



UNSW Course Outline

PHYS4145 Physics Honours Research B - 2024

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General Course Information

Course Code : PHYS4145

Year : 2024

Term : Term 2

Teaching Period : T2

Is a multi-term course? : No

Faculty : Faculty of Science

Academic Unit : School of Physics

Delivery Mode : Research

Delivery Format : Standard

Delivery Location : Kensington

Campus : Sydney

Study Level : Undergraduate

Units of Credit : 6

Useful Links

[Handbook Class Timetable](#)

Course Details & Outcomes

Course Description

This course is only available to students enrolled in the School of Physics Honours Program, and the School's Honours Coordinator must approve enrolment.

Students in this course undertake a full year research project under the supervision of an academic in the School of Physics. Taken in combination with PHYS4144 Physics Honours Research A and PHYS4146 Physics Honours Research C, this course will contribute towards the 24 UoC of research required in the Physics Honours stream at UNSW. Across these 24 UoC of project work, students will be required to submit a research proposal, a literature review, and a final thesis. Students will also be required to present a seminar at the end of their research, which will not contribute to their final mark but is a compulsory component of the degree. There is also a total of 24 UoC of Honours coursework to be completed over the year.

Students who are approved for Honours will need to enrol in this course in the second Term of their Honours year, alongside PHYS4143.

Course Aims

The aim is to develop a critical understanding of the current literature underpinning the honours research project. Students will critically evaluate published literature and develop skills in writing by producing literature review. Students will develop independent research skills by conducting their research project.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Collect and critically assess relevant literature and methodology to address a chosen research topic.
CLO2 : Perform appropriate measurements or calculations in a safe manner in order to address a chosen research question.
CLO3 : Record, analyze and interpret results from experiments and calculations relating the interpretation to the selected research topic.
CLO4 : Communicate disciplinary knowledge in written form

Course Learning Outcomes	Assessment Item
CLO1 : Collect and critically assess relevant literature and methodology to address a chosen research topic.	<ul style="list-style-type: none">• Thesis• Research Proposal• Literature review
CLO2 : Perform appropriate measurements or calculations in a safe manner in order to address a chosen research question.	<ul style="list-style-type: none">• Thesis• Literature review
CLO3 : Record, analyze and interpret results from experiments and calculations relating the interpretation to the selected research topic.	<ul style="list-style-type: none">• Thesis• Literature review
CLO4 : Communicate disciplinary knowledge in written form	<ul style="list-style-type: none">• Research Proposal• Thesis• Literature review

Learning and Teaching Technologies

Moodle - Learning Management System

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Thesis Assessment Format: Individual	85%	
Research Proposal Assessment Format: Individual	10%	
Literature review Assessment Format: Individual	5%	

Assessment Details

Thesis

Assessment Overview

You will complete a written thesis, submitted at the end of the three terms of research.

The thesis will be marked by 2 assessors, one of whom is your supervisor, against School guidelines that ensure quality of research, clarity of expression and scientific merit. These guidelines will be provided to students and staff at the beginning of the project.

As students complete a full-year project, the marks for the three research subjects will be identical, calculated from the research proposal, literature review and final thesis.

Course Learning Outcomes

- CL01 : Collect and critically assess relevant literature and methodology to address a chosen research topic.
- CL02 : Perform appropriate measurements or calculations in a safe manner in order to address a chosen research question.
- CL03 : Record, analyze and interpret results from experiments and calculations relating the interpretation to the selected research topic.
- CL04 : Communicate disciplinary knowledge in written form

Research Proposal

Assessment Overview

You will complete a written research proposal report, due halfway through your first term of research, returned with comments from supervisor and assessor.

The proposal should clearly explain the place of the project in the relevant field and include appropriate references to recent literature. The aims of the project should be clearly formulated and explained. The proposal should explain/stress the significance and the novelty of the intended research and the individual contribution the student will make to this work.

As students complete a full-year project, the marks for the three research subjects will be identical, calculated from the research proposal, literature review and final thesis.

Course Learning Outcomes

- CL01 : Collect and critically assess relevant literature and methodology to address a chosen research topic.
- CL04 : Communicate disciplinary knowledge in written form

Literature review

Assessment Overview

You will complete a written literature review, due at the end of 12 units of credit of research, returned with comments from supervisor.

You will write an extended report covering relevant background / introductory material of your nominated research topic together with a comprehensive survey of associated peer-reviewed publications. The literature review will inform the nature of the research to be undertaken and how it will be used to address an outstanding question in the field. It is anticipated that this will form a first draft of the introductory material of the final thesis.

In addition, you will also be required to include a draft plan of the thesis comprising a chapter / section outline of approximately 1-2 pages.

The suggested length is approximately 15-20 A4 pages (including diagrams, excluding bibliography), but this will depend on individual style and the type of research being undertaken.

The submission must meet minimum standard in terms of quality of presentation, completeness, and quality of content to the satisfaction of the supervisor and Honours Director. The submission will be checked for plagiarism and you will receive written feedback from your supervisor.

As students complete a full-year project, the marks for the three research subjects will be identical, calculated from the research proposal, literature review, and final thesis.

Course Learning Outcomes

- CL01 : Collect and critically assess relevant literature and methodology to address a chosen research topic.
- CL02 : Perform appropriate measurements or calculations in a safe manner in order to address a chosen research question.
- CL03 : Record, analyze and interpret results from experiments and calculations relating the interpretation to the selected research topic.
- CL04 : Communicate disciplinary knowledge in written form

General Assessment Information

Grading Basis

Standard

Course Schedule

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Year coordinator	Michael Schmidt					No	Yes
Administrator	Zofia Krawczyk					No	No

Other Useful Information

Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.
- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the [UNSW Student Code of Conduct Website](#).

Academic Honesty 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 <https://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. 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, plagiarism and the use of AI in assessments can be located at:

- The [Current Students site](#),
- The [ELISE training site](#), and
- The [Use of AI for assessments](#) site.

The Student Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: <https://student.unsw.edu.au/conduct>

Submission of Assessment Tasks

Penalty for Late Submissions

UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Special Consideration

If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: <https://>

Important note: UNSW has a “fit to sit/submit” rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Faculty-specific Information

Additional support for students

- [The Current Students Gateway](#)
- [Student Support](#)
- [Academic Skills and Support](#)
- [Student Wellbeing, Health and Safety](#)
- [Equitable Learning Services](#)
- [UNSW IT Service Centre](#)
- Science EDI Student [Initiatives](#), [Offerings](#) and [Guidelines](#)