

UNIVERSITY OF CAPE TOWN
DEPARTMENT OF PHYSICS
PHY1031F - 2020 COURSE INFORMATION SHEET – COVID-19 UPDATE

As a consequence of UCT's emergency response to the COVID-19 pandemic, all lectures, laboratories and tutorials will take place in an online (distance learning) mode for the second quarter (Q2). For the remainder of the course, all assessments will be of a "continuous" nature. There will be no final examination in June. All assessments will be graded both for DP purposes and for you to receive feedback on your progress and performance. Students who have met the DP requirements and who achieve an aggregate of 50% or greater will be given a final grade code of "Pass". There will be no final grade beyond the codes "Pass" or "Fail". This is in accordance with the overarching decision made by UCT for F courses in 2020. Please see the revised DP requirements and assessment table below.

INTRODUCTION

PHY1031F and PHY1032S are two semesterised half-courses taken by students who do not plan to continue beyond the first year in Physics. These courses are mainly for students majoring in the Chemical, Molecular and Cellular Sciences and in the Biological, Earth and Environmental Sciences who need Physics as an auxiliary subject. Geomatics students typically complete these courses in their 2nd year.

PHY1031F/1032S should **not** be taken by students who wish to continue with Physics. Students who expect to continue with Physics should register for PHY1004W in their first year.

LECTURES

The lecturers for the course are Dr Spencer WHEATON (4T4 RW James), Dr Dale TAYLOR (4.05 RW James) and Dr Tom LEADBEATER (5.12 RW James). They will prepare teaching resources (voice-over slides, videos, summary notes etc.) to facilitate remote learning. As far as possible, these activities will be asynchronous (i.e. will not require students to be active at specific times, but rather give students the freedom to work when they are able to). Online consultation options with the lecturers and the course tutor (through Vula Chat and Vula Forums) will be advertised via Vula.

COURSE STRUCTURE

<i>Section</i>	<i>Proportion of Course</i>	<i>Lecturers</i>
Vibrations and Waves (VW)	32%	Dr S.M. Wheaton Dr D.L. Taylor
Properties of Matter (PM)	12%	Dr S.M. Wheaton Dr D.L. Taylor
Mechanics (M)	56%	Dr S.M. Wheaton Dr T. Leadbeater

(refer to detailed Schedule for Term 2)

Vibrations & Waves: simple harmonic motion, damped oscillations, forced oscillations, resonance, travelling waves, superposition, standing waves, sound waves, sound intensity, Doppler effect

Properties of Matter: hydrostatics, hydrodynamics

Mechanics: vectors, kinematics, forces, dynamics, momentum, impulse, work, energy, power, collisions, rotation, rotational dynamics, torque, angular momentum, static equilibrium, gravitation

TEXTBOOK

The prescribed textbook for the course is College Physics from OpenStax, ISBN 1938168003, www.openstax.org/details/college-physics. This book is available for free to view on the web or to download in PDF format.

A recommended textbook for the course is Knight, Jones & Field: *College Physics* (Pearson). This was the textbook used in previous years and would be a good resource.

LABORATORY/TUTORIAL SESSIONS

The laboratory activities for the remainder of the course will take the form of “do-at-home” tasks with online submission. Students will have several days to complete each task. A laboratory test will also be run. More details will follow shortly.

The three remaining tutorials will take the form of online discussion sessions on problem solving.

WEEKLY PROBLEM SETS

Each Friday morning a set of questions will be issued on Vula under “Tests and Quizzes”. Students are to work through all the problems and submit their answers by the end of the next week. (Students may consult with each other and approach the course tutor for help if necessary.) Worked solutions to the questions will be published on Vula for you to check your own work.

COURSE TUTOR

The course tutor is Ms Ameerah Camroodien. She will assist students with the course material during advertised online consultation sessions.

CLASS TESTS

There will be three further class tests (each covering approximately 3 weeks of material). These tests will run in the weeks starting **11 May**, **1 June** and **29 June**. The tests will each be 1 hour in length, and students will have a 5-day period in which to take each test. There will be no final examination.

PLAGIARISM DECLARATION

All students will need to complete an honour pledge stating that they will honestly complete all assignments within the guidelines set for each activity.

ATTENDANCE AND EXEMPTIONS

Participation in practicals, problem sets and tests is compulsory. All students are expected to complete all laboratory reports, other homework assignments, and the laboratory test. If you are ill and miss any grade-carrying activity, then a medical certificate from a registered medical practitioner needs to be emailed to the Course Convenor within 2 days of returning to health, and a short form will need to be completed (available on the PHY1031F Vula site). Students missing a test due to illness will be asked by the course convenor to write a make-up test within a few days. Plans will also be made to hand in missed homework or other assignments. Exceptions are only granted in very rare circumstances.

PHY1031F COURSE ASSESSMENT

<i>Component</i>	<i>% of Final Mark</i>
(1) Class Test 1	20 %
(2) Class Test 2, 3 and 4	25 %
(2) Laboratory Record	15 %
(3) Weekly Problem Sets	25 %
(4) Laboratory Test	15 %

Students who have met the DP requirements and who achieve an aggregate of 50 % or greater will be given a final grade code of “Pass.” There will be no final grade beyond the codes “Pass” or “Fail”. This is in accordance with the overarching decision made by UCT for F courses in 2020. There are no sub-minima in any of the separate assessments.

Please see the revised DP requirements table below.

DP CERTIFICATES

A student will be regarded as having “duly performed” the work of the course, if they have met the DP requirements for this course. DP certificates will be withheld from students who fail to meet these minimum requirements. An appeal against a DP not being awarded is first made to the course convenor, and thereafter potentially to the Head of Department (by email).

The following are the **DP requirements for this course:**

1. Participation in all class tests. Students missing a test for medical reasons will be required to write a make-up within three days of returning to health, in consultation with the course convenor.
2. A minimum of 50% for the laboratory component of the course.

REASSESSMENT

There will be no reassessment in this course.

COURSE ADMINISTRATION

1.	<i>Vula & Email:</i> All notices and solutions will be posted on the PHY1031F Vula site. Please ensure that you check your UCT email account regularly, or else set up an auto-forward to your preferred email account.
2.	<i>Course Marks:</i> All marks can be viewed on the Physics Marks WebApp: http://webapp-phy.uct.ac.za/webmarks/1031f
3.	<i>Formula Sheets:</i> Formula sheets will be provided for tests.

PHY1031F COURSE CONVENER

Dr Spencer Wheaton

21 April 2020