



FACULTY OF ELECTRICAL ENGINEERING

NATIONAL CERTIFICATE (VOCATIONAL)

Electrical Infrastructure Construction LEVEL 2-4

ENTRY REQUIREMENTS

Grade 11 Certificate with Mathematics

DURATION

3 Years

WHAT IS THIS PROGRAMME ABOUT?

This programme covers heavy current, overhead power lines as well as domestic, civil and industrial industries. Furthermore, it also covers light current in the form of digital and electronics in the communications, industrial electronics and sound engineering fields, as well as instrumentation. This programme integrates academic knowledge and theory with practical skills and values.

WHAT VOCATIONAL ACTIVITIES WILL I BE ABLE TO PERFORM?

- > Work at a power station
- > Work as an electrician at an energy producing company or power plant
- > Be an electrical technician at a telecommunications company
- > Work at a recording studio as an electrical engineer
- > Work at a theatre as a technician

WHAT CAREER OPPORTUNITIES ARE OUT THERE?

- > Electrical Engineering
- > Construction Electrician
- > Industrial Engineering
- > Sound Technology
- > Theatre Technology
- > Process Level Control
- > Digital Electronics
- > Instrumentation

WHAT SUBJECTS WILL I BE TAKING?

FUNDAMENTAL SUBJECTS

- > Language (which must be a language of teaching at Boland College)
- > Mathematics/Mathematical Literacy
- > Life Orientation

VOCATIONAL SUBJECTS

Level 2

- > Electrical Principles and Practice
- > Workshop Practice
- > Electrical Control and Digital Electronics

- > Electrical Systems and Construction

Level 3

- > Electrical Principles and Practice
- > Electrical Workmanship
- > Electrical Control and Digital Electronics
- > Electrical Systems and Construction

Level 4

- > Electrical Principles and Practice
- > Electrical Workmanship
- > Electrical Control and Digital Electronics
- > Electrical Systems and Construction

WHAT DO THESE SUBJECTS ENTAIL?

ELECTRICAL PRINCIPLES AND PRACTICE

This subject covers the basics of electrical principles and practice and introduces the field of learning. At Level 2, it is assumed that students have no previous electrical background. Level 3 and 4 is a continuation of the learning material.

WORKSHOP PRACTICE

Workshop Practice introduces you to technical fields. You will be equipped with the necessary hand-skills for the construction industry. Workshop and fieldwork procedures that conform to safety regulations and safe working practices will also be learned.

ELECTRONIC CONTROL AND DIGITAL ELECTRONICS

Electronic Control and Digital Electronics Level 2 covers the basics of electronics and is designed to introduce the field of learning. As this subject becomes more and more embedded in electrical systems you will need to know what Electronic Control and Digital Electronics modules receive as inputs, do with the input to produce an output, what the output looks like and how it affects the operation of the electrical system.

In Levels 3 and 4, you'll continue with the theoretical and practical implementation of the learning material. Some of the Level 2 theoretical knowledge is repeated with greater detail to further embed knowledge.

ELECTRICAL SYSTEMS AND CONSTRUCTION

In Level 2, Electrical Systems and Construction covers the basics of electrical systems and introduces this particular field of learning. It teaches you the basic construction skills that are commonly found in the electrical field of practice while bringing you into contact with standard Electrical Systems and Construction procedures.

In Level 3, the subject covers the basics of electrical systems and construction procedures. In Level 4, it covers some of the daily tasks of an electrical tradesperson and introduces the practical side of this field of learning. In Levels 3 and 4, you'll continue with the theoretical and practical implementation of the learning material. This subject teaches the skills and principles necessary to be successful in this line of work.

ELECTRICAL WORKMANSHIP

Electrical Workmanship introduces this field of learning to students. You will have been introduced to the subject "Workshop Practice" in the previous NQF level and Electrical Workmanship continues to practically implement the learning material. This gives you a solid foundation of knowledge.

WORCESTER
t: 023 348 6920
e: wor@bolandcollege.com

STRAND
t: 021 853 7611
e: strand@bolandcollege.com

STELLENBOSCH
t: 021 887 3027
e: stel@bolandcollege.com

PAARL
t: 021 872 3323
e: paarl@bolandcollege.com

CALEDON
t: 028 212 3270
e: cal@bolandcollege.com

HEAD OFFICE
t: 021 886 7111
e: hq@bolandcollege.com
www.bolandcollege.com

