



**UNSW**  
SYDNEY

FACULTY OF SCIENCE  
SCHOOL OF OPTOMETRY AND VISION SCIENCE

OPTM8514  
**Research Project**

TERMS 1-3 2019

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# Faculty of Science - Course Outline

## 1. Information about the Course

NB: Some of this information is available on the [UNSW Handbook](#)<sup>1</sup>

Year of Delivery	2019			
<a href="#">Course Code</a>	OPTM8514			
Course Name	Research Project			
Academic Unit	School of Optometry and Vision Science			
Level of Course	Hons, core			
Units of Credit	12UOC			
Session(s) Offered	Term 1, 2 and 3			
Assumed Knowledge, Prerequisites or Co-requisites	Prerequisites for OPTM8518 include: OPTM6412 – Clinical Optometry 4A, OPTM6422- Clinical Optometry 4B; or equivalent course numbers in VISN			
Hours per Week	5 (notional – this may vary during the year)			
Number of Weeks	10 weeks in each term			
Commencement Date	February 2019 (but students may commence reading and planning for the project prior to this date in collaboration with their project supervisor)			
<b>Summary of Course Structure (for details see 'Course Schedule')</b>				
<b>Component</b>	<b>HPW</b>	<b>Time</b>	<b>Day</b>	<b>Location</b>
Research Project	5	Arrange with project supervisors		
<b>TOTAL</b>	<b>5</b> (approx. 180 hrs total through the year)			

## 2. Staff Involved in the Course

Staff	Role	Name	Contact Details	Consultation Times
<b>Course Convenor</b>		Prof Mark Willcox	<a href="mailto:m.willcox@unsw.edu.au">m.willcox@unsw.edu.au</a>	By appointment
<b>Additional Teaching Staff</b>	Project supervisor(s)	As allocated		
	Tutors & Demonstrators	n/a		
	Technical & Laboratory Staff	n/a		
	Other Support Staff	n/a		

<sup>1</sup> UNSW Online Handbook: <http://www.handbook.unsw.edu.au>

### 3. Course Details

<b>Course Description<sup>2</sup></b> (Handbook Entry)	<p>Modern optometrists need to be able to understand clinical and vision science research. This course introduces students to research and the scientific method. The course covers the following: a literature review, critical analysis of the literature, developing a hypothesis, experimental design, ethical considerations, and the research process. Students will work in pairs, under the supervision and guidance of a member of academic staff, visiting staff, staff optometrists, postgraduate research students or external researchers, to develop a realistic research proposal. Students are responsible for assembling the required materials, subjects and equipment, and conduct the experiment they proposed in (in close consultation with their supervisory teams).</p> <p>The data are analysed using the appropriate statistical methods, and a publication-quality written report is submitted. Each group is also required to present the results of their research at the annual student research presentation day, as a quick-fire (3-minute) presentation and as a scientific poster.</p>	
<b>Course Aims<sup>3</sup></b>	<p>The course aims to introduce the student to optometric and vision science research and to develop skills in research methods and critical analysis.</p>	
<b>Student Learning Outcomes<sup>4</sup></b>	<p>By the end of the course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Conduct a thorough literature review</li> <li>• Prepare a research proposal and Human Research Ethics Application</li> <li>• Design and implement a research plan</li> <li>• Collect and analyse data</li> <li>• Present an oral and poster presentation at a research presentation day</li> <li>• Write a scientific report of their research findings, usually based on format of a scientific paper</li> </ul> <p>Students will also have the opportunity to:</p> <ul style="list-style-type: none"> <li>• Use effective communication skills to present information in a convincing manner</li> <li>• Show strong information literacy skills by conducting an analytical literature review</li> <li>• Work collaboratively to explore a research topic</li> </ul>	
<b>Graduate Attributes Developed in this Course<sup>5</sup></b>		
<b>Science Graduate Attributes<sup>5</sup></b>	<b>Select the level of FOCUS</b> <i>0 = NO FOCUS</i> <i>1 = MINIMAL</i> <i>2 = MINOR</i> <i>3 = MAJOR</i>	<b>Activities / Assessment</b>
<b>Research, inquiry and analytical thinking abilities</b>	3	Literature review, research project, research presentation, project report

