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| Module Title: | Physics 2 |
| Academic year: | 2009 2010 |
| Credit Value: | 7 |
| Pre- requisites: | None |
| Assessment: | Final written exam 50% Practical assessment 35% Continuous assessment 15% |
| Aims | <p>This module aims to provide a foundation in three key areas of Physics (optics, electricity, and modern physics). The laboratory course aims to provide students with the skills to perform basic measurement and analysis techniques on a range of experiments based around the theory course.</p> <p>The module also aims to develop an appreciation for the scope of these areas of specialisation and an awareness of current developments in these fields. Upon successful completion of this module the student will also have an understanding of the role of physics in other scientific disciplines</p> |
| Module Content | <p>Optics Electricity Modern Physics - Atomic and Nuclear Physics</p> <p>Throughout the course emphasis will be placed on applications and instruments.</p> <p>A practical course, which supports and reflects the aims and learning outcomes of this module will run concurrently with lectures and tutorials</p> |

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| Intended Learning Outcomes: (September 2007) | At the end of this module the students will be able to: <ol style="list-style-type: none">1. Explain the progression of wavelength, frequency, energy per photon, and colour of light across the electromagnetic spectrum.2. Explain the operation of optical instruments such as microscopes using geometrical optics3. Calculate the wavelength of light using interferometric techniques.4. Analyse electrical circuits composed of Ohmic resistors and voltage sources.5. Calculate electric and magnetic fields caused by charges and currents.6. Explain the emission of electromagnetic radiation by excited atoms.7. Describe the principle characteristics of different types of nuclear radiation. |
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