Department of Physics Year 1 Science Communication Project Module Phys123 Electricity and Magnetism



Project Submission Date: 22nd November 2010, Student Office, 307 Oliver Lodge

Oral Presentation Date: 26th November 2010, Tutorial Group Tutor Feedback to Students: 3rd December 2010, Tutorial Group Feedback review (PHYS113): Week 11 (beginning 6th December)

Introduction and Topics

The Science Communication Project for Phys123 consists of a Written Report and an Oral Presentation to your tutorial group, which together contribute 15% to the assessment of the module. Suggested topics for the Report and Presentation are:

- Accelerating particles using lasers.
- The technology of the mobile phone and mobile phone networks.
- How nerves transmit signals.
- Wind, wave and solar power, the energy sources of the future?
- Musical instruments and electromagnetism.
- Applications of electrostatics.
- Particle accelerators in medicine.
- The Northern Lights (Aurora Borealis).
- Lightning.
- The National Grid: electricity generation and distribution in the UK.
- The life and work of Michael Faraday.
- Oliver Lodge and the development of radio communication.

If there is a topic related to the Electricity and Magnetism module in which you are particularly interested and which you would like to write about, but which is not on the above list, please talk to Tim Greenshaw about whether you can make this the subject of your Report and Presentation.

It is suggested that you discuss the topics you would like to write about and present with the other members of your tutorial group so that you either choose different topics, or different aspects of a topic (e.g. different aspects of wind, wave and solar power generation): this makes the presentations to the tutorial groups more interesting!

Written Report

The Written Report should be in your own words and be between 1000 and 1500 words in length (give the word count on the document!). Your Report should be at the level of a Scientific American or New Scientist article, i.e. it should be comprehensible to a scientifically interested member of the general public. It should contain appropriate diagrams, figures and tables. Your Report must be handed in to the Student Office in the Oliver Lodge Laboratory by 15:00 on Monday 22nd November 2010.

The assessment criteria for the Written Report are as follows:

- The Report should provide a clear introduction to the topic chosen and explain the main points of interest in a manner comprehensible to a scientifically literate member of the general public.
- The Report should be well structured and written in clear English with correct punctuation and spelling.
- The Report must be properly researched, using libraries and the internet: all sources used in the Report (articles in scientific journals, sections in books, web-sites, etc.) should be cited.

Oral Presentation

The Oral Presentation should be 8 minutes long and cover the main points of the topic described in your Written Report. The presentation will be given to your tutorial group on Friday 26th November. Please note that your Report will not be returned to you for the tutorial, so you should make a copy of it for yourself before handing it in to the student office! The Presentation will be made using only a blackboard and whatever other materials you bring with you, as there are not enough data projectors for all the tutorial groups. For example, if you want to show complex diagrams, please take print-outs of these to the tutorial.

The assessment criteria for the Oral Presentation are as follows:

- The Presentation must be planned to fit into the time available.
- The Presentation should provide an overview of the topic under discussion and have a clear introduction and summary. ("Say what you are going to say, say it, then say what you have said.")

Deadlines

The Written Report must be handed in to the Student Office in the Oliver Lodge Laboratory by 15:00 on Monday 22nd November 2010.

The Oral Presentations will be given in your tutorial on Friday 26th November 2010.

Written and verbal feedback will be provided to students in their tutorial session on Friday 3rd December.

Your feedback will be reviewed within a PHYS113 session in Week 11 (beginning 6th December)