

What will I study?

There are three topics covered in the course:

Circuit design

Students will develop a basic understanding of key electrical and electronic circuits and how they can be combined into simple electronic circuits. They will begin to develop the skills to analyse electronic problems and design solutions to these problems. They will also examine the impact of electronics on society and the wider environment.

Circuit simulation

Learners will develop skills in the use of simulation software in the context of practical electronics. They will, with guidance, use software to assist in the design, construction and testing of simple electronic circuits.

Circuit construction

The aim of this unit is to develop skills in assembling a range of simple electronic circuits using permanent and non-permanent methods. Students will also develop skills in testing and fault finding.

What skills will I develop?

Through theory and practical learning candidates will develop skills in:

- Designing analogue and digital circuits
- The use of software in the design of simple electronic systems
- The use of software in the construction and testing of simple electronic systems
- Planning the construction of simple electronic systems
- Constructing simple electronic systems
- Testing simple electronic systems
- Knowledge and understanding of safe and efficient working practices when working with electronics

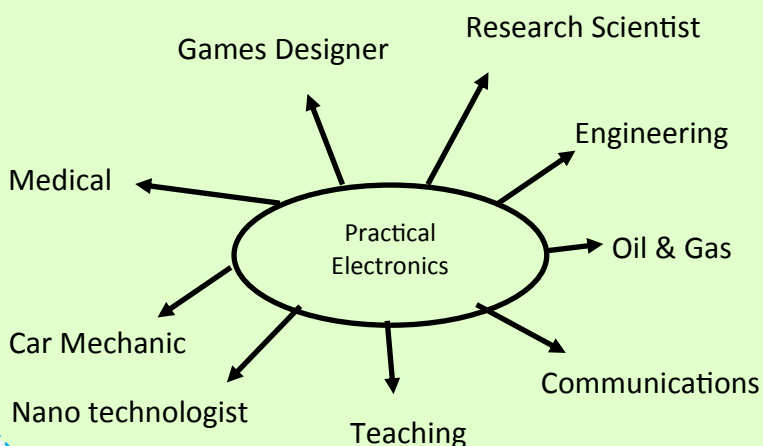
How will I be assessed?

Units are assessed in school by class teachers. National 4 candidates also complete an Added Value practical project. This is completed in school and marked by your teacher. All assessments are pass or fail based. To gain National 4 candidates must pass all units and the Added Value.

What can I go on and study in fifth and sixth year?

National 4 → National 5 Practical Electronics and National 4 Physics

Possible Careers



Need more info? -

[Nationals in a Nutshell](#)