**Ringwood Secondary College**

**2017 Course Planning Document**

# VCE Unit 3 Physics

## Time Allocation

This unit of work will consist of approximately 100 hours of which at least 50 hours will be class time. **To complete this unit of work satisfactorily, students must complete each of the following learning outcomes.**

## Learning Outcomes

### Outcome 1

On completion of this unit the student should be able to analyse gravitational, electric and magnetic fields, and use these to explain the operation of motors and particle accelerators and the orbits of satellites. To achieve this outcome the student will draw on key knowledge outlined in Area of Study 1 and the related key science skills on pages 11 and 12 of the study design.

### Outcome 2

On completion of this unit the student should be able to analyse and evaluate an electricity generation and distribution system. To achieve this outcome the student will draw on key knowledge outlined in Area of Study 2 and the related key science skills on pages 11 and 12 of the study design.

### Outcome 3

On completion of this unit the student should be able to investigate motion and related energy transformations experimentally, analyse motion using Newton's laws of motion in one and two dimensions, and explain the motion of objects moving at very large speeds using Einstein's theory of special relativity. To achieve this outcome the student will draw on key knowledge outlined in Area of Study 3 and the related key science skills on pages 11 and 12 of the study design.

## Assessment Tasks

**1. SAC 1: AoS 1 test**

The student is required to complete a one period VCAA styled test.

**Weighting:** This task is worth 6% of the overall grade. **Time allocated to task**: 1 period

**Due: Term 1, Week 5**

**2. SAC 2: AoS 2 Practical Investigations**

The student is required to conduct a series of four practical investigations and submit laboratory reports for each of them.

**Weighting:** This task is worth 6% of the overall grade. **Time allocated to task:** 4 periods

**Due**: **Term 1, Week 9**

**3. SAC 3 AoS 3 Data analysis**

The student is required to visualise and analyse a number of sets of experimental data.

**Weighting:** This task is worth 6% of the overall grade **Time allocated to task**: 1 period

**Due: Term 2, Week 5**