



# Course Outline

**OPTM7611**

**Introduction to Myopia**

**Optometry and Vision Science**

**Faculty of Science**

**Term 1, 2019**

## 1. Staff

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Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Dr Nayuta Yoshioka	n.yoshioka@unsw.edu.au	Email for appointment	n.yoshioka@unsw.edu.au
Lecturers				
	Dr Michele Madigan		During Webinar	
	Dr Alex Hui		During Webinar	
	Dr Xiaoying Zhu		Contact course convenor	
	A/Prof Barbara Junghans		During Webinar	
	Prof Padmaja Sankaridurg		During Webinar	
	Mr Michael Yapp		Contact course convenor	
	Prof Isabelle Jalbert		During Webinar	
	Dr Kathleen Watt		During Webinar	

## 2. Course information

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Units of credit: 6

Pre-requisite(s): Students are assumed to have a level of knowledge and skill commensurate with a 1997 (or later) graduate of the BOptom course at UNSW, or other equivalent course of study, and to have competency in the relevant clinical diagnostic techniques. International students are assumed to have the equivalent of a three-year AQF level 7 Bachelor degree in Optometry with a credit average.

Teaching times and locations: Online lectures, interactive webinars and forum discussions available on Moodle.

### 2.1 Course summary

The prevalence of myopia is increasing worldwide, and recent evidence has shown that traditional myopia management is not best practice. Optometrists around the world are now realising that the issue of myopia is more than a refractive condition, and there is a strong demand to gain understanding and up skill in how they can manage myopia as a health condition.

This is the first core course for the Graduate Certificate in Myopia Management program. This course will provide fundamental theoretical knowledge to be able to effectively and appropriately implement evidence-based myopia management into clinical practice. Other courses that are a part of the

Graduate Certificate in Myopia Management program include OPTM7612, OPTM7621 and OPTM7104.

This course provides an introduction to the basic and clinical sciences related to myopia development and progression. There is a review of basic anatomy and physiology of the eye, and pharmacology. Refractive error topics including cause and development, epidemiology, assessment and correction, and associated ocular health risks will be discussed. Other topics include the impact and burden of refractive error, particularly myopia, on public health and the individual.

## **2.2 Course aims**

The course aims to provide fundamental understanding of ocular growth with particular emphasis on refractive error development and associated ocular health risks. The course will enhance optometrists' skills, knowledge and management practice of progressive myopia, particularly in the paediatric population.

## **2.3 Course learning outcomes (CLO)**

At the successful completion of this course you (the student) should be able to:

1. Have an appropriate level of knowledge of normal eye growth and refractive error development
2. Develop understanding of basic pharmacokinetics and pharmacodynamics
3. Discuss the increasing epidemiology and burden of refractive error, particularly myopia across the globe and their local context
4. Develop awareness of the impact of myopia to public health and the individual, including associated ocular health risks
5. Develop advanced disciplinary knowledge that is both theoretical and practical in a number of fields in optometry
6. Gain a national and global outlook of contemporary issues most relevant to research and the practice of optometry
7. Develop skills and knowledge in evidence-based practices to foster life-long learning, critical analysis and independent enquiry

## 2.4 Relationship between course and program learning outcomes and assessments

Program Learning Outcomes (PLOs) can be found on the UNSW Handbook:  
<http://www.handbook.unsw.edu.au/postgraduate/programs/2018/8073.html>

Course Learning Outcome (CLO)	Learning Outcome Statement	Program Learning Outcome (PLO)	Related Tasks & Assessment
CLO 1	Have an appropriate level of knowledge of normal eye growth and refractive error development	2	
CLO 2	Develop understanding of basic pharmacokinetics and pharmacodynamics	2	
CLO 3	Discuss the increasing epidemiology & burden of refractive error, particularly myopia across the globe & their local context	1,2,5	
CLO 4	Develop awareness of impact of myopia to public health & the individual, including associated ocular health risks	2,	Learning through online lectures, webinars (CLO1-7). These the level of proficiency will be assessed with the mid-term (CLO 1, 2, 5) and final examinations (CLO 1-6). See section 5 for assessment details
CLO 5	Develop advanced disciplinary knowledge (theoretical & practical) in a number of fields in optometry	2,3	
CLO 6	Gain a national & global outlook of contemporary issues most relevant to research & practice of optometry	2,6	
CLO 7	Develop skills & knowledge in evidence-based practices to foster life-long learning, critical analysis and independent enquiry	1, 3, 4	