<sup>2</sup> UNSW Handbook: <http://www.handbook.unsw.edu.au>

<sup>3</sup> [Learning and Teaching Unit: Course Outlines](#)

<sup>4</sup> [Learning and Teaching Unit: Learning Outcomes](#)

<sup>5</sup> Contextualised Science Graduate Attributes: <https://www.science.unsw.edu.au/our-faculty/science-graduate-attributes>

<b>Capability and motivation for intellectual development</b>	3	Literature review, research project, research presentation, project report
<b>Ethical, social and professional understanding</b>	3	Human Research Ethics application
<b>Communication</b>	2	Research presentation, project report
<b>Teamwork, collaborative and management skills</b>	3	Research project, research presentation, project report
<b>Information literacy</b>	3	Literature review, research presentation, project report

<b>Major Topics (Syllabus Outline)</b>	Literature review, development of hypotheses, research design, ethics approval, conduct of research project, data collection, data analysis, research presentation, written project report.
<b>Relationship to Other Courses within the Program</b>	This course may be a pre-requisite for entry to the postgraduate research programs (MSc, PhD) in optometry, vision science or other sciences.

#### 4. Rationale and Strategies Underpinning the Course

<b>Teaching Strategies</b>	These courses involve true problem based learning. Students will select a research topic from a list provided by interested supervisors, and in a group of two they will develop a method to solve a research problem. They may not have the immediate knowledge to do this so will need to learn as the project progresses. This is interesting and challenging, and most students find that this is a very enjoyable part of the Optometry program.
<b>Rationale for learning and teaching in this course<sup>6,7</sup></b>	Students use authentic active learning to solve a research problem. This deep and personalised learning approach will foster the students' interest in research and the specific research topic, and will hopefully demonstrate that knowledge is not static but rather built on previous work through innovative exploration. These courses apply the theoretical knowledge learnt earlier in the optometry and vision science program to synthesise and evaluate material in order to step forward into an area where little knowledge exists. Hopefully through this process they will discover the fun and engagement of research.

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<sup>6</sup>[Reflecting on your teaching](#)

## 5. Course Schedule

Some of this information is available on the [Online Handbook](#)<sup>7</sup> and the [UNSW Timetable](#)<sup>8</sup>.

Because of the varying clinical rotation commitments in Year 5 of the Optometry program, there is no fixed weekly schedule for the Research Project. Times for meeting with supervisors and for conduct of the various components of these courses should be negotiated on a group by group basis with the nominated project supervisor(s). As a guide, between 6 and 7 hours per week on average should be spent on fulfilling requirements for these courses. This will vary from week to week at different times of the year, depending on the progress of the research project and other student commitments.

As a guide, the following schedule is recommended in order to complete the requirements of the course:

Students will be allocated to supervisors and topics in January 2019 to allow preparatory communication with the allocated supervisor, and to commence background reading and planning around the research topic.

A Literature Review on the research topic will be submitted to the supervisor no later than towards the end of the second trimester (15<sup>th</sup> August 2019)\*

A Human Research Ethics Application (either HREC or HREA Panel application as deemed appropriate by the supervisor) relating to the topic will be submitted to the supervisor no later than the end of trimester 2 (31<sup>st</sup> August 2019)\*. Note that it is highly recommended that Ethics Applications are submitted much earlier than this date. Please check at the relevant website (<http://research.unsw.edu.au/human-ethics-submission-deadlines-meeting-dates>) for closing dates for HREC and HREA Panel applications.

If the project is purely laboratory based with no need to submit an ethics application as no human participant involvement, the students will undertake a test to re-enforce their knowledge of the human ethics application process.

Conduct of the research project should commence as soon as possible once ethics clearance has been obtained, and should be completed by the end of November.

A Written Project Report should be submitted to the supervisor by the end of trimester 3 (28<sup>th</sup> November 2019).\* With permission of the supervisor this deadline may be extended into the second week of December, but submission deadlines must take into account the time needed for external examination of the report by two independent assessors and collation of marks before the School Examination Committee meeting in late December.

A Rapid-Fire (3 minute) Presentation and a Poster Presentation will be made at the Student Research Presentation Day, scheduled for Date and time in 2019, usually towards mid-December.

\*Note: Because of the format of Year 5 in the revised program, these dates may be varied at the supervisor's discretion, particularly if students have been engaged in off-campus clinical rotations during the relevant session.

