 13.1. Introduction

6.4) 13.2. Program application

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Lab Exercise	n/a	20%	CLO1 , CLO2 , CLO3 , CLO4 , CLO5
	Practical	n/a	20%	CLO2 , CLO4
	Test	n/a	10%	CLO1 , CLO2 , CLO3

Reading List	Reference Book Resources	<ul style="list-style-type: none"> • Grosvenor, T.D. 2007, <i>Primary Care Optometry</i>, 5 Ed., Butterworth-Heinemann. • Elliot, D.B. 1997, <i>Clinical Procedures in Primary Eye Care</i>, Oxford: Butterworth-Heinemann. • Carlson, N.B. Kurtz, D. & Heath, D.A. 1996, <i>Clinical Procedures for Ocular Examination</i>, Stamford : Appleton & Lange • Benjamin, W.J. 1998, <i>Borishs Clinical Refraction</i>, 4 Ed., Philadelphia: W.B.Saunders.
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	