Course Outline

OPTM8514/28

Research Project A/B

Optometry and Vision Science

Faculty of Medicine & Health

Summer/Term 2/ Term 3, 2022

1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Mark Willcox	m.willcox@unsw.edu.au	By appointment	m.willcox@unsw.edu.au
Project Supervisors	As allocated			

2. Course information

Units of credit: 4*3 = 12 in total

Pre-requisite(s): OPTM6412 and OPTM6422 and enrolment in program 3182 or 8095

Teaching times and locations: To be set in consultation with Project Supervisors

2.1 Course summary

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).

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.

2.2 Course aims

The course aims to introduce the student to optometric and vision science research and to develop skills in research methods and critical analysis.

2.3 Course learning outcomes (CLO)

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

1. Conduct a thorough literature review
2. Prepare a research proposal and Human Research Ethics Application
3. Design and implement a research plan
4. Collect and analyse data
5. Present research orally and as a poster at a research presentation day
6. Write a scientific report of their research findings, usually based on format of a scientific paper

Students will also have the opportunity to:

- Use effective communication skills to present information in a convincing manner

- Show strong information literacy skills by conducting an analytical literature review

Work collaboratively to explore a research topic.

2.4 Relationship between course and program learning outcomes and assessments

Course Learning Outcome (CLO)	LO Statement	Program Learning Outcome (PLO)	Related Tasks & Assessment
CLO 1	Conduct a thorough literature review	PLO 3182: 3, 4, 6, 7 PLO 8095: 3, 4, 6, 7	Written research report Literature review Supervisors report
CLO 2	Prepare a research proposal and Human Research Ethics Application	PLO 3182: 1, 2, 3, 5, 6, 7 PLO 8095: 1, 2, 3, 5, 6, 7	Written research report Literature review Supervisors report
CLO 3	Design and implement a research plan	PLO 3182: 1, 3, 5, 6, 7 PLO 8095: 1, 3, 5, 6, 7	Research presentation Written research report Supervisors report
CLO 4	Collect and analyse data	PLO 3182: 5, 6, 7 PLO 8095: 5, 6, 7	Research presentation Written research report Literature review Supervisors report
CLO 5	Present research orally and as a poster at a research presentation day	PLO 3182: 1, 2, 3, 4 PLO 8095: 1, 2, 3, 4	Research presentation Written research report Literature review

			Supervisors report
CLO 6	Write a scientific report of their research findings, usually based on format of a scientific paper	PLO 3182: 1, 2, 3, 4, 5, 6, ,7 PLO 8095: 1, 2, 3, 4, 5, 6, ,7	Research presentation Written research report Literature review Supervisors report

3. Strategies and approaches to learning

3.1 Learning and teaching activities

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.

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.

3.2 Expectations of students

Expectations of Students	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. 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. 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. For more information or if you are having connection or access problems, see:

	IT Service Centre www.it.unsw.edu.au/ Telephone: 02 9385 1333 Email: itservicecentre@unsw.edu.au

4. Course schedule and structure

Some of this information is available on the *Online Handbook*[1] *and the UNSW Timetable*[2].

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, 5 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 November 2021 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 (August 2022)*

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 (August 2022)*. 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 (November 2022).* 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 2022, usually towards end November, early 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.

[1] UNSW Virtual Handbook: http://www.handbook.unsw.edu.au

[2] UNSW Timetable: http://www.timetable.unsw.edu.au/

5. Assessment

5.1 Assessment tasks

Task	Length	Weight	Due Date
Assessment 1: Research presentation – one pre group	5 minute presentation in front of peers, supervisors and other A poster outlining your research project viewed during the day of the research presentation All day event – 9-4pm	15	2nd December 2022
Assessment 2a: Written research report - one per group	Generally or <10,000 words. Size of a typical scientific paper in Optometry – such as in the journals Eye & Contact Lens; Contact Lens and Anterior Eye; Clinical and Experimental Optometry. Introduction: 3-4 paragraphs Materials and methods: as needed Results: as needed Discussion: ≤ 3 pages References: as needed Many Projects will require submission of an ethics application to the appropriate ethics committee of UNSW. As this is essential if the Project involves human participants (or animal if appropriate), this application also forms part of this assessment. If no ethics is required, students will need to complete an online (Moodle) ethics quiz	35	20th November 2022
Assessment 2b: Literature review – one per group	≤ 20 pages– double spaced, 12 font, including figures, tables and references	20	10th August 2022
Assessment 3: Supervisors report – separate marks for each group member	Assessment by the supervisor on involvement, engagement, contribution, attendance	30	23rd November 2022

