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Dear Students

Vocational training centres can equip you with the tools you need, to go after a job that allow you use your hands to make a noticeable impact in the world. In fact, the skilled trades represent some of the smartest and most fulfilling job choices available today.

If you enjoy building stuff, fixing problems, and doing work that is truly useful, then learning a trade is one of the best ways to get closer to a life you can really be proud of. Whether you are looking to pursue your career interest at an electrician vocational centre —or training in one of many other trades—there are plenty of opportunities if you want an essential, hands-on career. Genuine satisfaction in the work you do could soon be yours. Learn more about how you can get started and follow up on the vocational centres in Namibia on page 6 of this edition.

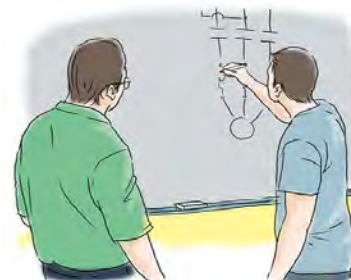
- Martina

The Windhoek and Regional Vocational Training Centres are responsible for providing Namibia's labour force with various artisan skills. These technical colleges prepare skilled artisans through a programme that provides a sound foundation in theory combined with experience in the working environment . Persons, who wish to improve their knowledge and technical skills, can enroll for skills training and upgrading courses at these institutions. Training programmes consists of apprenticeships, basic and advanced skills upgrading and bridging courses.

The following trades, which are divided into four categories, are offered by Vocational Training Centres throughout the country:

ELECTRICAL ENGINEERING TRADES

- ◇ Air Conditioning and Refrigeration Mechanic
- ◇ Electrician
- ◇ Power—Plant Operator
- ◇ Radio and Television Mechanic



AIR CONDITIONING AND REFRIGERATION MECHANIC

An Air Conditioning and Refrigeration Mechanic installs and repairs domestic and commercial/industrial air conditioning and refrigeration systems. He/she reads manuals and circuit diagrams by using his/her knowledge on structural layout, function and design of air conditioning/refrigeration systems and components, carry out installation and repair works, adjust the system with its components to operate satisfactory.

JOB CHARACTERISTICS

Studying building drawings, piping charts and electrical diagrams, laying out reference points for installation of structural and functional components.

Drilling holes and installing mounting brackets and hangers on walls and ceilings of buildings and vessels.
Lifting and aligning components into fixed positions using hoists, blocks and tackles.

Assembling components such as motors, compressors, condensers, evaporators, pumps, valves, gauge manifolds and connecting pipes, etc. by screwing, bolting, riveting, welding and brazing methods.

Pumping the air conditioning/refrigeration system to specified vacuum and charging correct type and amount of refrigerant gas into the system, starting the operation of the system or plant, observing its function closely.

Reading gauges and instruments, adjusting the control mechanism of the system, making it fully operational up to the maximum standard of safe operation and efficiency as stated by the manufacturer of the plant and components.

Dismantling malfunctioning systems, testing components by using gauges and instruments to find causes of trouble, replacing or repairing defective parts, rebuilding and adjusting the system to full operation again.

Installing insulation shells, pre-fabricated cooling compartments, and cabinets, and also performing wiring in-between and to the components from the electric power supply.

Specializing in installing and service of central air conditioning systems, or operating and working on large size industrial refrigeration plants in the food and beverage industry.

REQUIREMENTS & TRAINING

Secondary Education

To become an air conditioning and refrigeration mechanic, one must be in possession of at least a Grade 10 or equivalent qualification. A higher qualification is, however, recommended. The candidate must be at least 16 years old.

Compulsory Subjects

Mathematics, Physical Science and English

Tertiary Education

Training is provided via any of the three described routes at a Vocational Training Centre, namely: the apprenticeship opportunity, the co-operative opportunity or the vocational trainee opportunity.

