Overview
This module develops academic and transferable skills in problem solving in physics, in mathematical modelling of physical systems, in numerical/computational work applied to physics, and in study skills. It is a core module for the level one programme "Physics and Astronomy (Gateway)".

Aims & Objectives
The second gateway skills module is designed build upon the Gateway Physics 1A module. Students will develop their understanding of the core material covered in PH1012 as well as continuing to practise and enhance their basic mathematical skills developed in semester 1. This is brought about by a series of workshops, supported self-study sessions as well as group exercises covering topics designed to complement PH1012.

Learning Outcomes
By the end of this module, students should

- have developed their fundamental subject knowledge and be able to discuss physics with their peers;
- be able to work independently and as part of a group;
- have experienced different methods of studying;
- have enhanced their communication skills by applying their subject knowledge to a particular topic and presenting their finding to their peers at an appropriate level.

Synopsis
Problem solving: peer instruction tutorials, problem creation and regular problem solving workshops relevant to PH1012. Independent research into a chosen area of physics.

Study Skills: The production of weekly revision summaries, regular reflection of own learning and supported study sessions.

Communication: Scientific writing with the production of a short presentation and a poster on a popular Physics topic.

Pre-requisites
Entry to Gateway to Physics and Astronomy Programme

Anti-requisites
None

Assessment
Coursework = 100%

Made up of problem solving and study skills exercises (30%), scientific reporting (50%), practical experiments (20%)

(Reassessment 60% new assignments, 40% carried through from semester)

Additional information on continuous assessment etc

Recommended Books
Please view University online record:
http://resourcelists.st-andrews.ac.uk/modules/ph1503.html
General Information
Please also read the additional information in the School’s pre-honours handbook.