### **3. Strategies and approaches to learning**

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#### **3.1 Learning and teaching activities**

To maximise learning effectiveness, a number of strategies are used in the course to encourage critical thinking and deep learning of the topics and issues. Digital learning platforms including online lectures, videos, case studies and webinars will be used to deliver course material. Prescribed text will be in the form of journal articles to encourage development of skills and knowledge in evidence-based practices to foster life-long learning, critical analysis and independent enquiry.

#### **3.2 Expectations of students**

<b>Expectations of Students</b>	<p>It is the expectation of the course that students will practice independent learning and take responsibility for their own learning. Please schedule adequate time during the course to complete the weekly activities, including (but not limited to) listening to the lecture, attending the webinar, participating in the online forum, reading additional materials and preparation for exams.</p> <p>Some components of this course are compulsory, and you are expected to attend. Attendance for the final examination will be monitored by taking a roll after exam submission.</p> <p>While a roll will not be taken during the Webinar, MCQs contributing to the assessment component will only be available on the Webinar. Students are therefore strongly encouraged to attend all Webinars.</p> <p>The compulsory course components, and the justification for their compulsory nature, are as follows:</p> <ul style="list-style-type: none"><li>• The webinars as they serve to reinforce the module material</li><li>• The final examination to evaluate the understanding of the course material</li></ul> <p>The University uses email as an official form of communication for students. All UNSW students have their own email account. The School of Optometry and Vision Science will also make use of this form of communication.</p> <p>It is extremely important that you know how to use your Zmail and ensure that you check it regularly. You are advised to link your official UNSW email address to your habitual email address (e.g. hotmail). You will miss out on vital information from the School and University if you do not check your Zmail.</p> <p>For more information or if you are having connection or access problems, see:</p> <p><b>IT Service Centre</b> <a href="http://www.it.unsw.edu.au/">www.it.unsw.edu.au/</a> Telephone: 02 9385 1333 Email: <a href="mailto:itservicecentre@unsw.edu.au">itservicecentre@unsw.edu.au</a></p>
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## 4. Course schedule and structure

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<b>Week</b>	<b>Online Lecture Topic</b>	<b>Webinar topic</b>	<b>Related CLO</b>
<b>Week 1</b>	Basic anatomy & physiology of the eye (lecturer: Prof M. Madigan)	Introduction	CLO 1
<b>Week 2</b>	Basic ocular pharmacology related to myopia management (lecturer: Dr Alex Hui)		CLO 2
<b>Week 3</b>	Emmetropisation & aetiology of refractive errors (animal studies) (lecturer: Dr Xiaoying Zhu)	Weeks 1 & 2	CLO 1
<b>Week 4</b>	Emmetropisation & aetiology of refractive errors (human studies) (lecturer: Prof B. Junghans)		CLO 1
<b>Week 5</b>	Epidemiology of myopia across locations and the globe (lecturer: Prof P. Sankaridurg)	Weeks 3 & 4	CLO 3 & 6
<b>Week 6</b>	Impact of myopia to public health & quality of life (lecturer: TBC)		CLO 4 & 6
<b>Week 7</b>	Ocular health risks associated with myopia (lecturer: Mr Michael Yapp & Dr Nayuta Yoshioka)	Weeks 5 & 6	CLO 4 & 6
<b>Week 8</b>	Skills & knowledge in evidence-based practices, critical analysis, & independent enquiry (lecturer: Prof I. Jalbert)		CLO 7
<b>Week 9</b>	Optical instrumentation used in detecting myopia progression & control (lecturer: Dr Nayuta Yoshioka)	Weeks 7 & 8	CLO 5
<b>Week 10</b>	Fundamentals of Binocular Vision relevant to myopia development and control (lecturer: Dr K. Watt)		CLO 5
<b>Week 11</b>	No lecture	Weeks 9 & 10	

