

HESC4561

Research Internship A

Course Outline
Term 2, 2022

School of Health Sciences
Faculty of Medicine & Health

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1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Carolyn Broderick	c.broderick@unsw.edu.au	By appointment Wed & Thurs WWW Level 2, Rm 221	By email

2. Course information

Units of credit: 6 UOC

- Pre-requisite(s):
- MATH1041 - Statistics for Life and Social Sciences (UG)
- HESC4501 - Exercise Physiology Research Seminars (UG)
- WAM equal or above 65

Teaching times and locations:

- Introductory lecture: Week 1, Wednesday (2-hour session)
- Oral Presentations seminar: Wed or Thurs Week 5 (2-hour session)
- Regular meetings with research supervisor

Course information can be found at: <http://timetable.unsw.edu.au/2022/HESC4561.html>

2.1 Course summary

This course comprises the first half (10 weeks) of a 20 week (2 term) experimental research project, supervised by a suitable staff member of a research institution. The project may encompass a systematic review, project development, clinical or laboratory experiments, statistical analyses, and oral and written reporting. Projects may also involve 'placements', possibly outside UNSW, in the form of externally funded research programs, industrial placements or other programs either during the usual session or in the session breaks. In these cases, students will require an academic member of staff to supervise the internship. The course will develop the student's ability to formulate research questions, conduct in-depth studies, analyse and present data, and write reports.

2.2 Course aims

- To develop an understanding of integrity in research
- To develop critical thinking in relation to the scientific literature
- To foster independence in undertaking research projects, such as collecting and analysing scientific and clinical data or conducting a systematic review
- To provide skills in effective scientific communication (oral & written)

2.3 Course learning outcomes (CLO)

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

1. Develop a research question based on review of existing scientific or clinical research
2. Develop an understanding of current techniques used in biomedical research
3. Synthesise, organise and present data from critical review of the literature
4. Develop skills in scientific communication, including oral and written skills
5. Communicate and work effectively with peers, colleagues and stakeholders

2.4 Relationship between course and program learning outcomes and assessments

Course Learning Outcome (CLO)	LO Statement	Related Tasks & Assessment
CLO 1	Develop a research question based on review of existing scientific or clinical research	Supervisor Report Oral Presentation Research Protocol
CLO 2	Develop an understanding of current techniques used in biomedical research	Supervisor Report Oral Presentation Research Integrity Quiz Research Protocol
CLO 3	Synthesise, organise and present data from critical review of the literature	Supervisor Report Oral Presentation Research Protocol
CLO 4	Develop skills in scientific communication, including oral and written skills	Supervisor Report Oral Presentation Research Protocol
CLO 5	Communicate and work effectively with peers, colleagues and stakeholders	Supervisor Report Oral Presentation Research Protocol

3. Strategies and approaches to learning

3.1 Learning and teaching activities

1. Introductory lecture – delivered online
2. Research Integrity module (online)
3. Student oral presentations (face to face)
4. Regular meetings with research supervisor to plan research, set timelines, problem solve, analyse & synthesise data & discuss conclusions (face to face & online)

3.2 Expectations of students

Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities.

From these 150 hours, subtract the time required for course attendance (4 hours - i.e., 2 hour introductory lecture and 1 x 2 hour seminar) and the time needed to complete the research integrity modules, background reading and to prepare the presentation and written assessments (~ 66 hours or 6 – 7 hours per week). The difference equates to regular meetings with research supervisor, assisting with data collection and analysis, and other relevant tasks (e.g. learning experimental procedures), for up to 8 hours per week across 10 weeks (i.e., 80 hours total).

Attendance is compulsory at:

- Oral Presentation seminar: Wednesday (2-hour session). Students are expected to be actively involved in critiquing their colleagues' presentations and asking questions in Q & A session at end of each presentation

An introductory lecture will be delivered online in Week 1 and recorded. This will give an overview of the course and students are encouraged to reflect on their proposed projects and seek feedback.

4. Course schedule and structure

This course has minimal contact hours (2 hours introductory lecture and 2 hr oral presentation workshop). You are expected to spend an additional 14 hours per week of non-class contact hours to complete online modules, meet with supervisors, collect data, undertake readings & prepare oral and written assessments.

