From the Principal’s desk

Take your next step now!
Follow through on your decision to enhance your life and your future prospects by enrolling in one of INTEC’s Electrical Engineering courses today!

Why study with us?
• Quality study material designed specifically for home-study.
• The freedom to study at YOUR pace, where and when it suits YOU.
• The widest range of courses for today’s world.
• Free consultations with INTEC’s career counselling and development specialists.
• Free study choice advice from INTEC’s Student Consultants.
• The convenience of online enrolment, contact and advice.
• Affordable, easy payment options.
• Ongoing study support and attention from qualified tutors.

Umalusi Accreditation
INTEC College (Pty) Ltd has been awarded provisional accreditation by Umalusi. Umalusi is the Council for Quality Assurance in General and Further Education and Training in South Africa - see www.umalusi.org.za
Umalusi Provisional Accreditation No.: FET 00037 PA.

DHET Registration
INTEC College (Pty) Ltd has been granted provisional registration by the Department of Higher Education and Training as a private FET College, until 31 December 2014.
Provisional registration No. 2008/FE07/025 - see www.dhet.gov.za. For further information please refer to our website: www.intec.edu.za
INTEC College (Pty) Ltd is committed to meeting legislative requirements regarding accreditation and registration of private education and training providers in South Africa.

Wishing you every success in your studies and your future!

Call a Student Consultant:

<table>
<thead>
<tr>
<th>HEAD OFFICE</th>
<th>Tel: (+27) 21 417 6700</th>
<th>Fax: (+27) 21 419 6721</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOHANNESBURG</td>
<td>Tel: (+27) 11 712 2555</td>
<td>Fax: (+27) 11 712 2521</td>
</tr>
<tr>
<td>PRETORIA</td>
<td>Tel: (+27) 12 352 9000</td>
<td>Fax: (+27) 12 322 6369</td>
</tr>
<tr>
<td>BENONI</td>
<td>Tel: (+27) 11 749 2001</td>
<td>Fax: (+27) 86 609 2284</td>
</tr>
<tr>
<td>WITBANK</td>
<td>Tel: (+27) 13 692 5400</td>
<td>Fax: (+27) 86 557 3505</td>
</tr>
<tr>
<td>NELSPRUIT</td>
<td>Tel: (+27) 13 752 2427</td>
<td>Fax: (+27) 13 752 6184</td>
</tr>
<tr>
<td>ERMELO</td>
<td>Tel: (+27) 17 811 2102</td>
<td>Fax: (+27) 17 811 2105</td>
</tr>
<tr>
<td>CAPE TOWN</td>
<td>Tel: (+27) 21 426 0626</td>
<td>Fax: (+27) 21 426 0771</td>
</tr>
<tr>
<td>PORT ELIZABETH</td>
<td>Tel: (+27) 41 585 0777</td>
<td>Fax: (+27) 86 262 1089</td>
</tr>
<tr>
<td>DURBAN</td>
<td>Tel: (+27) 31 374 9700</td>
<td>Fax: (+27) 31 301 8184</td>
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<tr>
<td>PHOENIX</td>
<td>OPENING SOON</td>
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<tr>
<td>PIETERMARITZBURG</td>
<td>Tel: (+27) 33 345 1665</td>
<td>Fax: (+27) 33 345 1055</td>
</tr>
<tr>
<td>VRYHEID</td>
<td>Tel: (+27) 34 980 9603</td>
<td>Fax: (+27) 34 980 8917</td>
</tr>
<tr>
<td>ESTCOURT</td>
<td>Tel: (+27) 36 352 5083</td>
<td>Fax: (+27) 36 352 5867</td>
</tr>
<tr>
<td>POLOKWANE</td>
<td>Tel: (+27) 15 291 4384</td>
<td>Fax: (+27) 15 291 1956</td>
</tr>
<tr>
<td>PHUTHADITJHABA</td>
<td>Tel: (+27) 58 713 1336</td>
<td>Fax: (+27) 58 713 1352</td>
</tr>
<tr>
<td>BLOEMFONTEIN</td>
<td>Tel: (+27) 51 430 8030</td>
<td>Fax: (+27) 86 541 4614</td>
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<tr>
<td>WELKOM</td>
<td>Tel: (+27) 57 352 8599</td>
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<tr>
<td>WINDHOEK</td>
<td>Tel: (+264) 61 308 834</td>
<td>Fax: (+264) 61 308 691</td>
</tr>
<tr>
<td>NATIONAL CALL CENTRE</td>
<td>Tel: 0800 012 311</td>
<td>Fax: 0860 103 242</td>
</tr>
</tbody>
</table>

