PHYSICS LEVEL 3

## **PREREQUISITES**

Satisfactory performance in Level 2 external Physics exams including at least one AS at Merit level or better and not fewer than 12 credits in total. A pass in AS 91261 (Algebra) or AS 91262 (Calculus) is also required.

If entry requirements are not met, an interview with the HoD or Teacher in Charge is required.

### **COURSE OUTLINE**

The Level 3 Physics course investigates each of the externally assessed topics and at least two of the internally assessed topics.

(Externally assessed - 3 hour exam)

- mechanics the study of centre of mass; momentum in 2 dimensions; impulse circular motion; rotational motion; simple harmonic motion; energy (6 credits)
- waves the study of the Doppler effect; physics of music; light (4 credits)
- electrical systems the study of internal resistance; capacitors and inductors; AC circuits (6 credits)

(Internally assessed)

- Carry out a practical investigation to test a physics theory relating two variables in a non-linear relationship. (4 credits)
- Demonstrate understanding of the application of physics to a selected context. (3 credits)
- Demonstrate understanding of Modern Physics. (3 credits)

### **ASSESSMENT**

External assessment 10 - 16 credits Internal assessment 7-10 credits

# **WHERE DOES IT LEAD?**

To university study - science degrees, medicine, engineering. Prerequisite for engineering, optometry and architecture and other courses. See careers' teacher for latest information. Gives exemptions in many Polytechnic courses at Trade and NZ Certificate level.

### **CONTRIBUTION**

A Year 13 Physics workbook is required. This is a compulsory purchase and costs about \$30. It contains notes and questions to complete.

# 

Mr O'Neill