

PY1007: Physics for Engineers I

LECTURES: Kane Building G1

TUESDAY
12 - 13

THURSDAY
13 - 14

Lecturers

Dr. Richard Green (me!)
r.green@ucc.ie
1st Floor, Kane (Science) Building

Dr. Síle Nic Chormaic (**Module Coordinator**)
Direct all queries to: s.nicchormaic@ucc.ie
Room 216a, 2nd Floor, Kane (Science) Building



GENERAL THINGS

Please note the (Emergency) Exit nearest to you. In case of an alarm do not run, but walk swiftly through the exit nearest to you and assemble on the car park in front of the Kane building.



**Turn off your mobile phone
before (!) the lecture!**

→ No texting!



**No smoking, no eating and
no drinking during the lecture!**



From 1st December 2003, it's illegal to use a hand-held mobile phone when driving and you may be fined £200. This can be increased to a maximum of £1000 (£2,000 for drivers of taxis, buses and coaches) if the police can prove it. You can also be prosecuted for using a hand-held mobile phone if you fail to have proper control of your vehicle. These concerns are highlighted when using any phone and the penalties can include disqualification, a large fine and up to 6 months imprisonment in some cases. If you are at all unsure, it is an offence to use a hand-held mobile phone while driving. It is also an offence to cause or permit a driver not to have proper control of a vehicle. For more information visit www.thetrafficpolice.gov.uk

PY1007: Physics for Engineers I

24 x 1h lectures + compulsory laboratories

Objective:

To introduce students to the basic theory of physical processes with practical examples of their application in engineering

Total Marks: 100 (5 credits)

End of Year Written Examination: 70

Continuous Assessments: 30 (20 laboratory + 10 homework)

End of Year Written Examination in May: 90 minute paper

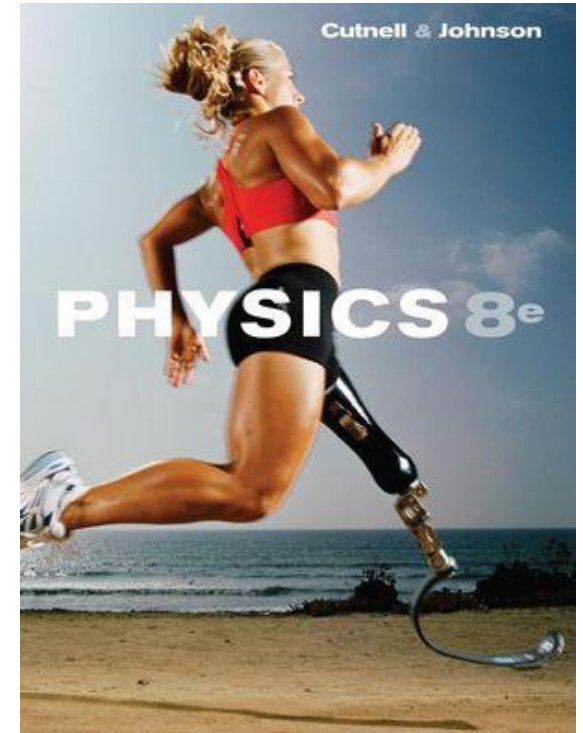
NB: Continuous Assessment is **compulsory**. If you fail your labs you won't be permitted to sit the end of year written examination. If you sit the examination, you won't be allowed to pass it if you have a **failed lab element**. Non-attendance at $\geq 20\%$ of your labs classifies as a failed lab element!!

RECOMMENDED TEXTBOOKS

Physics by Cutnell and Wiley
Publisher: John Wiley & Sons

Paper version available to buy in the college book shop in Áras na Mac Léinn.

Students are advised to buy the electronic version of this book for €20 – more details will be given out next week. This will provide you with a host of study aids for the course.



Copies of book are also in the college library or second-hand copies may be available from second year students.

**If you BUY the book (new or second hand) please inform
Dr. Nic Chormaic next week or by email at s.nicchormaic@ucc.ie**

WEB SUPPORT

Information on the Lectures, Laboratories, Problem Sets, etc.
Will be posted on the web for the **first few weeks**:

<http://www.physics.ucc.ie/nicchormaic/Teaching.html>

Write this address down so you have Thursday's lecture printed before you come to class!

Please print a copy of notes before **each lecture – it saves you having to write everything down!!**

DISCLAIMER: Please note that the webpage and the information and links provided on it are neither comprehensive nor necessarily 100% correct. In particular, the availability of lecture slides does not mean that lectures do not have to be attended!

PRE – REQUISITES

Physics: none

(but well taught school physics and applied mathematics is an advantage)

Mathematics: 1) simple algebra and arithmetic manipulation

2) scientific notation

3) trigonometry

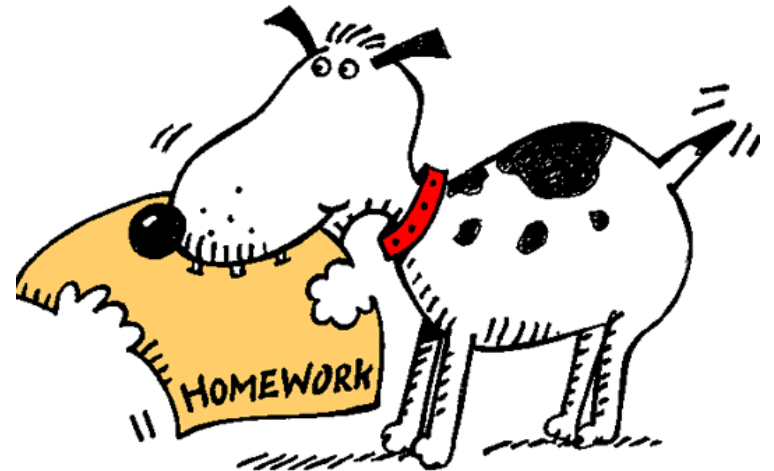
4) simple vector analysis

5) differentiation of simple functions,
e.g. $f(x)=x^3$, $f(x)=\sin(x)$, *etc.*

6) integration of simple functions (later in the course)

Homework Assignments – Advised – 10% of grade

- Full details will be given next week by Dr. Nic Chormaic.
- Will commence during Week 3 of the semester.
- Each assignment is worth 1% of your final grade at the end of the year.
- Provide invaluable training in problem solving for the end of year exam next May.
- Excuses for late work not accepted...



LABS – Compulsory – 20% of final grade

- Held in Kane Building – 1st Floor laboratories.
- You will be assigned to a specific lab session. A list of names and times will be posted on the 1st Floor, Kane Building in the coming days.
- Labs will likely commence on the week of 4th October.
- Details of other items needed will be given during a later lecture.

