

# UNIVERSITY OF KWAZULU-NATAL: PMB CAMPUS

## SCHOOL OF CHEMISTRY & PHYSICS

# COURSE GUIDELINES 2015

## PHYS131 (Semester 1) AND PHYS133 (Semester 2)

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1. **WELCOME** to the Physics discipline on the Pietermaritzburg campus of the University of KwaZulu-Natal. The department is part of the School of Chemistry & Physics and is located on the second floor of the Science Building on the main campus. We hope that you have an enjoyable and stimulating time with us.
2. PHYS131 (first semester) and PHYS133 (second semester) are respectively 16-credit and 8-credit modules, and they combine to form a three-quarter first-year course in physics (24 credits). The PHYS131 module is based on 48 lectures and 12 practicals while the PHYS133 module has 24 lectures and 10 practicals. These modules are designed for students intending to major in Chemistry, Dietetics, Life Sciences, Agriculture and anybody else who requires an ancillary first-year course in physics.
3. **Tutorials:** Lecturers do tutorial work in every period. Students may consult with the lecturer if they have any problems with the material. Non-compulsory help tutorials will be scheduled during the week so that students with problems can seek the help of tutors. Saturday morning tutorials will also be run from 10h00 to 12h00 and again students with problems can attend these for extra help.(See also point 4. below.)
4. **Practicals:** PHYS131 AND PHYS133 all have one prac. per week. These are held in the John Fairbrother laboratory which is situated at the Ridge Road end of the main physics corridor. Pracs start **promptly** at 14h10 and normally end about 17h30. In addition to experimental work, supervised tutorials are sometimes done during the practical class. PHYS131 students will need to attend on either a Tuesday, Wednesday or Thursday afternoon. You will be advised at the opening lecture when to attend in the first week and how the allocations will work.
5. **Notes and manuals:** You will be supplied with printed notes for most of your lectures in physics. You will be charged the cost price of these items; your University fee account will be debited automatically when you register for the course. These charges (inclusive of VAT) will be approximately R170 per semester. You will also be provided with a laboratory practical manual and a laboratory report book, the cost of which is included in your course fee.
6. **Text-book:** Since printed notes are provided, we do not prescribe a text-book. However, you are strongly advised to be in possession of a textbook for the purpose of 'reading around' the various topics discussed in lectures. There are many good first-year textbooks available and there is not much to choose between them. However, the following book is recommended:

- *D C Giancoli, Physics: Principles with applications (any edition will do).*

**Use the books in the University library if you are unable to afford your own copy.**

7. **Tests:** Three theory tests are scheduled for PHYS 131 and similarly for PHYS 133. Times and dates for the theory tests are provided elsewhere and on the noticeboard.

8. **Class Record:** This is determined using the marks you obtain during the semester, calculated as follows:

- Theory tests (appropriately weighted) contribute 80%.
- Your prac. reports, the prac. test and tut. work (also appropriately weighted) contribute 20%.

**The class record counts 30% of your final examination mark for the module.**

10. **Duly Performed Certificate (D.P.):** Only students who qualify for a D.P. are allowed to write the end-of-semester examinations. Details on how to qualify for a D.P. are provided overleaf. Notice that one of the factors is that your class record **must not be less than 40%**.

11. **Course coordinator:** The course coordinator for PHYS131 and PHYS133 is Dr. S. Mthembu. If you have any queries or problems relating to any aspect of the module you may consult with him. He is based in office P7, School of Chemistry & Physics, 2<sup>nd</sup> Floor Main Science Building. Tel: 033 260 5351/5329 or email: [mthembus3@ukzn.ac.za](mailto:mthembus3@ukzn.ac.za).

12. **Website:** A website dedicated to this module can be accessed via the following link:

<http://physicspmb.ukzn.ac.za>

Students are requested to visit this page on a regular basis as it will be updated with relevant information, model answers as well as past tests and exams. It serves, together with the noticeboards in the school, as a means of official communication between the school and the student.

13. **Online assessments:** Students may be required to complete a certain number of practical and theoretical assessments online as part of their DP requirement. The results of these online assessments may also be used in the calculation of the class record.

14. **Exams:** PHYS131 students will write a 3-hour exam for 180 marks of which 100 % can be MCQ and may include some practical work. PHYS133 students will write a 2 hour exam for 120 marks 100 % can be MCQ and include some practical work. An exam format for all exams will be provided closer to the time. Students will also receive a data sheet for all tests and exams. A copy of this data sheet is available for download from the physics website.

**DO NOT LOSE THIS HANDOUT. YOU WILL NEED TO REFER TO IT PERIODICALLY THROUGHOUT THE YEAR.  
KEEP IT IN A FILE.**



## FINAL EXAMINATION MARK WEIGHTING FOR PHYS131 AND PHYS133

- Theory examination (PHYS131: 180 marks (3 hour paper) & PHYS133: 120 marks (2 hour paper) ):  
70 marks
- Class record: 30 marks
- **TOTAL:** **100 MARKS**

### DULY PERFORMED CERTIFICATE (D.P.)

To be allowed to write the end-of-semester examinations in physics, you must have 'duly performed' the work of the class. This means:

- **80% attendance** at lectures and tutorials (morning session), at all afternoon practical classes (unless excused<sup>‡</sup> after presentation of a valid medical certificate to a minimum attendance of 80%).
- Submitting written practical reports for all practicals attended.
- **100% attendance** at all class tests (unless excused<sup>‡</sup> upon presentation of a valid medical certificate).
- Obtaining a minimum of 40% for the class record.

**YOU WILL NOT BE ALLOWED TO WRITE THE FINAL EXAMS IF YOU FAIL TO MEET THE ABOVE REQUIREMENTS.**

<sup>‡</sup> Students who wish to be excused on medical grounds from a practical or a class test are required to fill in a condoned absence form. This Form will be available online to all students on the Schools website. All supporting documentation must be attached to the application and handed into the CTO. Students may be asked to catch up the practical on a different afternoon, or write a make-up test after they return to University. This will be at the discretion of the course coordinator.