UNIVERSITY OF CAPE TOWN DEPARTMENT OF PHYSICS PHY1032S 2023

INTRODUCTION

PHY1031F and PHY1032S are two semesterised half courses taken by students who do not plan to continue beyond the first year in Physics. The courses are mainly for students majoring in chemical, biological and environmental subjects, who need Physics as an auxiliary subject.

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

LECTURES

PHY1032S lectures are held daily in the third period (10h00-10h45) in RW James LT 3A, starting on Monday 24th July.

COURSE STRUCTURE

	Code	Subject	No of Lectures	Lecturer
PHY1032S	EM 1	Electricity and Magnetism 1	15	Prof. H. Weigert
	OP/TP	Optics and Thermal Physics	15	Dr. Z. Ndabeni
	EM 2	Electricity and Magnetism 2	15	TBA
	MP	Modern Physics	10	TBA

TEXTBOOK

The prescribed textbook for the course is College Physics from OpenStax, ISBN 1938168003, <u>www.openstax.org/details/college-physics</u>. This book is available for free to view on the web or to download in PDF format. Print versions will be available for purchase through the Department of Physics.

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

Students are to allocate either Monday <u>OR</u> Wednesday <u>OR</u> Thursday afternoons (14h00 to 17h00) to PHY1032S practical / tutorial sessions (e.g., students choosing Wednesday should be free every Wednesday afternoon for PHY1032S practical / tutorial activities).

All questions regarding the laboratory organisation should be directed to Mr Mark Christians, the Lab Attendant, in the first instance. His office is in the Physics I Lab behind the large chalkboard.

Students who have previously attended PHY1032S (or an equivalent UCT Physics course) may apply for exemption from the practical component of the course – **note that exemption will not be given for the tutorial component**. Exemption is NOT granted automatically. Students wishing to apply for exemption must complete a lab exemption form (available on Amathuba within the 'Course Administration' unit) and submit it to Mr Mark Christians within the first two weeks of term by email (mark.christians@uct.ac.za).

Tutorials will alternate with laboratory (or practical) activities. During tutorial sessions, students will tackle unseen problems with assistance from tutors.

(Refer to the detailed course schedule)

WEEKLY PROBLEM SETS

Problem sheets will be handed out once a week, normally on Fridays. Completed problem sheets must be handed in by 10h00 on the following Friday for grading by the course tutors. Solutions to problem sheets will be posted on the PHY1032S Amathuba site.

COURSE TUTORS

The course tutors for PHY1032S are Alice Roux, Moses Mlangeni and Sumari Faul.

DATES OF CLASS TESTS

The class tests are listed on the Lecture Schedule. The date of the final examination will be published later. Students who are not able to write the tests on <u>medical grounds</u> will be given the opportunity, on <u>production of a medical certificate</u>, to write the test at another time. <u>Students will not be excused from tests</u>.

COURSE ASSESSMENT

	Component	% of Final Mark
(1)	Weekly Problem Sets	6 %
(2)	Class Tests (2) held during a lecture period (45 min)(12% each)	24 %
(3)	Laboratory Record	10 %
(4)	Laboratory Practical Test	10 %
(5)	Final Examination (2 hours)	50 %
	TOTAL	100 %

The pass mark is 50%. There is no exam subminimum.

DP CERTIFICATES

A student will be regarded as having "duly performed" the work of the course, and thus qualify to write the final examination, if they have met the DP requirements for this course. DP certificates may be withheld from students who fail to meet these minimum requirements. Students who are not awarded DP certificates will not be permitted to write the final examination. The DP list will be published no later than one calendar week before the last teaching day of the course, and all grades recorded on that day will be used to consider the DP status of each student. Grades recorded after this date will be used in cases of appeal when a DP is not awarded. An appeal against a DP not being awarded is first made to the course convener, and thereafter potentially to the Head of Department (by email). The following are the **DP requirements for this course:**

- 1. A minimum of 35 % overall for the coursework component of the course (as determined one week before the last teaching day of the course).
- 2. Attendance at all class tests. Students missing a test for medical reasons will be required to write a make-up within three days of returning to classes, in consultation with the course convener.
- 3. A minimum of 50 % for the laboratory component of the course.

COURSE ADMINISTRATION

1.	<i>Amathuba & Email:</i> All notices and solutions will be posted on the PHY1032S Amathuba 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 Amathuba Grades.
3.	<i>Formula Sheets:</i> Formula sheets will be provided for tests and the exam.

REASSESSMENT

The Physics Department will reassess students who achieve an overall final mark of between (and including) 45 % and 49 % for PHY1032S, i.e., students who are graded with an S after the final exam (e.g., 47 FS).

The supplementary examination will be held in January 2024. The mark obtained in the supplementary examination will replace the mark scored in the final examination and will then be averaged with the class record to determine the final aggregate after the supplementary.

Students whose final aggregate after the supplementary is 50 % or higher will be graded as 50 UP SP – a so-called "unclassified" pass in the subject. Those students whose final aggregate after the supplementary is below 50 % will fail the course (such a student with, e.g., a result of 47 FS before the supplementary will have their final result after the supplementary recorded as 47 SF).

PHY1032S COURSE CONVENER

Dr Spencer Wheaton

Room 4T4 RW James Building

24 July 2023