

PHY1013S: Physics B for Engineers

Course Information: 2020

PHY1013S: Physics B for Engineers (Oscillations & Waves / Electricity & Magnetism) is a half- year course for first-year students registered in the Faculty of Engineering and the Built Environment.

As a consequence of UCT's emergency response to the COVID-19 pandemic, all lectures, and laboratories will take place in an online (distance learning) mode for the second semester.

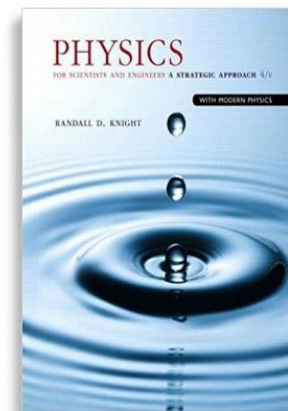
All information and Announcements are posted on the [PHY1013S Vula site](#). Announcements are emailed to students' *UCT email addresses*, which must therefore be active and working!

Syllabus

The syllabus is that of a standard calculus-based introductory physics course for engineers. Details can be found on the PHY1013S Vula site under [Course Outline](#).

Textbook

The prescribed text for PHY1012F / PHY1013S is Randall D. Knight, *Physics for Scientists and Engineers, A Strategic Approach* (4th Ed). Pearson, Addison Wesley. (Earlier editions will usually suffice.)



Course Coordination

- The PHY1013S **Course Convener** and **lecturer** is Mr Dieter Geduld. (Room 3.05, RW James Building, email: dieter.geduld@uct.ac.za). All administrative queries should be directed to him.
- The PHY1013S **Course Tutors** for 2020 are Paul Orim (ormpau001@myuct.ac.za) and Gregor Leigh (gregorleigh@gmail.com), who will be available at designated times (see Vula under Resources/Admin).

Code of Honour

You will be required to read, accept the [Faculty of Science Code of Honour](#). To do this every student **must** complete the 'Code of Honour Pledge' quiz under Tests & Quizzes on the course Vula site. **This Pledge is mandatory.**

Lectures

Lecture videos and associated learning material will be uploaded to the Vula site under the appropriate Lessons tab.

Laboratory

There will be a full complement of lab activities for the 2nd semester, including a lab test. These lab activities will be a 'do at home' format. The [PHY1013S lab calendar](#) can be found on Vula under Resources/Admin.

Students that are repeating may be eligible for a lab exemption. Please complete the [Lab Exemption Application Form](#) (Resources/Admin) and submit the form to Mark Christians – mark.christians@uct.ac.za.

Weekly Problem Sets (WPSs)

Each Monday morning a WPS will be uploaded to the Vula website under Resources/WPS.

- Students are to work through the all the problems (and are strongly encouraged to attempt the extra, textbook problems listed. (Students may consult with each other and should approach the course tutors for help if necessary.)
- During the week, before the deadline (03h00 the next Monday) students must complete and submit the WPS online in Vula (under Tests & Quizzes). Please note Vula will be open for the week from Monday at 08h00 to the following Monday at 03h00 to complete the WPS.
- Once you click "Begin Assessment," you will have unlimited opportunities to complete and submit the WPS. **If, for ANY reason, at the deadline (03h00 the next Monday) you have not submitted, Vula will automatically submit your WPS, regardless of whether you have answered all the questions. This submission will be graded.**

Marks thus obtained for these weekly problem sets will contribute 10% towards the final course mark.

Model solutions to the questions will be published in due course on Vula under Resources/WPS Solutions.

Short Leave: If a student wishes to be granted an exemption or extension for a course requirement as a consequence of a planned short absence from the course, a completed [Short Leave Application Form](#), with supporting documentation stapled behind it, must be submitted to the Course Convener at least three (3) working days prior to the period in question. Irreversible plans (such as flight bookings) must not be made before such leave has been approved.

Examinations

There will be no final exam in November.

Assessment

All assessments are of a continuous nature and will be graded for you to receive feedback on your progress and performance. The final course mark will be made up as follows:

Assessment	Description	Weighting	Comment
Class Tests (x4)		75%	(See Vula for scope.)
Weekly Problem Sets		10%	
Laboratory record	Laboratory	7.5%	
	Laboratory test	7.5%	Test based on practicals covered / Full report due
Total		100%	

Test Schedule

Time: 08h00 – 08h00 (24 hours)

Venues: Your location

Dates: Test 1 08h00 Thursday 27 August – 24 hours
Test 2 08h00 Thursday 17 September – 24 hours
Test 3 08h00 Thursday 22 October – 24 hours
Test 4 08h00 Thursday 19 November – 24 hours

Pass or Fail Requirements

To be awarded a final grade code of “Pass” for this course, students must have:

- Participated in all class tests,
- Completed and submitted all lab activities, with an overall average of at least 50%,
- Completed and submitted the lab test,
- Submitted at least 80% of the WPSs, and
- Achieved an aggregate of 50% or greater.

There will be no final grade beyond the codes “Pass” or “Fail”. This is in accordance with the overarching decision made by UCT for S courses in 2020.

Reassessment

There are no reassessments.