Further information

UNSW grading system: student.unsw.edu.au/grades

UNSW assessment policy: Assessment Policy

UNSW assessment information: student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

Task	Standards
Research presentation	Scientific content of poster and presentation, communication clarity and style, evidence of teamwork, ability to discuss research presented in the poster. On the day there will be markers of both the presentations and posters – these will usually be members of the School or visiting scientists. Peers will also grade the presentations.
Research report	Ability to format and submit on time an ethics application, Ability to reply promptly to questions raised by ethics committee (if no ethics is needed – score on the online ethics quiz – scoring at least 70%) Knowledge of topic area, Depth and breadth of discussion, Content and organisation, Coverage of key issues, Appropriate use of figures and tables, Correctness and appropriate use of references, Organisation, clarity and format in appropriate scientific style and presentation.
Literature review	Demonstrated knowledge of topic area, Content and organisation, coverage of key issues, Depth and breadth of analysis and discussion, Correctness and scope of references, Appropriate style and presentation
Supervisors report	Involvement and engagement in conduct of project, Contribution to data collection, collation and statistical analysis, Attendance at project meetings, Contributions to seminar and report preparation

5.3 Submission of assessment tasks

Assignment Submissions	Assignments should be submitted to supervisors electronically (preferably via email) by 5pm Sydney time on the due date. Laboratory reports and logs, which should be scanned/photographed, should be submitted to supervisors at the end of the data collection. If your assignment requires submission of a pair of glasses/contact lenses, these may be submitted via the Assignment submission box at the Student Enquiry office (North Wing, Rupert Myers Building, Room 3.003), however the accompanying report should be submitted via Moodle. Marked assignments will be posted electronically. 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:

	https://www.optometry.unsw.edu.au/study/undergraduate-degrees/important-information-and-policies

Assessment Procedures **UNSW Assessment Policy**[1]	**SCHOOL OF OPTOMETRY AND VISION SCIENCE, UNSW** **SUPPLEMENTARY EXAMINATION INFORMATION, 2022** **SPECIAL CONSIDERATION** 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. **UNSW operates under a Fit to Sit/ Submit rule for all assessments. If a student wishes to submit an application for special consideration for an exam or assessment, the application must be submitted prior to the start of the exam or before an assessment is submitted. If a student sits the exam/ submits an assignment, they are declaring themselves well enough to do so**. The application must be made via Online Services in myUNSW. Log into myUNSW and go to My Student Profile tab > My Student Services > Online Services > Special Consideration and attach student's supporting documentation (such as a medical certificate). **CHRONIC ISSUES AND PRE-EXISTING CONDITIONS** If you have chronic issues and pre-existing conditions, we recommend you apply for Educational adjustments for disability support through Disability Services. Register for Equitable Learning Support (formerly Disability Support Services) at https://student.unsw.edu.au/els/register 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: optometry@unsw.edu.au). You must also submit a Request for Special Consideration application as detailed on the UNSW website: https://student.unsw.edu.au/special-consideration **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.** This information will be available on the School web site at https://www.optometry.unsw.edu.au/ (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. **SUPPLEMENTARY EXAMINATIONS FOR 2022 WILL BE HELD AS FOLLOWS: FOR TERM 1:** • **STAGE 1-4* COURSES: WEDNESDAY, 18 MAY 2022 – FRIDAY, 20 MAY 2022** • **THERE WILL BE NO SUPPLEMENTARY EXAMINATIONS FOR STAGE 5 STUDENTS IN TERM 1 2022** **FOR TERM 2:** • **STAGE 1-4 COURSES: WEDNESDAY, 31 AUGUST 2022 - FRIDAY, 2 SEPTEMBER 2022** • **THERE WILL BE NO SUPPLEMENTARY EXAMINATIONS FOR STAGE 5 STUDENTS IN TERM 2 2022** **FOR TERM 3:** • **STAGE 5 COURSES ONLY: DURING THE WEEK OF MONDAY, 12 DECEMBER 2022 – FRIDAY, 16 DECEMBER 2022** • **STAGE 1-4* COURSES: WEDNESDAY, 14 DECEMBER 2022 - FRIDAY, 16 DECEMBER 2022**

