



## SUBJECT: Physics IB Higher

**HEAD OF DEPARTMENT:**

Dr F Wall

**EXAM BOARD AND SYLLABUS NUMBER:**

IBO / QAN: 60131809

**SYNOPSIS OF CONTENT:**

The course comprises a central core of study for HL and SL which covers the following topics:

1. Measurements and uncertainties
2. Mechanics
3. Thermal physics
4. Waves
5. Electricity and magnetism
6. Circular motion and gravitation
7. Atomic, nuclear and particle physics
8. Energy production

Higher level students cover the additional units:

9. Wave phenomena
10. Fields
11. Electromagnetic induction
12. Quantum and nuclear physics

Students also study one extension module, which may be astrophysics, engineering physics, imaging or relativity.

**WHY STUDY THIS SUBJECT?**

Physics helps us understand the universe around us, from the tiniest subatomic particle to the largest galaxy and beyond. It also helps us understand how technology around us works. Physics develops mathematical problem solving skills and logical thinking. It helps us frame questions in a way that can be answered, and discover answers for ourselves.

**SELF STUDY ADVICE / USEFUL WEBSITES:**

<https://studynova.com/exam-preparation/ib-physics-hl/>

**HOW IS IT ASSESSED?**

Paper 1 - 1 hour - 40 multiple choice questions on core and AHL topics. 20%

Paper 2 - 2¼ hours - A data based question, several short answer questions and 2 extended response questions. - 36%

Paper 3 - 1¼ hours - Section A two or three short answer questions based on experimental skills and techniques and analysis and evaluation of unseen data. These questions are linked to the core and AHL material

Section B - several short answer and extended

**ADDITIONAL INFORMATION / CAREER OPPORTUNITIES**

Physics provides an exciting opportunity for capable mathematicians to solve problems with a real world context. It is highly valued qualification for university entry and for careers that involve a mathematical skill set.

Physics is a required subject (with maths) for engineering. It is a recommended subject for Computer science and Maths. Many people working in economics and finance have a background in physics because of the maths used.

<p>response questions from the extension module - 24%</p> <p>Internal assessment of an individual investigation which will involve practical work. - 20%</p>	<p><b>SPECIFIC MATRICULATION REQUIREMENTS</b></p> <p>Grade 6 in GCSE Physics or grade 66 in GCSE Combined Science: Trilogy, with Grade 6 in GCSE Mathematics</p>
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