## 5. Assessment

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### 5.1 Assessment tasks

Assessment task	Length	Weight	Mark	Assessment date
<b>Assessment 1:</b> Final examination:  Short answer question and multiple-choice question assessing knowledge of the overview of course material on the basic and clinical sciences related to myopia development and progression.	2 hours	50%	/50	Exam week
<b>Assessment 2:</b> Mid-term MCQ:  Online multiple choice questions of all course materials up to week 4	30 minutes	25%	/25	Week 5
<b>Assessment 3:</b> Webinar:  Attendance in interactive webinars as well as participation in the discussion of videos and course material on the basic and clinical sciences related to myopia development and progression, including answering webinar/forum questions	N/A	25%	/5 per webinar	At end of each webinar

#### Further information

UNSW grading system: [student.unsw.edu.au/grades](http://student.unsw.edu.au/grades)

UNSW assessment policy: [student.unsw.edu.au/assessment](http://student.unsw.edu.au/assessment)

### 5.2 Assessment criteria and standards

Assessment task	Assessment Criteria
Final examination	Pass on the final exam is set at 50%. To pass the course the final examination must be passed. Students who fail the exam will be given a maximum course grade of UF
Mid-term examination	Accuracy of the answers
Webinar	Participation in discussion board questions and/or webinars  Submission of questions prior to webinars  Answering the MCQs during Webinar  Answering webinar/forum questions on topic matters

### **5.3 Submission of assessment tasks**

The assessable components of the Webinar will be administered and submitted online during the webinar session and on Moodle. One of the assessable components (the MCQ) is only available during the Webinar and mark given for attempt and the correctness of the response. It is therefore **imperative for the students to attend the Webinar and complete the tasks as assigned in Moodle**. Others consist of completion of tasks within Moodle and evidence of active participation in the learning activities.

The mid-term examination will be administered online on Moodle and will be made available during Week 5 from Thursday 5pm until Sunday midnight. While you may commence the exam anytime during this time frame, please note that you must **complete the task within 30 minutes of starting your attempt**. You are only permitted to sit this exam once and your response will be automatically submitted at the end of 30 minutes. Students will be permitted to refer to their study notes and other course resources during the examination. However, each student must attempt the examination themselves

The final examination will be conducted at UNSW Kensington Campus or Randwick Race Course during the weekend during the May exam week. Please avoid booking trips during this time. Exact date and location will be confirmed closer to the date. Students must be able to attend the examination in person unless they apply for Special Consideration (see below).