Personality

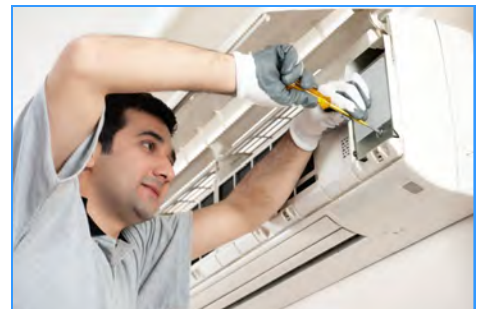
Air conditioning and refrigeration mechanics must have good manual skills and technical aptitude. They should have a good working knowledge of drawings and be able to interpret diagrams. They must be able to work quickly and accurately as refrigeration apparatus may contain perishable goods.

WORK OPPORTUNITIES

Air conditioning and refrigeration mechanics are employed in industrial refrigeration and air conditioning plants, e.g. fisheries, hospitals, theatre and rail as well as for domestic air conditioning and refrigeration.

Self-employment is a viable option if sufficient experience has been gained.

Work prospects are good.



ELECTRICIAN

An Electrician installs repairs and maintains wiring and electrical equipment in buildings of institutions and commercial establishments, as well as in residential houses, schools, hospitals and other constructions.

JOB CHARACTERISTICS

Examining installations-drawings and connections-charts for distribution boards, junctions, sockets, and lighting arrangements for Electricity supply into the building.

Undertaking the necessary wiring for lighting, heating and other purposes in the house and at the industrial premises according to specifications.

Paying attention to codes of cables and other installation materials.

Installing and replacing fuses, circuit breakers and other safety arrangements in the building and on premises.

Installing and repairing household appliances, such as heaters, stoves, washing machines, dryers, refrigerators, fans, geysers, lawnmowers, etc.

Undertaking rewiring and changes for electronic motors and equipment in machine halls, production repair workshops.

Specializing himself/herself for work on high-tension power lines at the power plants, in the electrical sub-stations and on the distribution net for towns and industries.

REQUIREMENTS & TRAINING

Secondary Education

Possession of at least a Grade 10 or equivalent qualification is required. A higher qualification is, however, recommended. The candidate must be at least 16 years of age.

For NamPower Training Centre and **HIGCSE/IGCSE** Grade 12 or equivalent qualification, with Mathematics and Physical Science or Grade 12 or a Technical N3 Certificate is required. To be accepted at NamWater, the candidate must have obtained very good marks in Mathematics and Physical Science.

Compulsory Subjects

Mathematics, Physical Science and English (Vocational Training Centres). Mathematics and Physical Science, preferably a B-symbol (NamWater). Mathematics and Physical Science (NamPower).

Tertiary Education

Training is provided via any three described routes at a Vocational Training Centre, namely: the apprenticeship opportunity, the co-operative opportunity or the vocational trainee opportunity

Personality

A prospective candidate must be alert, accurate and cautious as his work can be dangerous. He/she must be able to function under pressure and still be able to make responsible decisions. The candidate should also be physically fit, have good eyesight and not be colour blind. If working in a supervisory capacity he/she should also be able to maintain good interpersonal relationships.

WORK OPPORTUNITIES

Electricians are employed by the public sector, parastatals, mining companies and the private sector alike. Self-employment is a viable option if sufficient experience has been gained. Work prospects for electricians seem to be very good.



POWER PLANT OPERATOR

A Power Plant Operator and monitors machinery and equipment which generate electricity and controls the distribution thereof.

JOB CHARACTERISTICS

Bringing a turbine to the "ready-to-start condition" and engaging it by, for example, controlling water influx. Starting and stopping the turbine.

Controlling the amount of electricity generated by the power station.

Carrying out regular inspections on the turbine and all other plant auxiliaries.

Operating and monitoring coal fired steam-power generating plants.

Recording hourly and routine meter readings.

Reporting any factors that may affect the safety of the plant or the continuity of power supply.

Keeping a Chronological log of all important operations and occurrences.

REQUIREMENTS & TRAINING

Secondary Education

To be accepted by South African companies for in-service training, the minimum requirement is a **HIGCSE/IGCSE** Grade 12 or equivalent qualification. N3 certificate is recommendable.

Compulsory Subjects

Mathematics and Physical Science.