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<sup>7</sup> UNSW Virtual Handbook: <http://www.handbook.unsw.edu.au>

<sup>8</sup> UNSW Timetable: <http://www.timetable.unsw.edu.au/>

## 6. Assessment Tasks and Feedback

Task	Knowledge & abilities assessed	Assessment Criteria	% of total mark	Date of		Feedback		
				Release	Submission	WHO	WHEN	HOW
Research presentation*	Ability to distil key information & present in an engaging way to peers	Scientific content, communication clarity and style, evidence of teamwork	15	n/a	Mid-December	Attendees and peers	Immediately after presentation	Verbal comments
Written Research Reports:	Ability to access & assess relevant literature for the research topics	The literature review will be marked by the supervisor based on: <ul style="list-style-type: none"> <li>• Demonstrated knowledge of topic area</li> <li>• Content and organisation, coverage of key issues</li> <li>• Depth and breadth of analysis and discussion</li> <li>• Correctness and scope of references</li> <li>• Appropriate style and presentation</li> </ul>	55	n/a	Literature review: 15 <sup>th</sup> August	Supervisor	31 <sup>st</sup> August (comments only)	Marks and comments (December)
Literature review** & written project report*	Ability to distil key information and present in a scientific format	This report will be marked by two independent assessors, based on: <ul style="list-style-type: none"> <li>• Organisation, clarity and format in appropriate scientific style</li> <li>• Content of report, coverage of key issues</li> <li>• Depth and breadth of discussion</li> <li>• Appropriate use of figures and tables</li> <li>• Correctness and appropriate use of references</li> </ul>			Written project report: 28 <sup>th</sup> November	Supervisor	December	

Supervisor report	Ability to work as part of a team and contribute to research	<p>Each student will be assessed by the supervisor on the following:</p> <ul style="list-style-type: none"> <li>• Involvement and engagement in project planning</li> <li>• Contribution to pilot studies and developing research methods</li> <li>• Attendance at project meetings</li> <li>• Contributions to preparation of literature review and ethics application</li> <li>• Involvement and engagement in conduct of project</li> <li>• Contribution to data collection, collation and statistical analysis</li> <li>• Attendance at project meetings</li> <li>• Contributions to seminar and report preparation</li> <li>• Evidence of teamwork</li> </ul>	30	n/a	Mid-December			
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\*Only one joint submission from the group is required. Individual assignments are not expected.

\*\*Because of the format of Year 5 in the revised M.ClinOptom/BSc program, these dates may be varied at the supervisor's discretion, particularly if students have been engaged in off-campus clinical rotations during the relevant terms.

## 7. Additional Resources and Support

<b>Text Books</b>	n/a
<b>Course Manual</b>	n/a
<b>Required Readings</b>	n/a
<b>Additional Readings</b>	As indicated for preparation of the Literature Review – see supervisor
<b>Recommended Internet Sites</b>	See supervisor
<b>Societies</b>	n/a
<b>Computer Laboratories or Study Spaces</b>	n/a

## 8. Required Equipment, Training and Enabling Skills

<b>Equipment Required</b>	No equipment is required to be provided by the student. See supervisor to discuss research equipment to be used in the project.
<b>Enabling Skills Training Required to Complete this Course</b>	Students who have not completed the ELISE course are advised to do so before commencing this course. Competence in information retrieval, familiarity with acceptable referencing styles, and an appreciation of the nature and risks of plagiarism will be assumed in this course. See also Section 11 of this Course Outline for more information about academic honesty and plagiarism. Induction into laboratories may be required

## 9. Course Evaluation and Development

Student feedback is gathered periodically by various means. Such feedback is considered carefully with a view to acting on it constructively wherever possible. This course outline conveys how feedback has helped to shape and develop this course.

