

# OPTO20001 Optical Design and Ophthalmic Metrology

655-102001 Optical Design and Ophthalmic Metrology

Credit Points:	12.50								
Level:	2 (Undergraduate)								
Dates & Locations:	2011, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.								
Time Commitment:	Contact Hours: 3 x one hour lectures per week; and 22 hours of practical work/computer-aided learning (CAL) during the semester Total Time Commitment: Estimated total time commitment of 120 hours								
Prerequisites:	One of <table> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> <tr> <td>OPTO10002 Optics: From Rainbows to Digital Imaging</td> <td>Semester 2</td> <td>12.50</td> </tr> </table> # 655-101 Optical Systems (prior to 2003) # 655-102 Optical Systems (prior to 2004) # 655-202 Optical Systems (prior to 2006)			Subject	Study Period Commencement:	Credit Points:	OPTO10002 Optics: From Rainbows to Digital Imaging	Semester 2	12.50
Subject	Study Period Commencement:	Credit Points:							
OPTO10002 Optics: From Rainbows to Digital Imaging	Semester 2	12.50							
Corequisites:	None								
Recommended Background Knowledge:	None								
Non Allowed Subjects:	Credit cannot be gained for this subject and any of # 655-219 Optics and Ophthalmic Metrology (prior to 2007) # 655-311 Optical Design and Ophthalmic Metrology (prior to 2008)								
Core Participation Requirements:	For the purposes of considering applications for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005) and Students Experiencing Academic Disadvantage Policy, this subject requires all students to actively and safely participate in laboratory class activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the Subject Coordinator and the Disability Liaison Unit. <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>								
Coordinator:	Dr Andrew Anderson								
Contact:	Email: <a href="mailto:aaj@unimelb.edu.au">aaj@unimelb.edu.au</a> (mailto:aaj@unimelb.edu.au)								
Subject Overview:	It is an introduction to ophthalmic lenses and spectacle lens design. The topics covered include aberration theory, optical design and control of aberrations including the design of ophthalmic lenses, advanced photometry and radiometry, and optics of commonly used ophthalmic instruments. Practical classes will include computer-aided tutorials on both optical design and lens calculations.								
Objectives:	The purpose of this subject is to provide an understanding of the principles and techniques of optical design including an understanding of the control and optimisation of aberrations								
Assessment:	Ongoing assessment of practical work during the semester (15%); a calculation-based group assignment due at the end of the semester (10%); and two written examinations (a 1-hour written examination during semester (25%) and a 2-hour written examination in the examination period (50%)). Satisfactory completion of each of the practical work and assignment, along with a satisfactory combined mark of at least 50% in the written examinations, is necessary to pass the subject.								
Prescribed Texts:	None								

<b>Recommended Texts:</b>	# G Smith and D A Atchison, The Eye and Visual Optical Instruments, Cambridge University Press, 1997 (or later edition)
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Notes:</b>	This subject is only available to students enrolled in the Bachelor of Optometry. Enrolment into this subject is only by invitation of the Head of Department.
<b>Related Course(s):</b>	Bachelor of Optometry