INTEC College (PTY) LTD FET 00037 PA is a member of both the National Association of Distance Education Organisations in South Africa (NADEOSA) and the Association of Private Providers of Education, Training and Development (APPETD).
INTEC is a Registered Credit Provider: NCRCP 2325
15000A 12-13

(E & OE)
TECHNICAL SCHOOL

Electrical Engineering

INTEC COLLEGE
Leader in Distance Learning

Build your future the INTEC way
Programme Types offered at INTEC College

National Qualifications are credit-bearing qualifications registered on the NQF (National Qualifications Framework) and accredited by a Quality Assurance Body, such as a SETA (Sector Education and Training Authority). A skills programme is an accredited component of a national qualification.

Agent Programmes are programmes for which INTEC offers tuition, but where INTEC does not issue the final certificate. The Agent body issues the final certificate and manages the final examinations.

INTEC Programmes are INTEC’s own programmes that are not linked to the NQF and are not credit-bearing. However, they are in high demand and carry the approval of the INTEC Academic Board. INTEC Programmes fall into FIVE categories:

• INTEC Career Programmes are INTEC’s own programmes that are designed to teach you the skills and knowledge to succeed in a particular career.
• INTEC Career Booster courses are continuous professional development (CPD) short courses that help you add to your current professional knowledge in a particular field, and hence boost your abilities within your career.
• INTEC Career Starter courses are short courses that introduce you to a particular field or career, and that offer you the opportunity to explore an interest or a skills set without having to enrol on a full programme.
• INTEC Job Creator courses were designed to refine your skills in a particular field of interest, to teach you how to make a living from a particular skill, interest or hobby, and to help you start your own business.
• INTEC Self-Enrichment courses are offered for self-enrichment purposes. They will add value to your experience of life in a particular chosen field of interest.
Introduction

Your future in Electrical Studies

Every stage in the generation and distribution of electricity directly involves electronics specialists who are responsible for the design, operation and installation of all types of electrical operating equipment. They are also responsible for everything from the control of industrial processes to domestic installation practice. Now, you can prepare for this rewarding career in your own home, in your own time, at your own pace. Our easy-to-understand courses start with the basics, and then step by step teach you everything you need to get started.
Can you imagine a world without electricity? This controlled and flexible source of energy powers all of our technology. The demand for electricity is ever-increasing. However, new methods of generating electrical power are also constantly being introduced.

Our Introduction to Electrical Studies course will equip you with the theoretical skills that you need to begin an exciting career in this field.

Programme Type
The INTEC Introduction to Electrical Studies Certificate is part of the INTEC Career Starter series. The INTEC Introduction to Electrical Studies Certificate is an INTEC Certificate that has been approved by the INTEC College Academic Board.*

Entrance Requirements
Grade 10 (Std. 8) or equivalent, or relevant work experience (2 years).

Course Duration
You should be able to complete this course within 12 months.

* This programme does not lead to a qualification on the NQF.
Course Content

- Engineering Drawing
- Basic Electronics
- Mathematics
- Electronics
- Engineering Studies I
- Engineering Studies
- Basic Electrotechnics I
- Basic Electrotechnics II

Assessment

All the required assignments must be completed and sent to the College for marking. All assignments must be successfully passed in order to obtain the award.

Award

On successful completion of this course, you will receive your INTEC Introduction to Electrical Studies Certificate.
The Certificate: Electrical Engineering provides a student with the basic skills necessary for a career as an engineering technician in the fields of Electronics, Computers, Electrical, Testing and Control and Telecommunications. On successful completion of the Certificate: Electrical Engineering, you will be able to calculate the stresses in components under simple loading conditions, solve electrical engineering problems, work safely with electricity and determine voltage, current and resistance of series and parallel circuits. The qualification supports access into other qualifications in this field – allowing you to further expand and develop your skills and knowledge.

