

Senior Curriculum Engineering Technology OP Subject – 74

<u>Selection Advice</u>: Engineering Technology can be best described as an applied physics, involving theory and practicals that are directly related to the industrial world.

Students wishing to study Engineering Technology will require a sound understanding of the Year 10 Science and Mathematics.

Engineering Technology is a very good alternative to Physics for those students wishing to apply for an apprenticeship that requires Physics or an OP Technology subject as a prerequisite.

What is Studied:

- Forces and Moments in structures
- Properties of Metals, Composition and Testing
- Control Systems and Friction
- Metal alloys, Heat Treatment and Analysis of Metal Failure
- Tension and Compression in Building Structures
- Phase Diagrams, Casting, Forging and Welding
- Motor Efficiency, Mechanical Advantage and Power
- Pneumatics, Hydraulics and P.L.C. Control Systems





Why Study Engineering Technology:

Engineering Technology involves an exciting, dynamic and engaging study of the fundamentals of physics and its application to the mechanical and electrical world.

Engineering allows us to make sense of the physical world and harness its resources. The subject is directed towards producing individuals who are able to think critically and creatively in an engineering context, understand and act responsibly on commercial, ethical and environmental issues and communicate effectively in a variety of media and scientific genres

Assessment

A variety of assessment tasks are used in the course to assess Knowledge & Understanding, Reasoning and Communications. Assessments items include:

Extended Experimental Investigation or Project Non-experimental Investigation Written test.