Mechanisms of Review	Last Review Date	Comments or Changes Resulting from Reviews
Major Course Review	<i>n/a</i>	The Research Project courses and were first presented in 2010 and continue, with new course numbers

myExperience <sup>11</sup>	<i>n/a</i>	<p>These courses were reviewed under the CATEI system after their second delivery in 2011 (Research Project 5B), and then alternatively every year: Research Project 5A in 2012 and 2014, and Research Project 5B in 2013 and 2015. Very few responses were received from students, limiting the value of this feedback. Nevertheless, respondents raised concerns about the difficulty of fitting the requirements of the Research Projects around their variable timetable of clinical commitments, and the lack of time available to complete the course requirements. Concerns were also raised about the variation in expectations and workloads between different projects/supervisors.</p> <p>To address these student concerns, project allocations since 2012 were brought forward to February to allow a longer lead time for project planning in collaboration with the project supervisor. The Course Outline now strongly recommends the early submission of ethics applications, and specifically provides links to key deadlines and dates for these submissions. In addition, variability in the deadline for submission of the final research report has been specifically articulated in the Course Outline to clarify the requirements and limitations for this key date. Finally, since 2014, potential supervisors have been advised about the expected hours of student commitment to the project, in an attempt to reduce excessive variability in project scope.</p>
Other	<i>n/a</i>	<p>Informal feedback was sought from students and supervisors at the end of 2010 to guide changes in the organisation and structure of these courses in 2011. As a result the use of independent assessors for the research project report was introduced in 2011, and relative marks assigned to course components were varied.</p>

<sup>11</sup> myExperience process: <https://teaching.unsw.edu.au/myexperience>

## 10. Administration Matters

<p><b>Expectations of Students</b></p>	<p>It is expected that all students will participate fully in the design, conduct and reporting of their allocated research project within their assigned pair, and will attend all scheduled group meetings with their research supervisor.</p> <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: IT Service Centre <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>
<p><b>Assignment Submissions</b></p>	<p>Assignments should be submitted via Moodle (electronic submission) or directly to the supervisor. This includes completed laboratory reports and logs which should be scanned/photographed and submitted via Moodle.</p> <p>A completed copy of the Assignment Attachment Sheet must be attached to each assignment before submission, and signed by all group members.</p> <p>Note that the School's policy on Late Submission of Assignments means that there are significant penalties for late assignment submission – these penalties will be applied unless you make a formal submission for Special Consideration (see below).</p> <p>Marked assignments can be collected from your research supervisor</p> <p>The School Policy on Submission of Assignments (including penalties for late assignments) and the Assignment Attachment Sheet are available from the School office (RMB3.003) and the School website at: <a href="http://www.optometry.unsw.edu.au/current/policies-and-procedures">http://www.optometry.unsw.edu.au/current/policies-and-procedures</a></p>

<p><b>Work Health and Safety<sup>12</sup></b></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>
<p><b>Assessment Procedures</b></p> <p><b>UNSW Assessment Policy<sup>13</sup></b></p>	<p style="text-align: center;"><b>SCHOOL OF OPTOMETRY AND VISION SCIENCE, UNSW SUPPLEMENTARY EXAMINATION INFORMATION, 2019</b></p> <p>There are two circumstances whereby a supplementary examination may be granted:</p> <p><b>COMPETENCY IN DOUBT</b> 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> 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</p>

<sup>12</sup> [UNSW OHS Home page](#)

<sup>13</sup> [UNSW Assessment Policy](#)

<sup>14</sup> [Student Complaint Procedure](#)

	<p>after the problem occurs and <b>within three working days of the assessment to which it refers</b>. 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. <b>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</b> (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><b><u>It is the responsibility of the student to consult the web site or noticeboard to ascertain 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.</u></b></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><u>SUPPLEMENTARY EXAMINATIONS FOR 2019 WILL BE HELD AS FOLLOWS:</u></b></p> <p><b>Not applicable for this course</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. <b>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.</b></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> <p>Please note the above applies to OPTM and VISN courses only. Any information on supplementary examinations for servicing courses (e.g. CHEM****) is the responsibility of the School conducting the course.</p> <p>* Stage 4 includes courses in the first year of the MClinoptom program.</p>
<p><b>Equity and Diversity</b></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>

	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.		
<b>Student Complaint Procedure<sup>14</sup></b>	<b>School Contact</b>	<b>Faculty Contact</b>	<b>University Contact</b>
	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>15</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>15</sup> [University Counselling and Psychological Services](https://www.counselling.unsw.edu.au/)

## 11. UNSW Academic Honesty and Plagiarism

### What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own.

\*Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered to be plagiarism.

Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via:

<https://student.unsw.edu.au/plagiarism>

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

\* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† Adapted with kind permission from the University of Melbourne