Admission Requirements
Grade 10 (Standard 8) or equivalent, or verifiable and relevant working experience (2 years) preferably in a technical environment.

Duration
You should be able to complete this course within 18 months.

Certification
On successful completion of this course, you will receive a Certificate: Electrical Engineering.

Career Opportunities
This qualification will enable you to pursue a career in:

- Electrical Engineering
- Electronic Engineering
Diploma: Electrical Engineering

Qualification: DipEleEng (INTEC) NQF 6
SAQA ID: 21117
NQF Level 6
Credits: 240

The Diploma: Electrical Engineering enables the identification and understanding of the skills and competencies relevant to Electrical Installation. This includes different motors, DC Machinery and the application of the SABS Code of Practice for electrical installations within, for example, the domestic market. Skills and competencies are underpinned by a solid foundation in physical science and electrical calculations to ensure effective operations within the field.

Admission Requirements
Grade 12 (Standard 10) or equivalent, or the Certificate: Electrical Engineering with INTEC, or relevant working experience (3 years) preferably in a technical environment.

Duration
You should be able to complete this course within 24 months.

Certification
On successful completion of this course, you will receive a Diploma: Electrical Engineering.

Career Opportunities
This qualification will enable you to pursue a career in:

- Electrical Engineering
- Electronic Engineering
This qualification could assist with the achievement of national government and industrial development policies and strategies to grow a pool of scarce and other related skills in support of sustainable economic growth. People working in the electrical engineering field require specialised technical skills and knowledge in order to meet the requirements of a continually changing environment of the various industries. Through its design, this qualification will meet the needs of learners within the electrical engineering sectors who require technical expertise and essential knowledge needed to earn formal qualifications.

This electrical engineering qualification provides the foundational competencies required to work on designated electrical circuits and installations. Achieving the full qualification will provide the learner with accessibility to be employed within the electrical engineering field and provides the flexibility to pursue different careers across various industry sectors.
Programme Type
INTEC is acting as an agent for the Industries Education and Training Institute (IETI) by providing the theory component of this qualification. It is therefore classified as an agent programme. However, if you pass the exams and practical sessions set by the IETI, you can achieve a national qualification.

Admission Requirements
* Grade 9 (Std 7) with Communication and Mathematical Literacy, or N1 with Engineering Science and Technology, or relevant work experience (2 years)

Course Duration
You should be able to complete this course within 24 months.

Accreditation with CETA
INTEC College offers this qualification in collaboration with Industries Education and Training Institute (IETI). INTEC College will provide the theoretical tuition while IETI conducts the assessment, moderation and practical/s. IETI is accredited by the Construction Education and Training Authority (CETA) (Accreditation number: 5830005 ) to offer the National Certificate: Electrical Engineering NQF 2: Electrical Construction (LP ID 67430). IETI is the Lead Training Provider and will be responsible for ensuring that the uploading of the Learner competencies on the National Learner Record Database (NLRD) with CETA and SAQA is executed.
Course content

Fundamental Unit Standards (36 credits)

• 119463 Access and use information from texts
• 119454 Maintain and adapt oral/signed communication
• 119460 Use language and communication in occupational learning programmes
• 119456 Write/present for a defined context
• 9009 Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life-related problems
• 7480 Demonstrate understanding of rational and irrational numbers and number systems
• 9008 Identify, describe, compare, classify, explore shape and motion in 2- and 3-dimensional shapes in different contexts
• 7469 Use mathematics to investigate and monitor the financial aspects of personal and community life
• 9007 Work with a range of patterns and functions and solve problems

Core Unit Standards (84 credits)

• 258925 Apply and maintain safety in a working environment
• 258932 Apply soldering techniques
• 258935 Design and construct a single phase circuit
• 12466 Explain the individual’s role within business
• 259017 Identify, inspect, clean and maintain electrical rotating machines
• 258957 Identify, inspect, use, maintain and care for engineering hand tools
• 258960 Install electric wire ways
• 258942 Install luminaires
• 258919 Install or replace electrical metering units or measuring instruments
• 258921 Install, join and terminate low voltage cables and conductors

