

PHYSICS





The Year 11 Physics course develops knowledge, understanding and skills relevant to the study of motion, energy in its different forms and how we describe and measure electricity and magnetism and their interrelated effects.

The Year 12 course provides avenues for students to apply the concepts they were introduced to in Year 11 to motion in two dimensions, electromagnetism, theories of light, the atom and the Universe.

CONTENT





Year 11

The Year 11 course consists of four modules.

-  **Module 1** Kinematics
-  **Module 2** Dynamics
-  **Module 3** Waves and Thermodynamics
-  **Module 4** Electricity and Magnetism

Year 12

The Year 12 course consists of four modules.

-  **Module 5** Advanced Mechanics
-  **Module 6** Electromagnetism
-  **Module 7** The Nature of Light
-  **Module 8** From the Universe to the Atom

COURSE REQUIREMENTS

In addition to the study of core modules, students are provided with 15 hours of course time for **Depth Studies** in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts. A Depth Study may be one investigation/activity or a series of investigations/activities. Depth Studies may be included in one module or across several modules. **Practical investigations** are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year. Students will be assessed on three tasks. Details of the assessments are to be confirmed.

Physics can be studied by itself or with one or more of the other science courses. This course is designed for those students who have a demonstrated a substantial achievement level in Stage 5 Science. Students who have not demonstrated significant success in Science in Years 9 and 10 should think carefully before choosing a Stage 6 Science course.

Success in a Stage 6 Science course also requires students to commit a significant amount of individual time to the review of scientific ideas explored in class time. For every hour spent in class students should do at least 45 minutes of work at home through planned study and wide reading from a variety of sources. This time increases as students approach assessment tasks.