Physics 1&2

What is it and why should I do it?

Physics means ‘knowledge of nature’. It is the science that studies the laws of nature that govern our universe. Topics covered include thermodynamics and climate change, electricity and circuits, the big bang theory and the fate of the universe, nuclear physics, motion and related forms of energy and forces. The subject will enrich your understanding of science that drives our modern society and explains the natural world we live in.

Physics is a challenging and rewarding subject where students will explain the physical world. It examines models and ideas used to make sense of the world and which are sometimes challenged as new knowledge develops. By looking at the way matter and energy interact through observations, measurements and experiments, physicists gain a better understanding of the underlying laws of nature. Physics is used in many fields that may not usually be associated with physics. They include engineering, medicine and health, computer science and technical professions such as electricians, mechanics and sound engineers.

In Unit 1 & 2 of Physics, students get to explore the exciting aspects of the small - how is the atom made up? What are those things called Quarks, Leptons, the Higgs-Boson, ... What about the really large - how big is the universe? How did it start? When will it end? How can we apply some of these concepts to useful things like Electricity, Thermodynamics, Climate Change, Power Generation, etc.

Click here to watch Jamiel discuss Physics with Ari Milke and Ruby Berlowitz.

What will I do in class?

In most classes a new physics concept will be introduced and you will have time to discuss this and work through examples with your teacher and class mates. You will have some time to work on practice problems in class. Experimental work is also a feature of lessons, which makes the theory "come alive".

How much homework will I have?

Class work not completed in class will need to be completed for homework. You would have at least 30 minutes of homework on each night you have physics class, with more leading up to assessments.

How do I satisfactorily complete the unit?

To gain an S for any VCE subject you need to demonstrate that you have met the Outcomes. In Physics, the Outcomes involve being able to apply the theory studied in the course.

You will meet the Outcomes through your results on topic tests for each topic and participation in class discussions as well as completion of the set coursework.

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher’s assessment of the student’s performance on attendance, and completing and submitting set work requirements designated for the unit.

Unit 1: What ideas explain the physical world?

- SAC 1 – Test on thermodynamics
- SAC 2 – Test on electricity and circuits
- SAC 3 – Test on matter and how it is formed
- Exam 1

Unit 2: What do experiments reveal about the physical world?

- SAC 1 – Test on motion, momentum and force
- SAC 2 – Test on an elective topic
- SAC 3 – Experimental practical investigation report
- Exam 2

Give me all the details I want to know more:

VCAA Physics

PHSC Physics 1&2 Wiki Page