National Certificate: Electrical Engineering NQF 2 Electrical Construction (LP ID 67430)
• 258937 Install, maintain or replace low voltage distribution boards, protection devices and components
• 258962 Maintain transformers
• 9881 Mark off basic regular engineering shapes
• 258918 Select, use and care for electrical measuring and testing instruments
• 10255 Select, use and care for power tools
• 258967 Understand fundamentals of electricity

Elective Unit Standards (21 credits)
• 258939 Carry out basic electric arc welding in an electrical environment
• 12465 Develop a learning plan and a portfolio for assessment
• 116932 Operate a personal computer system
• 116938 Use a Graphical User Interface (GUI)-based word processor to create and edit documents

Assessment and fees
All the required formative assessments must be completed and sent to INTEC College for marking. Assessments of your competency are based on the evidence you will submit in your formative assessments. The practical component will be conducted by IETI, our Practical Partner for the programme. The practical and final examinations will be conducted nationally at IETI training facilities via contact sessions. For further information about the practical sessions, contact IETI Head Office on 021 5118048 or via e-mail at ietict@ietisa.co.za.
All learners must arrange to be available for the practical assessments on the predetermined dates and times, and at the venues prescribed by IETI.
Please note: Fees for final exams and practical assessments are not included in your INTEC tuition fee; this should be paid directly to IETI.

Award
Industries Education and Training Institute (IETI) will upload your details and results onto the National Learner Record Database (NLRD) when you have been declared competent and will also provide you with a Certificate on completion of the practicals and final assessments. CETA will award you with your final results. You will also receive a statement of results from INTEC College.
The following Skills Programmes are also offered:
Skills Programme 1: Basic Electrical Safety
(This Skills Programme is compulsory for entrance into SP2 and SP3)

<table>
<thead>
<tr>
<th>TITLE</th>
<th>TYPE</th>
<th>US ID</th>
<th>CREDITS</th>
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</thead>
<tbody>
<tr>
<td>Apply &amp; Maintain Safety in a working Environment</td>
<td>C</td>
<td>258925</td>
<td>5</td>
</tr>
<tr>
<td>Understand Fundamentals of Electricity</td>
<td>C</td>
<td>258967</td>
<td>8</td>
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</table>

Skills Programme 2: Electrical Maintenance

<table>
<thead>
<tr>
<th>TITLE</th>
<th>TYPE</th>
<th>US ID</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain Transformers</td>
<td>C</td>
<td>258962</td>
<td>5</td>
</tr>
<tr>
<td>Install, maintain or replace Low Voltage distribution boards, protection devices and components.</td>
<td>C</td>
<td>258937</td>
<td>6</td>
</tr>
<tr>
<td>Identify, inspect, maintain, use and care of engineering hand tools</td>
<td>C</td>
<td>258957</td>
<td>6</td>
</tr>
<tr>
<td>Apply soldering techniques</td>
<td>C</td>
<td>258932</td>
<td>2</td>
</tr>
<tr>
<td>Identify, Inspect, clean and maintain electrical rotating machines</td>
<td>C</td>
<td>259017</td>
<td>6</td>
</tr>
<tr>
<td>Carry out basic electric arc welding in an electrical environment</td>
<td>E</td>
<td>258939</td>
<td>8</td>
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</table>
### Skills Programme 3: Electrical Design and Installation

