St Benedict's Sixth Form

A Level Physics

Course Description

Physics is a challenging subject, which teaches you to think. It combines well with other Science subjects, and with Mathematics and Further Mathematics. Student's will develop an understanding of the principles which govern our universe, ranging from the smallest known particles as they study sub-atomic structure, to the largest possible scale of our universe. The topics studied include electricity, motion and mechanics, waves and optics, particle physics and nuclear physics.

Physics builds upon the skills developed at GCSE, and begins to add the mathematical analysis of many of the concepts studied previously. Alongside the theoretical work, students will undertake a number of practical activities across a range of different topics.

Skills Attained

Physicists are problem solvers. Their analytical skills make physicists versatile and adaptable so they work in interesting places. Physics brings a broad perspective to any problem, and develops thinking skills that can be applied to any new context.

Alongside these analytical skills, Physics develops the application of mathematical skills to problems, and requires the ability to work practically. Developments in Physics are rarely made by a single person, and the development of teamwork and leadership skills are essential for a successful student of Physics.

Assessment

Assessment is by examination. At the end of year 12 two internal exams will be taken, each exam being 1 hour 30 minutes, this gives you an understanding of your progress and is an advantage when applying to universities as you already have example grades. At the end of the course you will sit three exams, each 2 hours in length. The exams will cover both theoretical ideas and understanding of practical physics.

You will also complete 12 required practicals throughout the course leading to a practical endorsement.



Progression

Physics is considered to be a facilitating subject by the Russell Group universities so opens up options in a wide range of courses and can lead to jobs in numerous different fields.

The problem solving and analytical skills developed are useful in many different disciplines. Medical degree courses favour candidates with Physics, radiography benefits hugely from an understanding of Physics and finance related courses and jobs frequently recruit from those with a background in Physics. If you are considering engineering, Physics is essential for many courses.

Computer Science, Medicine, Engineering Journalism, Architecture, Aeronautics, Climatology – the list of career paths opened up by choosing Physics is endless.

For more information on careers and the work of physicists visit the Institute of Physics Website at http://www.iop.org/careers/

Entry Requirements

Grade 6 in 2 GCSE Sciences (including Physics) or 6-6 in Combined Science;
Must also study A Level Maths

Exam Board: AQA

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