Week [Date/Session]	Topic	Activity	Related CLO
Week 1	Introduction to Research Internship	Introductory Lecture	
Week 3	Research Integrity	Research Integrity Quiz	CLO 2 - Develop an understanding of current techniques used in biomedical research
Week 5	Presenting scientific findings	Oral Presentation	CLO 4 - Develop skills in scientific communication, including oral and written skills
Week 10	Research Supervision	Submission: Supervisor Report	CLO 5- Communicate and work effectively with peers, colleagues and stakeholders

5. Assessment

5.1 Assessment tasks

Assessment task	Length	Weight	Mark	Due date and time
Assessment 1: Research Integrity Quiz - This assessment consists of 2 online research integrity modules and quizzes designed to help prepare students to undertake a research project.		20%	30	5pm Friday 17 th June 2022
Assessment 2: Oral presentation - This will include background information, research project aims, hypothesis and methods to be used or developed. The presentation will be of 10 minutes duration, with 3 minutes question time and 2 minutes verbal feedback provided after the presentation. The feedback provided will guide your research direction and subsequent completion of the Research Protocol assignment.	10 mins duration	30%	20	Submit PowerPoint presentation by 9am Monday 27 th June 2022. Oral presentation Wed or Thurs 29 th /30 th June 2022
Assessment 3: Research Protocol - A written assignment of 2000 words, detailing the intended research protocol. This includes background information, relevance and importance to exercise physiology, project aims, hypothesis and methods to be used or developed. It will also include a statistical analysis plan and a conclusion.	2,000 words	40%	50	11:59pm 29 th July 2022
Assessment 4: Supervisor Report - A report by the internship supervisor commenting on the student's performance throughout the term. A rubric will form the basis for the Supervisor Report.	N/A	10%	10	5pm Friday 5 th August 2022

Further information

UNSW grading system: <https://student.unsw.edu.au/grades>

UNSW assessment policy: <https://student.unsw.edu.au/assessment>

5.2 Assessment criteria and standards

ASSESSMENT TASKS

Assessment Criteria

Assessment Task 2 – ORAL PRESENTATION

The following marking scheme will be used to grade your presentation

Background	Max. Marks = 4	Unsatisfactory (mark = 0)	Below average (0.25)	Satisfactory (0.5)	Good (0.75)	Excellent (1.0)	Mark
Adequate justification for internship	1						
Aims of internship adequately explained	1						
Scope of internship explained	1						
Able to be understood by an educated but non-expert audience	1						
Content	Max. Marks = 4	Unsatisfactory (mark = 0)	Below average (0.5)	Satisfactory (1.0)	Good (1.5)	Excellent (2.0)	Mark
Information is relevant to topic	2						
Relevant background information included	2						
Slides appearance & Presentation Style	Max. Marks = 10	Unsatisfactory (mark = 0)	Below average (0.5)	Satisfactory (1.0)	Good (1.5)	Excellent (2.0)	Mark
Slides attractive	2						
Font size & colour easy to read	2						
Use of pictures, diagrams & tables	2						
Structure is logical & easy to follow	2						
Confident voice, audience engagement & timing (not too short or long)	2						

Conclusions	Max. Marks = 2	Unsatisfactory (mark = 0)	Below average (0.25)	Satisfactory (0.5)	Good (0.75)	Excellent (1.0)	Mark
Summary of potential challenges	1						
Ability to interpret & answer questions	1						

Assessment Task 3 – RESEARCH PROTOCOL

The Research Protocol is to be a concise overview of the research topic, any hypotheses and the methods and procedures being used, with a discussion on outcome measures and statistical analysis

Background	Max Marks = 10	Unsatisfactory (mark = 0)	Below average (0.5)	Satisfactory (1.0)	Good (1.5)	Excellent (2.0)	Mark
Concise & relevant	2						
Clinical relevance of the research project / systematic review adequately explained	2						
Scope of the research project / systematic review adequately explained	2						
Coverage of appropriate research to date in this area	2						
Explanation of gaps in the literature	2						
Content	Max Marks = 20	Unsatisfactory (mark = 0)	Below average (1.0)	Satisfactory (2.0)	Good (3.0)	Excellent (4.0)	Mark
Accurate description of study design	4						
Accurate description of methods & procedures	4						
Description of outcome measures – primary and secondary	4						
Accurate description of power & sample size calculations (if appropriate)	4						
Accurate description of how data will be analysed	4						
Quality of the writing	Max Marks = 20	Unsatisfactory (mark = 0)	Below average (1.0)	Satisfactory (2.0)	Good (3.0)	Excellent (4.0)	Mark