<table>
<thead>
<tr>
<th>TITLE</th>
<th>TYPE</th>
<th>US ID</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design &amp; construct a single-phase circuit</td>
<td>C</td>
<td>258935</td>
<td>5</td>
</tr>
<tr>
<td>Install electric wire ways</td>
<td>C</td>
<td>258960</td>
<td>6</td>
</tr>
<tr>
<td>Install luminaires</td>
<td>C</td>
<td>258942</td>
<td>4</td>
</tr>
<tr>
<td>Install or replace electrical metering units or measuring instruments</td>
<td>C</td>
<td>258919</td>
<td>4</td>
</tr>
<tr>
<td>Select, use and care for electrical measuring and testing instruments</td>
<td>C</td>
<td>258918</td>
<td>4</td>
</tr>
<tr>
<td>Mark off basic regular engineering shapes</td>
<td>C</td>
<td>9881</td>
<td>6</td>
</tr>
<tr>
<td>Select, use and care for power tools</td>
<td>C</td>
<td>10255</td>
<td>5</td>
</tr>
<tr>
<td>Explain the individual’s role within business</td>
<td>C</td>
<td>12466</td>
<td>4</td>
</tr>
<tr>
<td>Install, join and terminate low voltage cables and conductors</td>
<td>C</td>
<td>258921</td>
<td>8</td>
</tr>
<tr>
<td>Develop a learning plan and a portfolio for assessment</td>
<td>E</td>
<td>12465</td>
<td>6</td>
</tr>
<tr>
<td>Operate a personal computer</td>
<td>E</td>
<td>116932</td>
<td>3</td>
</tr>
<tr>
<td>Use a graphical user-interface-based word processor to create and edit documents</td>
<td>E</td>
<td>116938</td>
<td>4</td>
</tr>
</tbody>
</table>
Programme Type

These Skills Programmes are Agent Programmes. INTEC offers the theory component of these Skills programmes on behalf of our partner, IETI (Industries Education and Training Institute).

Admission Requirements

*Grade 9 (Std 7) with Communication and Mathematical Literacy, or N1 with Engineering Science and Technology, or relevant work experience (2 years)

Course Duration

You should be able to complete each Skills Programme within 12 months.

Assessment and fees

All the required formative assessments must be completed and sent to INTEC College for marking. Assessments of your competency are based on the evidence you will submit in your formative assessments. The practical component will be conducted by IETI, our Practical Partner for the programme. The practical and final examinations will be conducted nationally at IETI training facilities via contact sessions. For further information about the practical sessions, contact IETI Head Office on 021 5118048 or via e-mail at ietict@ietisa.co.za.

All learners must arrange to be available for the practical assessments on the predetermined dates and times, and at the venues prescribed by IETI.

Please note: Fees for final exams and practical assessments are not included in your INTEC tuition fee; this should be paid directly to IETI.
Award

Industries Education and Training Institute (IETI) will upload your details and results onto the National Learner Record Database (NLRD) when you have been declared competent, and will also provide you with a Certificate on completion of the practicals and final assessments. CETA will award you with your final results. You will also receive a statement of results from INTEC College.
The FETC Electrical Engineering (NQF Level 4) is intended to produce a highly competent person who will be able to meet the challenges of a competitive and demanding environment. This electrical engineering qualification provides the advanced competencies required to work on integrated electrical systems and installations. This qualification provides the learner with accessibility to be employed within the electrical engineering field and provides the flexibility to pursue different careers across various industry sectors.

Qualifying learners at NQF Level 4 will be able to:

- Understand electrical equipment and protection technology and interpret integrated system schematics.
- Install and commission electrical equipment on integrated electrical systems.
- Maintain and repair electrical equipment on integrated electrical systems.
- Evaluate and solve familiar problems pertaining to electrical equipment, integrated electrical systems and related processes.
- Accept responsibility for utilising and maintaining equipment without working under direct supervision.
Programme Type
INTEC is acting as an agent for the Industries Education and Training Institute (IETI) by providing the theory component of this qualification. It is therefore classified as an agent programme. However, if you pass the exams and practical sessions set by the IETI, you can achieve a national qualification.

Admission Requirements
• Electrical Engineering NQF Level 3 or an equivalent
• Language and Maths at NQF Level 3

Course duration
You should be able to complete this course within 24 months.
Accreditation with CETA

INTEC College offers this qualification in collaboration with Industries Education and Training Institute (IETI). INTEC College will provide the theoretical tuition while IETI conducts the assessment, moderation and practical/s. IETI is accredited by the CETA (Accreditation number 5830005) to offer the Further Education and Training Certificate: Electrical Engineering NQF 4 Electrical Construction (LP ID 72070). IETI is the Lead Training Provider and will be responsible for ensuring that the uploading of the Learner competencies on the National Learner Record Database (NLRD) with CETA and SAQA is executed.

