
Course Details

Units of Credit 6

Summary of the Course

The biomedical engineering Masters Project allows coursework Masters training either within the School or with collaborating institutions such are selected by the student in consultation with a supervisor conducting the student. If the research topic selected is external to the School/U for an internal GSBmE co-supervisor/assessor. The BIOM9021 project contributes half of a student's normal full-time load. Projects are assessed report in the format of either a thesis or a research paper ready for submission oral or poster presentation may be also required. Performance in this

BIOM9021 is the second half of the 12 UOC research project. BIOM9020 these courses allows a student to undertake the equivalent of BIOM9900 terms. You must discuss the research project with your supervisor and in this BIOM9020. Satisfactory performance in BIOM9020 will enable y

Course Aims

This is the course for the postgraduate masters research projects to be BIOM9020 plus BIO9021 consists of a total of 12 UOC. It allows course research training either within the School or with collaborating institutions the thesis proposal form (see GSBmE website) in consultation with a G their supervisor. A second co-supervisor/assessor must also be nominated proposal forms must be approved by the Head of School.

Course Learning Outcomes

After successfully completing this course, you should be able to:

Learning Outcome	EA Stage 1 Competencies
1. Evaluate and critically review the scientific literature	PE1.1, PE1.2, PE1.3, PE1.4, PE1.5, PE1.6
2. Write a scientific report and communicate scientific findings to an educated audience	PE3.1, PE3.2, PE3.3, PE3.4, PE3.5
3. Design, carry out, analyse and report on research tasks	PE2.1, PE2.2, PE2.3, PE2.4

Teaching Strategies

Your supervisor will guide you through the thesis research plan that y including a review of the literature, research components and scientifi

Assessment

Your scientific manuscript for BIOM9021 will be assessed by (i) your s
assessor. Your scientific manuscript mark will be the average these tw
difference between your two assessors is greater than 10 marks the co
grade will be the weighted average of your assessments from BIOM902
You will receive the same grade for both courses upon completion of B

Assessment task	Weight	Due Date	Course Learning Outcomes Assessed
1. Scientific Manuscript	100%	Tuesday Week 11 at 11:59 pm	1, 2, 3

Assessment 1: Scientific Manuscript

Assessment length:

The author should acknowledge those who have provided funds, reage
training and scientific advice.

Introduction

The introduction should give a clear account of the background for the
or hypothesis tested should be stated. The introduction should be und
Introductions should be written in a funnel style: It begins with the g
addressed. Usually this is the disease or ailment that your research m
procedure that will be improved, or the fundamental scientific questio
paragraph becomes more and more specific, each outlining the need fo
references, with the final paragraph revealing the aim of the research
outlining the contents of the report. For a guideline on writing a hypot
section.

Methods

The methods must be described in enough detail to allow the experime
repeated by an experienced investigator. Give references to establish
and brief descriptions for methods that have been published but are n
substantially modified methods. Identify the apparatus, drugs and che
manufacturer s name and address in parentheses after each item. Des
and define all statistical terms, abbreviations, and symbols. Clear jus
the statistical tests chosen. Specify the computer software used. Whe
selection of the subjects (patients or laboratory animals, including co
number used and other important characteristics of the subjects. If an
compliance with the NHMRC code and UNSW ACEC approved (or other
ethics project number must be included in the methods. If human subje
UNSW HREC or HREA project number must be cited.

Results

Present your results in logical sequence in the text, tables, graphs an
the experimental results should be succinct, but in enough detail to al
and interpreted by the reader. Where group data is presented, the ave
measure of variability (standard deviations, confidence intervals, stan
with the number of observations, observed power, effect sizes and sta
given as appropriate. The rationale for performing the experiments ma
Results section, but conclusions or interpretation of results should no
text all the data that is presented in the tables or graphs. Headed par
presentation of the results.

Work which is integral to the manuscript that has been performed by o
the manuscript but not treated as the student s own work and identifie
should also be clearly disclosed in the Statement of Contribution and

Discussion

In the discussion explore possible mechanisms or explanations for the
and contrast your results with those from other relevant studies, state
explore the implications of the findings for future research. Do not rep

given in the Introduction or the Results sections.

Conclusions

Provide a one paragraph conclusion to your research. This is not a co
succinct summation of your results and whether your hypotheses were
explanation why.

References

Attendance Requirements

There is no official class time for this course. Your face-to-face time
supervisor, as you are expected to meet them at least once per week.
enrolment and registration date.

Course Schedule

View class timetable

Timetable

Date	Type	Content
Study Week: 21 November - 24 November	Assessment	Report Due Tuesday Week 11 11:59 p

Resources

Prescribed Resources

Resources will be made available to help students guide them in their

Extensions

You can apply for special consideration when illness or other circumstances interfere assessment performance.

Other applications for extension of submission of thesis reports (e.g.

