



UNIVERSITI TEKNOLOGI MARA

OPT425: OPHTHALMIC OPTICS I

<b>Course Name (English)</b>	OPHTHALMIC OPTICS I <b>APPROVED</b>
<b>Course Code</b>	OPT425
<b>MQF Credit</b>	2
<b>Course Description</b>	no description provided
<b>Teaching Methodologies</b>	Lectures, Lab Work
<b>CLO</b>	CLO1 Explain the physical and optical characteristics of spherical, cylinder, spherocylindrical, and toric lenses CLO2 Calculate the base curves, lens thickness and prismatic effects of spherical, cylinder, spherocylindrical, and toric lenses. CLO3 Explain the advantages and disadvantages of each of the lens' materials. CLO4 Verify the spherical, cylinder, spherocylindrical, bifocal and multifocal lenses. CLO5 Measure pupil height and interpupillary distance (IPD) of the subjects and explain the usage of prismatic effect calculation.
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Spherical lenses</b> 1.1) n/a	
<b>2. Cylinder and spherocylinder lenses</b> 2.1) n/a	
<b>3. Toric lens</b> 3.1) n/a	
<b>4. Design and size of lenses</b> 4.1) n/a	
<b>5. Prismatic effect</b> 5.1) n/a	
<b>6. Bifocal lenses</b> 6.1) n/a	
<b>7. Multifocal lenses</b> 7.1) n/a	
<b>8. Test</b> 8.1) n/a	
<b>9. Skill Test</b> 9.1) n/a	
<b>10. Final Exam</b> 10.1) 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	Practical Test	20%	CLO1 , CLO2 , CLO3 , CLO4 , CLO5
	Test	n/a	10%	CLO1 , CLO2 , CLO3 , CLO4 , CLO5

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