PHYS111-25S1
INTRODUCTORY PHYSICS FOR PHYSICAL SCIENCES AND ENGINEERING
15 points, Semester 1 2025

Professor Mike Reid
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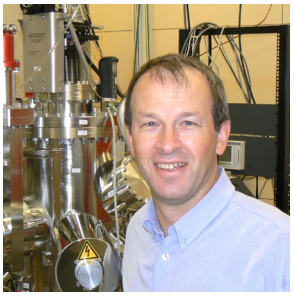
General Queries

Mechanics, Oscillations and Waves



Professor Roger Reeves
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Electricity, Nuclear

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Optics

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Queries about laboratory and tutorial allocations.

Course Objectives: PHYS111 is a course designed for students who do not have a strong background in Physics. Success in PHYS111 will give you a good foundation for PHYS101. PHYS111 is a 'non-calculus' course but some previous knowledge of Physics and Mathematics is helpful. If you have **no** background in Physics or Mathematics, you will have to work hard to keep up. We have reduced the level of mathematics needed in the first six weeks, to allow you to gain those skills in parallel in a MATH course, such as MATH101 or MATH110.

Online Material: This course makes extensive use of *Learn*: http://www.learn.canterbury.ac.nz/. *Learn* is a web-based learning resource. **All course announcements, handouts, and homework will be on *Learn*.**

Workload: A 15-point course requires approximately 150 hours of work (some students may need considerably more to be successful). A guideline is that you should be working on course for at least 10 hours per week, including contact hours.

Here is a guideline for how to spend these hours for PHYS111:

Lectures	3 hours per week (36 hours total)
Laboratories	3 hours, 8 sessions (24 hours total)
Tutorials	1 hour per week (12 hours total)
Homework Quizzes and other study	4 hours per week (48 hours total)
Test A (preparation plus test time)	7 hours
Test B (preparation plus test time)	7 hours
Exam (preparation plus exam time)	16 hours

Course Textbook: Urone, College Physics, second edition**.** The text, and a student solutions manual, is available for **free** at: https://openstax.org/details/books/college-physics-2e

Lectures: Monday, Tuesday, Thursday.

Login to your UC timetable or check the Course Information website before lectures to find the up-to-date location of your classes and to allocate yourself to laboratories and tutorials.

Course Content
Weeks 1-4: Motion in one dimension; Newton's laws; work and energy.
Weeks 5-6: Electrical Circuits.
Week 7: Nuclear physics.
Weeks 8-10: Oscillations and waves; reflection and refraction; light as a wave.
Weeks 11-12: Motion in two dimensions; rotations.

Online Homework Quizzes
There will be 12 weekly homework quizzes on Learn, **starting in week 1.**

The homework will usually have a deadline of 11:59 pm on the Tuesday of the next week. However, you are encouraged to try to complete it before the Monday lecture.

Each week will have the same assessment weight even if they have different numbers of questions. The best 8 weekly marks for pre-and post-tutorial homework, will be counted towards your final grade.

Tutorials
PHYS111 has12 tutorial sessions, **starting on Thursday/Friday of Week 1.**
Tutorial will be small group parallel sessions. Students should allocate themselves to a tutorial via the timetable interface.
You will receive credit for participation and working on the problems. Your mark will be the best 8 tutorials. You will also have an opportunity to ask questions about the homework quiz.
Dropin/Helpdesk
Tutors will be available for the Monday and Tuesday **optional** Dropin Sessions.
You are welcome to discuss online quizzes as well as the course material in general.

Tests and Exam
Tests are scheduled in weeks 5 and 9. For Tests and the Exam you will need to get your calculator approved. There will be announcements on how to get this done.

Grades
Your final grade will be determined as follows:

5%	Online homework quizzes.
5%	Tutorials. Marks for active participation.
30%	Two Term tests of 1 hour.
10%	Laboratory (lab book checkpoint marking)
50%	Final examination of three hours.

A satisfactory performance in the laboratory work and a 40% mark in the final exam are required to pass the course. If your score in the exam improves on your average test mark, the exam will count for 80% of your grade.

Laboratories

Supervisor: Cliff Franklin, Ernest Rutherford 322
cliff.franklin@canterbury.ac.nz

The course includes 8 laboratory sessions of 3 hours each, running through terms 1 and 2. Please allocate yourself to a laboratory stream.
Laboratories start in Week 2.
Please attend the lab stream to which you have been assigned.
Contact Cliff for timetabling problems with Laboratories or Tutorials.

The laboratory work complements the lecture material. Some experiments introduce you to particular experimental techniques. Others illustrate lecture topics. Satisfactory performance in the laboratory work is required to pass the course as a whole.

The laboratories will be in Ernest Rutherford 312.

You must purchase a Physics lab book from the Bookstore before your introductory lab in week 2. The cost is approximately $15.

Absences from Tests and Exam

If you are **absent** from the test or exam, or if you consider that your performance in the test or exam was impaired, then you can apply for ***Special Consideration***. Action SHOULD be taken within 5 days of the assessment.
The link with details can be found at
https://www.canterbury.ac.nz/study/special-consideration/

Note that an individual lab session is NOT available for Special Consideration. If you are absent or have impairment for a lab session, please contact the Laboratory Supervisor.

General Information

The School of Physical and Chemical Sciences has general policies that apply to all courses regarding such matters as Dishonest Practice, Allowed types of calculators, Marks and Grades boundaries, Late Work, Academic Liaison, Assistance for Students with Disabilities, Reconsideration of Grades, Aegrotat Applications, Missing Tests etc. This information is available on the *Physics & Astronomy Undergraduate Courses* section of the Learn site.

Use of AI

The following shall apply for all **assessments** in this course, except where a lecturer has specifically stated otherwise in written instructions for an assessment.
Generative AI Tools Cannot Be Used for This Assessment
In this assessment, you are strictly prohibited from using generative artificial intelligence (AI) to generate any materials or content related to the assessment. This is because students are expected to solve problems and demonstrate knowledge and understanding without the assistance of AI. The use of AI-generated content is not permitted and may be considered a breach of academic integrity. Please ensure that all work submitted is the result of your own human knowledge, skills, and efforts.