



UNIVERSITI TEKNOLOGI MARA

OPT455: OPHTHALMIC OPTICS II

Course Name (English)	OPHTHALMIC OPTICS II APPROVED
Course Code	OPT455
MQF Credit	2
Course Description	The course describes optical characteristics of frames, lenses, contact lenses and low vision devices, optical and frames of high power lenses, magnifications of lenses, types, of absorption lenses and their properties, impact resistance, optical tolerance and physical requirement of ophthalmic lenses.
Teaching Methodologies	Lectures, Lab Work
CLO	<p>CLO1 Explain the physical characteristics and specifications of frame materials, types of lenses, and the consideration factors of choosing frame and types of lenses</p> <p>CLO2 Explain the characteristics and specifications of the safely glasses</p> <p>CLO3 Explain the optical characteristics of the simple low vision devices</p> <p>CLO4 Explains the methods to verify the basic parameters of the contact lenses.</p> <p>CLO5 Perform frame parameter measurement, adjustment and modification.</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. Frames - Physical characteristics and biological compatibility 1.1) n/a	
2. Specifications and nomenclature frames 2.1) n/a	
3. Optical and frame considerations of high powered lenses 3.1) n/a	
4. Spectacle magnification 4.1) n/a	
5. Methods of remedying reflections and ghost images 5.1) n/a	
6. Absorptive lenses 6.1) n/a	
7. Impact resistance 7.1) n/a	
8. Optical tolerance and physical requirement of ophthalmic lenses and fr 8.1) n/a	
9. Optical characteristic of contact lenses 9.1) n/a	
10. Optical characteristics of low vision devices 10.1) n/a	
11. Test 11.1) n/a	
12. Skill Test 12.1) n/a	
13. Final Exam 13.1) n/a	

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	Skill Test	20%	CLO1 , CLO2 , CLO3 , CLO4 , CLO5
	Test	n/a	10%	CLO1 , CLO2 , CLO3 , CLO4

Reading List	Recommended Text	<ul style="list-style-type: none"> Brooks C.W. 2006, <i>System for Ophthalmic Dispensing</i>, Elsevier Science Health Science.
	Reference Book Resources	<ul style="list-style-type: none"> Shukla A.V. 2009, <i>Clinical Optics Primer for Ophthalmic Medical</i>, Oxford: Butterworth Heinemann Jalie M 2003, <i>Ophthalmic lenses & Dispensing</i>, 2 Ed., London: Association of British Dispensing Opt Dowaliby M 2000, <i>Practical aspects of ophthalmic optics</i>, 4 Ed., Boston: Butterworth-Heinemann Fowler C & Latham K 2000, <i>Spectacle lenses</i>, Oxford: Butterworth-Heinemann.
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	