Course Content
Fundamental Unit Standards (56 credits)

119472 Accommodate audience and context needs in oral/sign communication
119457 Interpret and use information from text
119467 Use language and Communication in Occupational learning programmes
119465 Write/present/sign texts for a range of communicative contexts
119471 Use language and communication in occupational learning programmes
119462 Engage in sustained oral/sign communication and evaluate spoken/signed texts
119469 Read/view, analyse and respond to a variety of text
119459 Write/present/sign for a wide range of contexts
9015 Statistics and probability
9016 Analyse/calculate shape and motion 2/3 dimensional space
7468 Maths in financial aspects
Core Unit Standards (54 credits)

113899 Demonstrate an understanding of basic programmable logic controllers
259200 Design, construct and commission three-phase electrical circuits
259217 Install and commission AC machines and control gear
259177 Maintain, test and repair AC machines and control gear
259197 Test and inspect a three-phase industrial/commercial installation
113873 Understand basic electrical and mechanical engineering principles

Elective Unit Standards (22 credits)

113898 Complete certificate of compliance for a single phase domestic installation
13818 Maintain low voltage switchgear
113897 Troubleshoot on programmable logic controllers
259182 Select a back-up generator for a standalone renewable energy system
259218 Apply the principles of energy efficiency

Assessment and fees

All the required formative assessments must be completed and sent to INTEC College for marking. Assessments of your competency are based on the evidence you will submit in your formative assessments. The practical component will be conducted by IETI, our Practical Partner for the programme. The practical and final examinations will be conducted nationally at IETI training facilities via contact sessions. For further information about the practical sessions, contact IETI Head Office on 021 5118048 or via e-mail at ietict@ietisa.co.za.

All learners must arrange to be available for the practical assessments on the predetermined dates and times, and at the venues prescribed by IETI.

Please note: Fees for final exams and practical assessments are not included in your INTEC tuition fee; this should be paid directly to IETI.
Further Education and Training Certificate: NQF 4 Electrical Construction (LP ID 72070) Skills Programmes

Award
Industries Education and Training Institute (IETI) will upload your details and results onto the National Learner Record Database (NLRD) when you have been declared competent, and will also provide you with a Certificate on completion of the practicals and final assessments. CETA will award you with your final results. You will also receive a statement of results from INTEC College.

The following Skills Programmes are also offered:

<table>
<thead>
<tr>
<th>Skills Programme 1: Electrical Installation</th>
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<tbody>
<tr>
<td>TITLE</td>
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</tr>
<tr>
<td>Understand basic electrical and mechanical engineering principles</td>
</tr>
<tr>
<td>Install and commission AC machines and control gear</td>
</tr>
<tr>
<td>Design, construct and commission three-phase electrical circuits</td>
</tr>
<tr>
<td>Demonstrate an understanding of basic programmable logic controllers (PLCs)</td>
</tr>
<tr>
<td>Apply the principles of energy efficiency</td>
</tr>
<tr>
<td>Select a back-up generator for a standalone renewable energy system</td>
</tr>
<tr>
<td>TITLE</td>
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<tr>
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</tr>
<tr>
<td>Test &amp; inspect a three-phase industrial or commercial installation</td>
</tr>
<tr>
<td>Maintain, test and repair AC machines and control gear</td>
</tr>
<tr>
<td>Troubleshoot on programmable logic controllers</td>
</tr>
<tr>
<td>Complete certificate of compliance for a single-phase domestic installation</td>
</tr>
<tr>
<td>Maintain low voltage switch gear-Proposed</td>
</tr>
</tbody>
</table>

**Programme Type**

These Skills Programmes are Agent Programmes. INTEC offers the theory component of these Skills programmes on behalf of our partner, Industries Education and Training Institute (IETI).