Tertiary Education

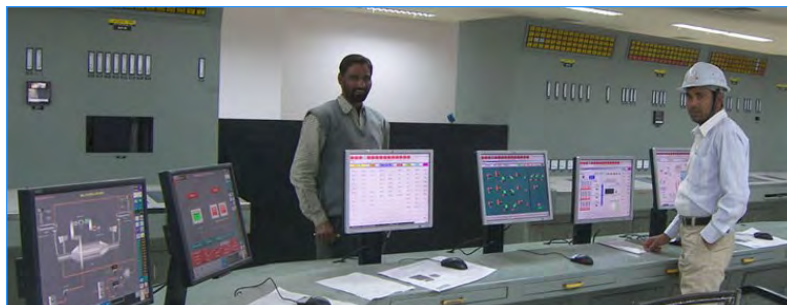
No formal guidelines exist, as this is currently not a designated trade in Namibia. Relevant experience and English literacy are advantageous to receive in-service training with a suitable employer. Most employers will, however, require higher qualifications (i.e. NamPower requires at least a Grade 10 certificate or equivalent qualification). Candidates with relevant qualifications or experience in electricity-related fields will also have distinct advantages.

Personality

A prospective power plant operator must be of an accurate, observant nature with a technical aptitude. Ability to concentrate is important, even when the work is of a repetitive nature.

WORK OPPORTUNITIES

A limited number of candidates can be employed by NamPower and NamWater.



RADIO AND TELEVISION MECHANIC

A Radio and Television Mechanic services and repairs radio and television equipment, tape recorders, video-cassette recorders and other audio-visual equipment.

JOB CHARACTERISTICS

Examining drawings and writing schemes of the equipment to be serviced or repaired.
Diagnosing faults by using testing equipment, e.g. resistance meters, oscilloscopes, diodes and transistor testers.
Checking, repairing and replacing defective parts (e.g. contacts, resistors) of electronic home equipment.
Renewing/reconnecting faulty wiring and replacing/repairing integrated circuit boards as appropriate.
Testing and adjusting the equipment for proper functioning, e.g. receipt of signals.
Commissioning and repairing loudspeakers and entertainment equipment for stages, schools, restaurants, etc.
Instructing customers on the safe and proper use of equipment

REQUIREMENTS & TRAINING

Secondary Education

Possession of at least a Grade 10 or equivalent qualification is required. A higher qualification, is however, recommended. The candidate must be at least 16 years of age.

Compulsory Subjects

Mathematics, Physical Science and English (some Vocational Training Centres)

Tertiary Education

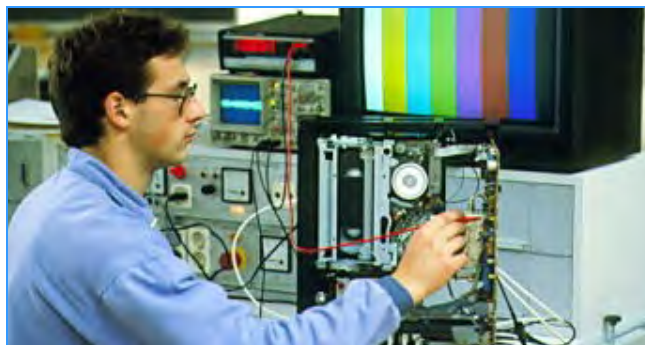
Training is provided via any of the three described routes at a Vocational Training Centre, namely: the apprenticeship opportunity, the co-operative opportunity or the vocational trainee opportunity.

Personality

A radio and television mechanic should enjoy working with his/her hands, have a mechanical aptitude and a high level of eye-hand coordination.

WORK OPPORTUNITIES

Radio and television mechanics can be employed at radio/TV retailers and repair stores. Self-employment is also a very viable option with this occupation. Job prospects are good.



