OPTO20003 Visual Processing and Control

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. Lectures and practicals.
Time Commitment:	Contact Hours: 2 x one hour lectures per week; plus 6 x three hour practical classes during the semester Total Time Commitment: Estimated total time commitment of 120 hours
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
OPTO20002 Human Visual Functions	Semester 1	12.50

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
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 practical 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. http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Larry Abel
Contact:	**Email: label@unimelb.edu.au (mailto:label@unimelb.edu.au)**
Subject Overview:	The subject begins with the neural control of gaze and follows up with a full account of normal and abnormal eye movements. The subject deals with muscular mechanisms of the eye including the mechanics of saccadic and slow eye movements, Listing's Law, neural control of eye movements and binocular eye movements, Hering's Law, accommodation and the accommodative-convergence synkinesis and pupillary reactions. There will be lectures on the use of electrical recordings from the eye to help understand ocular function. The subject will also include a detailed account of the visual space sense, including binocular correspondence, the horopter, fusion and stereopsis.
Objectives:	This subject aims to provide students with a series of lectures dealing with the structure and function of the visual system, essential for a fundamental understanding of the rationale of many types of measurements and observations undertaken in evaluating visual function.
Assessment:	Ongoing assessment of practical work during the semester (20%); a 30-minute written examination held mid-semester (10%); a 3-hour written examination in the examination period (70%). Satisfactory completion of practical work is necessary to pass the subject.
Prescribed Texts:	E R Kandel, J H Schwartz, T M Jessell, Principles of Neural Science 4th Ed, McGraw-Hill, 2000
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	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.
Related Course(s):	Bachelor of Optometry