1. Discuss the possibility of an extension with your supervisor first.
2. Requests can then be lodged by the student online at https://student.unsw.edu.au/special-consideration. The supervisor will then receive an email asking them to approve, before it is escalated
3. Request must be lodged by Week 6 of term.
4. Panel decision will be made by end of week 7.
5. The decision will be made by a panel consisting of the HoS (or Coordinator, and 1 other person.
6. Students should be alerted to the fact that this is not guaranteed getting an extension.
7. Typically, extensions are granted UP TO 3 weeks. The length of requested and justified by the supervisor. Panel will decide the le

Procedure if you fail

Students have three options.

1. re-enrol for BIOM9020/9021, new project and supervisor
2. re-enrol for BIOM9021 again with the same project - needs consen & student
3. Student does further work, re-submits thesis after a mark of UF has been awarded. Can be re-marked once for a maximum of 50%. If still not satisfactory, then needs to re-enrol.

This last option is only available if the original mark was "e40, OR if t before graduation (regardless of the original mark).

Industry based projects

We encourage students to seek partnerships with industry, so students industry. However, if confidentiality is required, a confidential disclos The agreement will protect the intellectual property rights of the indus Students or academic staff are not authorised to sign confidential disclosure agreements UNSW and are advised to talk to the course coordinator and UNSW leg and signing of the confidential disclosure or research agreement.

Late procedure

In all cases, applications for late submission can be applied for BEFO

discretion of the thesis coordinator but should only be granted in exce
normal, students can also apply through myUNSW for special consider

5 marks will be deducted from the mark for every day late. Penalty applies until the m
course decrease to 50, and further lateness does not result in a fail mark for a
of the thesis (weekends count as days).

Additional support for students

Submission of Assessment Tasks

Laboratory reports and major assignments will require a Non-Plagiarism Declaration Cover S

Assignments should be submitted on time. A daily penalty of 5% of the assignment will apply for work received after the due date. Any assign be accepted. The only exemption will be when prior permission for late the Course coordinator. Extensions will be granted only on medical or extreme circumstances.

Academic Honesty and Plagiarism

PLAGIARISM

Beware! An assignment that includes plagiarised material will receive
plagiarise may fail the course. Students who plagiarise will have their
register and will be liable to disciplinary action, including exclusion f
It is expected that all students must at all times submit their own work
work or ideas of someone else without clearly acknowledging the sourc
plagiarism.

All assessments which you hand in must have a Non-Plagiarism Declaration. This is for
both individual and group work. Attach it to your assignment before su
Coordinator or at the School Office.

Plagiarism is the use of another person s work or ideas as if they were
desirable to use other people s material you should adequately acknow
are and where you found them (giving the complete reference details,
Learning Centre provides further information on what constitutes Plagi
https://student.unsw.edu.au/plagiarism

Academic Information

COURSE EVALUATION AND DEVELOPMENT

Student feedback has helped to shape and develop this course, includ
line evaluations as part of UNSW s as part of UNSW s myExperience p
encouraged to complete such an on-line evaluation toward the end of
provided will be important in improving the course for future students.

DATES TO NOTE

Refer to MyUNSW for Important Dates, available at:
https://my.unsw.edu.au/student/resources/KeyDates.html

ACADEMIC ADVICE

For information about:

- Notes on assessments and plagiarism,
- Special Considerations,
- School Student Ethics Officer, and
- BESS

refer to the School website available at
http://www.engineering.unsw.edu.au/biomedical-engineering/

Supplementary Examinations:

Supplementary Examinations for Term 1 2022 will be held on (TBC) sh

This course outline sets out description of classes at the date the Cou
nature of classes may change during the Term after the Course Outlin
consulted for the up to date class descriptions. If there is any incons
activities between the University timetable and the Course Outline (as
description in the Course Outline/Moodle applies.

Image Credit

https://lupinepublishers.com/biomedical-sciences-journal/

CRICOS

CRICOS Provider Code: 00098G

Acknowledgement of Country

We acknowledge the Bedegal people who are the traditional custodians

Kensington campus is located.

Appendix: Engineers Australia (EA) Professional En Standard

Program Intended Learning Outcomes	
Knowledge and skill base	
PE1.1 Comprehensive, theory based understanding of the underpinnin physical sciences and the engineering fundamentals applicable to the	
PE1.2 Conceptual understanding of the mathematics, numerical analys computer and information sciences which underpin the engineering dis	
PE1.3 In-depth understanding of specialist bodies of knowledge within discipline	
PE1.4 Discernment of knowledge development and research directions engineering discipline	
PE1.5 Knowledge of engineering design practice and contextual factor engineering discipline	
PE1.6 Understanding of the scope, principles, norms, accountabilities sustainable engineering practice in the specific discipline	
Engineering application ability	
PE2.1 Application of established engineering methods to complex eng solving	
PE2.2 Fluent application of engineering techniques, tools and resourc	
PE2.3 Application of systematic engineering synthesis and design pro	
PE2.4 Application of systematic approaches to the conduct and manag projects	
Professional and personal attributes	