Clear, fluent writing	4						
Grammar & spelling	4						
Adherence to prescribed format	4						
Written for educated but non-expert reader	4						
Referencing (accuracy & format)	4						

Assessment Task 4 – SUPERVISOR REPORT

(To be completed by the supervisor)

The supervisor is encouraged to discuss this evaluation with the student before sending the evaluation to the course convenor.

Student Name: _____

Supervisor Name: _____

This internship started on (date) _____ and was completed on (date) _____

At (location) _____

Please give a brief summary of the internship:

Student attribute	Excellent (1.0)	Good (0.75)	Average (0.5)	Poor (0.25)	Not applicable (N/A)
<i>Enthusiasm for the experience</i>					
<i>Accuracy and precision in experiments</i>					
<i>Decision-making, judgments, setting priorities</i>					

<i>Attention to detail</i>					
<i>Willingness to ask for guidance</i>					
<i>Persistence to complete tasks</i>					
<i>Data analysis skills</i>					
<i>Ability to synthesize information and communicate it effectively</i>					
<i>Ability to work cooperatively with others</i>					
<i>Ability to create and communicate possible solutions to problems</i>					

Additional comments:

Grade: /10 (scores will be averaged across number of applicable attributes)

Signature of Supervisor and date of evaluation:

5.3 Submission of assessment tasks

Late Submission

Late submissions will be penalized at 5% per day capped at five days (120 hours). Students will not be permitted to submit their assessments after this date.

Special Consideration

If you experience a short-term event beyond your control (exceptional circumstances) that impacts your performance in a particular assessment task, you can apply for Special Considerations.

You must apply for Special Consideration **before** the start of your exam or due date for your assessment, except where your circumstances of illness or misadventure stop you from doing so.

If your circumstances stop you from applying before your exam or assessment due date, you must **apply within 3 working days** of the assessment, or the period covered by your supporting documentation.

More information can be found on the [Special Consideration website](#)

5.4 Feedback on assessment

Feedback to students will be delivered via a number of methods. Following written assignments submitted through Turnitin, scoring will be given in the form of an assessment rubric with comments attached. Following oral presentations, feedback will be delivered in 2 ways; generic feedback to the whole group about strengths and weaknesses & individual feedback (summary of examiners comments) online with grade.

Additional feedback can also be provided via email or face to face when requested. This can be following assessments or as a tool to enable students to adapt and adjust their research direction when challenges arise.

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. Please use Vancouver referencing style for this course.

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.¹ 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 <https://student.unsw.edu.au/plagiarism>, and

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

- The ELISE training site <https://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: <https://student.unsw.edu.au/conduct>.

7. Readings and resources

Useful resources can be found on the Moodle site for this course under the section “Course Resources”

8. Administrative matters

Student enquiries should be submitted via student portal <https://portal.insight.unsw.edu.au/web-forms/>

9. Additional support for students

- The Current Students Gateway: <https://student.unsw.edu.au/>
- Academic Skills and Support: <https://student.unsw.edu.au/academic-skills>
- *Student Wellbeing and Health* <https://www.student.unsw.edu.au/wellbeing>
- UNSW IT Service Centre: <https://www.myit.unsw.edu.au/services/students>
- *UNSW Student Life Hub*: <https://student.unsw.edu.au/hub#main-content>
- *Student Support and Development*: <https://student.unsw.edu.au/support>
- *IT, eLearning and Apps*: <https://student.unsw.edu.au/elearning>
- *Student Support and Success Advisors*: <https://student.unsw.edu.au/advisors>
- *Equitable Learning Services (Formerly Disability Support Unit)*: <https://student.unsw.edu.au/els>
- *Transitioning to Online Learning* <https://www.covid19studyonline.unsw.edu.au/>
- *Guide to Online Study* <https://student.unsw.edu.au/online-study>