INSTITUTIONS THAT PROVIDE ELECTRICAL ENGINEERING TRADE TRAINING

It is expected of the **Namibia Training Authority** as the official regulating body in the Vocational Education and Training sector, to ensure that all training providers operating within the borders of our country, indeed meet quality training standards. The following institutions are now registered with the NTA and have been issued with registration certificates :

Windhoek Vocational Training Centre

Tel#: (061) 211 742

Okakarara Vocational Training Centre

Tel#: (067) 317 069 Fax: (067) 317 469

NamPower

Tel#: (061) 2054111

Rundu Vocational Training Centre

Tel#: (066) 255 211

Valombola Vocational Training Centre

Tel#: (065) 230 033

Triumphant College

Tel#: (061) 234903

NIMT (THE NAMIBIAN INSTITUTE OF MINING AND TECHNOLOGY) offers a four-year training opportunity in the Millwright (Electrical) trade. Training is based on the Apprenticeship modular training approach in accordance with the requirements and recommendations of the industry.

NIMT ENGINEERING & BUILDING CIVIL TRADES MAIN CAMPUS ARANDIS:

Tel: 064-511800 Fax: 064-510369 E-mail: nimtho@iafrica.com.na



Always do your best and try to improve. Whether you are studying in high school or on a full time electrical engineering trade job, **never** give up without a good reason. A wise person once said, "Every cloud has a silver lining." It's the engineers' job to find that lining and make the most out of it. -wikiHow

FOOD FOR THOUGHT



Meet Ignatius Shifa, the 30-year-old self-employed who hails from the village called Okalongo in the Northern part of Namibia.

He started his schooling at Oshatotuu Combined School and then went on to Okalongo High School where he matriculated. Shifa comes from a big family. He was raised by his grandmother, who only depended on her pension to sustain the family. "Life was tough. I can remember in Grade 10, the school fee and examination fee was the same amount as my grandmother's pension and that was not enough for all of us, so I would often go with a bottle of coke to give to my teacher, so I can write exams," says Shifa. Growing up in a village without electricity, Shifa developed an interest in power as he was eager to know how electricity works and where one can get it. He wanted power in his village. "As a child I use to play around with tools and things just to see what I can come up with. I use to love power but we didn't have any where I came from and that made me want to know where it derived and now I do, I'm living my life as an electrician," he says.

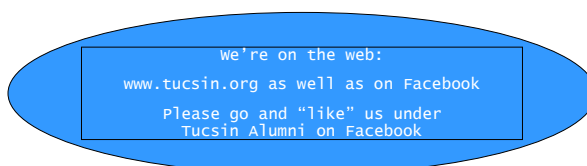
When Shifa completed high school all he wanted to do was specialize in electricity and with the help of his grandmother and a government grant, he registered himself in the Department of *Electrical Trade* at the Windhoek Vocational Training Centre (WVTC). "Getting into VTC was not easy because at the time I still did not have money but my grandmother went out of her way again to make sure we get the best education. She sold some of her goats to pay for my registration of N\$1000, while I was still waiting on the GRN grant and when it was approved everything was covered and I was at ease," says Shifa. Coming from the village to the city was something new to Shifa, and adapting to the environment was not as easy as he thought it would be. "My first year was tough, I didn't know the capital. With no money for transport, I had to walk from Katutura to Khomasdal. The whole year I was just walking. Cloth wise, we got uniforms, so I didn't have to worry about what to wear. I didn't really care about materialistic things. My concentration was with my studies, I only wanted to master electricity and that's probably what made me one of the best students in class," he reflects.

After years of training Shifa eventually obtained his certificate and got a job at *ABB Contracting*, a company that deals with electrical work. After working at ABB, Shifa decided to resign and start up his own business called, Shifa Electrical and Construction cc, which does building construction, tiling, electrical installations, plumbing, renovations and draws building plans. When Shifa opened his company he started with four employees but now has 35 employees. "I'm happy with where I am today. I came from a poor family and I've achieved something to sustain my family now," he says. He adds that even if sometimes getting customers is a struggle, he is coping and hopes to expand his business countrywide. "I want to be able to employ more people as my company grows bigger. I want it respected and recommended by the customers," Shifa dreams. He encourages the young out there to follow their dreams. "Whatever you dream of go for it, it's possible. If I can do it then you can too. I didn't own a wheelbarrow when I started but now I own a lot of them. Never forget where you come from and always think of that when you need motivation."

Article from New Era - December 9th, 2014 | by Mathias Haufiku

Reference: Min of Labour & Social Welfare - Careers in Namibia 2005/2006

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