<b>Assessment Procedures</b>  <b>UNSW Assessment Policy<sup>1</sup></b>	<p>SCHOOL OF OPTOMETRY AND VISION SCIENCE, UNSW SUPPLEMENTARY EXAMINATION INFORMATION, 2019</p> <p>There are two circumstances whereby a supplementary examination may be granted:</p> <p><b>COMPETENCY IN DOUBT</b></p> <p>Students whose competency level is in doubt after the final examination(s) may be eligible to sit a supplementary examination in the course(s) concerned.</p> <p>Please check the School website for this information.</p> <p><b>SPECIAL CONSIDERATION</b></p> <p>On some occasions, sickness, misadventure or other circumstances beyond your control may prevent you from completing a course requirement, such as attending a formal end of semester examination. In these cases, you may apply for Special Consideration. To do this you must make formal application for Special Consideration for the course/s affected as soon as practicable after the problem occurs and within three working days of the assessment to which it refers. The application must be made via Online Services in myUNSW. Log into myUNSW and go to My Student Profile tab &gt; My Student Services &gt; Online Services &gt; Special Consideration. Submit the application (including supporting documentation) to UNSW Student Central.</p> <p><b>Special Consideration - Pre-Existing Conditions</b></p> <p>Many conditions that are the subject of special consideration applications are pre-existing and could be used repeatedly to gain examinations at a later date. These include conditions aggravated or triggered by the stress of the assessment. With the help of your doctor and/or other health care practitioners, steps can be taken ahead of the assessment time to minimise or avoid the consequences of these conditions. When applying for special consideration on the basis of a condition that was already known to be a problem for you and which you have already used as the basis for a special consideration application, the School will require you to provide a certificate that details the preventative measures taken and why they were not successful. This will then be taken into account when considering the application.</p> <p>Absence from a final examination is a serious matter, normally resulting in a Fail (FL) grade. If you are medically unfit to attend an examination, YOU MUST CONTACT THE SCHOOL DIRECTLY ON THE DAY OF THE EXAMINATION TO ADVISE OF THIS (telephone 02 9385 4639, email: <a href="mailto:optometry@unsw.edu.au">optometry@unsw.edu.au</a>). You must also submit a Request for Special Consideration application as detailed above.</p> <p>You are reminded that supplementary examinations are not granted lightly or automatically. Eligibility for supplementary examinations, for both of the above situations, is determined by the School Examination Committee, which meets soon after the formal examination period has ended. You cannot "apply" for a supplementary examination, so please do not contact the School or Course Controllers to request a supplementary examination.</p> <p>It is the responsibility of the student to consult the web site or noticeboard to ascertain</p>
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	<p>whether they have supplementary examinations. This information WILL NOT be conveyed in ANY other manner. Interstate, overseas or any other absence cannot be used as an excuse.</p> <p>This information will be available on the School web site at <a href="https://www.optometry.unsw.edu.au">https://www.optometry.unsw.edu.au</a> (do not confuse the School website with the myUNSW website) and posted on the notice board on Level 3. This information will be available as soon as possible after the School Examination Committee meeting.</p> <p><b>SUPPLEMENTARY EXAMINATIONS FOR 2019 WILL BE HELD between Friday May 24th to 31st</b></p> <p>Supplementary examinations will be held at the scheduled time only. If students who are granted supplementary examinations do not attend, a failure will be recorded for that course. Students should not make travel arrangements, or any other commitments, before establishing whether or not they have supplementary examinations. Ignorance of these procedures, interstate, overseas or any other absence will not be accepted as an excuse. But usual Special Consideration for illness still applies.</p> <p>If additional assessment is not scheduled, this does NOT indicate whether or not a student has passed or failed the course. Results will be received in the usual way. Please do not contact the School in this regard.</p>
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<sup>1</sup>[UNSW Assessment Policy](#)

## 5.4. Feedback on assessment

Assessment	WHO	WHEN	HOW
Webinar	Course Convenor	Within 10 working days of assessment	Moodle
Mid-term exam	Course Convenor	Within 10 working days of assessment	Moodle
Final exam	Course Convenor	Released with final course mark	Released with final course mark

## 6. Academic integrity, referencing and plagiarism

**Academic integrity** is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage.<sup>1</sup> At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

- The *Current Students* site [student.unsw.edu.au/plagiarism](http://student.unsw.edu.au/plagiarism), and
- The *ELISE* training site [subjectguides.library.unsw.edu.au/elise](http://subjectguides.library.unsw.edu.au/elise)

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: [student.unsw.edu.au/conduct](http://student.unsw.edu.au/conduct).

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<sup>1</sup> International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

## 7. Readings and resources

All prescribed and recommended resources are available for enrolled students through UNSW Library.

### Prescribed Resources:

Emmetropisation and the aetiology of refractive errors. Flitcroft DI (2014) *Eye*.

<https://www.ncbi.nlm.nih.gov/pubmed/24406411>

### Recommended Resources:

Global prevalence of myopia and high myopia and temporal trends from 2000 through 2050. Holden, B. A. Fricke, T. R. Wilson, D. A. Jong, M. Naidoo, K. S. Sankaridurg, P. Wong, T. Y. Naduvilath, T. J. Resnikoff, S. (2016) *Ophthalmology*.