	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 still applies.** 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. 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. * Stage 4 includes courses in the first year of the MClinOptom program. **School of Optometry and Vision Science, UNSW, 23 November 2021**

[1]UNSW Assessment Policy

5.4. Feedback on assessment

Task	**Feedback**		
	WHO	**WHEN**	**HOW**
Research presentation	Course Convenor	Prizes (1st, 2nd, 3rd, and peoples choices) – on the day of the presentation Marks – within two weeks of presentation data	Marks
Research report	Project Supervisor(s)	Within two weeks of submission	Marks
Literature review	Project Supervisor(s)	Within two weeks of submission	Marks
Supervisors report	Project Supervisor(s)	Within two weeks of submission	Marks

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Further information about referencing styles can be located at student.unsw.edu.au/referencing

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.[2] 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**,** and
- The *ELISE* training site 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.

[2]International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

7. Readings and resources

1. Literature on the Research Topic in peer reviewed scientific publications – or elsewhere if needed

8. Administrative matters

Required Equipment, Training and Enabling Skills

Equipment Required	No equipment is required to be provided by the student. See supervisor to discuss research equipment to be used in the project.
Enabling Skills Training Required to Complete this Course	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. Go to UNSW Library/Online Training/LOIS and complete the complete series of tutorials. Those with poor English skills (relating to writing, oral delivery, grammar, expression) should visit the Learning Centre for help Induction into laboratories may be required

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		**Comments or Changes Resulting from Reviews**

	Last Review Date	
Major Course Review	n/a	The Research Project courses were first presented in 2010 and continue, with new course numbers
myExperience2	n/a	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. 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. 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.

Work Health and Safety[3]	Information on relevant Occupational Health and Safety policies and expectations both at UNSW and if there are any school specific requirements. 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: https://www.optometry.unsw.edu.au/about/information-and-policies/work-health-and-safety
Equity and Diversity	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 Equitable Learning Services (formerly Disability Support Services). Appointments with Equitable Learning Services are now being offered as video, phone and in person at the Kensington Campus. Contact ELS via Email: els@unsw.edu.au or https://student.unsw.edu.au/els

	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.		
Student Complaint Procedure[4]	**School Contact**	**Faculty Contact**	**University Contact**
	Dr Alex Hui alex.hui@unsw.edu.au Tel: 9385 9228	Professor Gary Velan **Senior Vice Dean, Education** Tel: 9385 1278	Student Conduct and Integrity Unit Telephone 02 9385 8515, Email: studentconduct@unsw.edu.au
Psychology and Wellness[5]	Information on Psychology and Wellness (Formerly known as Counselling and Psychological Services) is available at: https://www.counselling.unsw.edu.au/ Tel: 9385 5418		

[2]myExperience process: https://teaching.unsw.edu.au/myexperience

[3]UNSW Work Health and Safety

[4]Student Complaint Procedure

[5]Psychology and Wellness

9. Additional support for students

- The *Current Students* Gateway: student.unsw.edu.au
- Academic Skills and Support: student.unsw.edu.au/skills
- Student Wellbeing, Health and Safety: student.unsw.edu.au/wellbeing
- Equitable Learning Services (formerly Disability Support Services): https://student.unsw.edu.au/els
- UNSW IT Service Centre: https://www.myit.unsw.edu.au/