**Admission Requirements**

- Electrical Engineering NQF Level 3 or an equivalent
- Language and Maths at NQF Level 3

**Course Duration**

You should be able to complete each Skills Programme within 12 months.
Further Education and Training Certificate: NQF 4 Electrical Construction (LP ID 72070) Skills Programmes

Assessment and fees
All the required formative assessments must be completed and sent to INTEC College for marking. Assessments of your competency are based on the evidence you will submit in your formative assessments. The practical component will be conducted by IETI, our Practical Partner for the programme. The practical and final examinations will be conducted nationally at IETI training facilities via contact sessions. For further information about the practical sessions, contact IETI Head Office on 021 5118048 or via e-mail at ietict@ietisa.co.za. All learners must arrange to be available for the practical assessments on the predetermined dates and times, and at the venues prescribed by IETI. Please note: Fees for final exams and practical assessments are not included in your INTEC tuition fee; this should be paid directly to IETI.

Award
Industries Education and Training Institute (IETI) will upload your details and results onto the National Learner Record Database (NLRD) when you have been declared competent, and will also provide you with a Certificate on completion of the practicals and final assessments. CETA will award you with your final results. You will also receive a statement of results from INTEC College.
This Skills Programme consists of the following unit standards:

- 262784- Mount solar water heating system
- 244499- Install and maintain solar water heating systems

Programme Type

The Skills Programme in Solar Heating Installation is an Agent Programme.

262784- Mount solar water heating system

Learners who achieve this Unit Standard will understand the relevant theory regarding solar water heating systems and be able to install the system taking due cognisance of roof types and other related matters. Importantly, the installer will work under the supervision of a qualified plumber at all times.

Learners credited with this standard will be able to:

- Explain the theory regarding solar water heating systems.
- Demonstrate and apply knowledge of roof trusses in order to complete installation of solar water heating systems.
- Plan and prepare for installation of solar water heating systems.
- Install solar water heating systems.

Learning assumed to be in place

- Communication at NQF Level 1.
- Mathematical Literacy at NQF Level 1.
- Unit Standard: Apply plumbing principles as they pertain to the installation of a hot water system.

244499- Install and maintain solar water heating systems

This unit standard will enable plumbers and related role-players to improve professionalism and enhance the quality and effectiveness of services by being able to install and maintain solar water heating systems.
A person credited with this unit standard is able to:

- Understand solar energy as a source of heat.
- Prepare and plan for the installation of solar water heating systems.
- Install solar water heating components, pipes and fittings.
- Maintain solar water heating components, pipes and fittings.

This unit standard will contribute to the development of the learner within the context of the plumbing discipline. Learners who have achieved this unit standard will increase their opportunities for further development and employability within the plumbing environment.

Learning assumed to be in place

- Communication at NQF Level 3.
- Mathematical literacy at NQF Level 3.

Accreditation with CETA

INTEC College offers this qualification in collaboration with Industries Education and Training Institute (IETI). INTEC College will provide the theoretical tuition while IETI conducts the assessment, moderation and practicals. IETI is accredited by CETA (Accreditation number: 5830005) to offer 262784- Mount solar water heating system and 244499- Install and maintain solar water heating systems. IETI is the Lead Training Provider and will be responsible to ensure that the uploading of the Learner competencies on the National Learner Record Database (NLRD) with the SETA and SAQA is executed.
Assessment and fees
All the required formative assessments must be completed and sent to INTEC College for marking. Assessments of your competency are based on the evidence you will submit in your formative assessments. The practical component will be conducted by IETI, our Practical Partner for the programme. The practical and final examinations will be conducted nationally at IETI training facilities via contact sessions. For further information about the practical sessions, contact IETI Head Office on 021 5118048 or via e-mail at ietict@ietisa.co.za. All learners must arrange to be available for the practical assessments on the predetermined dates and times, and at the venues prescribed by IETI.

Please note: Fees for final exams and practical assessments are not included in your INTEC tuition fee; this should be paid directly to IETI.

Award
Industries Education and Training Institute (IETI) will upload your details and results onto the National Learner Record Database (NLRD) when you have been declared competent, and will also provide you with a Certificate on completion of the practicals and final assessments. CETA will award you with your final results. You will also receive a statement of results from INTEC College.