<https://www.ncbi.nlm.nih.gov/pubmed/26875007>

Homeostasis of eye growth and the question of myopia. Wallman, J. Winawer, J. (2004) *Neuron*.

<https://www.ncbi.nlm.nih.gov/pubmed/15312645>

Is myopia a failure of homeostasis? Flitcroft, D.I.(2013) *Experimental Eye Research*.

<https://www.ncbi.nlm.nih.gov/pubmed/23454097>

**Book:** Clinical Ocular Pharmacology 5<sup>th</sup> edition by Jimmy D Bartlett and Siret D Jaanus. (2008)

Publisher: St. Louis, Mo. : Butterworth-Heinemann/Elsevier

## 8. Administrative matters

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<b>Work Health and Safety<sup>2</sup></b>	<p>Information on relevant Occupational Health and Safety policies and expectations both at UNSW and if there are any school specific requirements.</p> <p>Information on relevant policies and expectations is provided during General Safety Induction training. A copy of the Induction booklet distributed at this training is available from the School of Optometry and Vision Science office (RMB3.003) and the School website at: <a href="https://www.optometry.unsw.edu.au/whs/work-health-and-safety">https://www.optometry.unsw.edu.au/whs/work-health-and-safety</a></p>
<b>Equity and Diversity</b>	<p>The School of Optometry and Vision Science aims to provide a safe, supportive and welcoming environment for all staff and students regardless of their race, sex, age, religion, disability, socio-economic background, sexual orientation or gender identification. Further information on School Policy on Equity and Diversity is available at <a href="https://www.optometry.unsw.edu.au/about/equity-diversity-and-inclusion-policy">https://www.optometry.unsw.edu.au/about/equity-diversity-and-inclusion-policy</a></p> <p>Those students who have a disability or are dealing with personal circumstances that affect their study that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course Convenor prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (9385 4734 or <a href="http://www.studentequity.unsw.edu.au/">http://www.studentequity.unsw.edu.au/</a> ).</p> <p>Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.</p>

Student Complaint Procedure <sup>3</sup>	School Contact	Faculty Contact	University Contact
	Prof. Helen Swarbrick <a href="mailto:h.swarbrick@unsw.edu.au">h.swarbrick@unsw.edu.au</a> Tel: 9385 4373	A/Prof Janelle Wheat Deputy Dean (Education) <a href="mailto:j.wheat@unsw.edu.au">j.wheat@unsw.edu.au</a> Tel: 9385 0752  Or  Dr Gavin Edwards Associate Dean (Academic Programs) <a href="mailto:g.edwards@unsw.edu.au">g.edwards@unsw.edu.au</a> Tel: 9385 4652	Student Integrity Unit (SIU)  Telephone 02 9385 8515, email <a href="mailto:studentcomplaints@unsw.edu.au">studentcomplaints@unsw.edu.au</a>
<b>University Counselling and Psychological Services<sup>4</sup></b>	Information on Counselling and Psychological Services [CAPS] is available at: <a href="https://www.counselling.unsw.edu.au/">https://www.counselling.unsw.edu.au/</a> Tel: 9385 5418		

<sup>2</sup>[UNSW OHS Home page](#)

<sup>2</sup>[UNSW Assessment Policy](#)

<sup>3</sup>[Student Complaint Procedure](#)

<sup>4</sup>[University Counselling and Psychological Services](#)

## 9. Additional support for students

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- The Current Students Gateway: [student.unsw.edu.au](http://student.unsw.edu.au)
- Academic Skills and Support: [student.unsw.edu.au/skills](http://student.unsw.edu.au/skills)
- Student Wellbeing, Health and Safety: [student.unsw.edu.au/wellbeing](http://student.unsw.edu.au/wellbeing)
- Disability Support Services: [student.unsw.edu.au/disability](http://student.unsw.edu.au/disability)
- UNSW IT Service Centre: [www.it.unsw.edu.au/students](http://www.it.unsw.edu.au/students)