

CAMPUS

DURBANVILLE
(CAPE TOWN)

DESCRIPTION

Renewable energy comes from natural sources that are replenished naturally over time – like sunlight, wind, tides and geothermal heat. It is clean, sustainable and helps fight climate change. Are you interested to learn more about the various renewable energy fields such as solar, wind, and hydrokinetic power? Are you passionate about solving problems creatively, protecting the environment and eager to make a positive difference? If so, the Higher Certificate in Renewable Energy Engineering may be for you.

The Higher Certificate Programme in Renewable Energy Engineering focuses on providing students with foundational knowledge and practical skills in the renewable energy field. This programme is designed to equip students with the required technical competencies and provide a foundation for Electrical Engineering.

The modules covered in this qualification will prepare students to produce the basic design and fundamental knowledge required to work within the Renewable Energy field. This programme has received endorsement from the Engineering Council of South Africa (ECSA). ECSA will be invited to accredit this programme once offered to assist graduates with professional registration with ECSA.

ADMISSION REQUIREMENTS

- a Senior Certificate (SC); **OR**
- a National Senior Certificate (NSC) **with**;
 - English (Home language or first additional language) on at least level 3 (40-49%);
 - NSC Achievement rating of at least 4 (50-59%) for Mathematics or Technical Mathematics;
 - NSC Achievement rating of at least 4 (50-59%) for Physical Science or Technical Science; **OR**
- a National Senior Certificate – Vocational Level 4 (NC(V)) **with**;
 - NCV Achievement rating of at least 5 (60-69%) in English Language and Mathematics and Engineering Science;

If an applicant's final Grade 12 result for either Mathematics or Physical Sciences (but not both) is between 40% and 49%, and the result for the other subject meets the programme entry requirements, the applicant will be allowed to complete a dedicated bridging course for the subject where the result was below 50%. The applicant must achieve at least 60% in the bridging course to be accepted into the programme.



SPECIFIC REQUIREMENTS

EQUIPMENT REQUIREMENTS

Registered students will be required to have access to the following equipment before their studies can commence:

- Smart device suitable for online learning
- USB to transfer information between devices and locations
- Laptop compatible with software covered in the programme. Student Recruitment can provide minimum device specifications if required.

ADDITIONAL EXPENSES

The following costs may arise during the programme. These are not included in the tuition fees and should be budgeted for accordingly:

- Specialised stationery, textbooks, or equipment
- Printing and presentation costs
- Practical components
- Industry visits (petrol, entrance fees etc)

ACCESS TO TECHNOLOGY

STADIO provides students with materials, resources, assessments (including online tests and quizzes), discussion opportunities, and administrative services through its student administration and learning environments. Access to the online facilities is essential for efficient communication, learning and success. You will need continuous access to study, using the resources mentioned above, and accessing and submitting some assessments.

SYSTEM REQUIREMENTS

Students should also have access to the following resources/systems to ensure a seamless learning experience:

- Reliable broadband internet access (Wi-Fi is available at all our campuses, but you may prefer access from home as well)
- Firefox/Microsoft Edge/Chrome web browser
- Microsoft Word
- PDF Viewer
- Ability to scan and upload documents
- Email/cellphone for notification and communication

PRACTICAL COMPONENTS

STADIO will provide laboratories with all the equipment students need for the practical sessions. Students are also provided with a toolkit and multimeter to use in the laboratories. While the School will furnish specific essential consumables, every student must obtain the needed electronic components and wires to build small electronic circuits for practical experiments. The list of required items will be supplied to students at the start of the semester.

CURRICULUM OUTLINE

SEMESTER 1	1st YEAR	
Compulsory (All)	Electromechanic Technology I	EMTH152 (20 credits)
	Engineering Mathematics I	EMAH152 (20 credits)
	Engineering Physics I	EPHH152 (10 credits)
	Engineering Professional Skills	EPSH152 (20 credits)
SEMESTER 2	1st YEAR	
Compulsory (All)	Renewable Design Project <i>** Electromechanic Technology I (EMTH152) & Engineering Professional Skills (EPSH152)</i>	RDP152 (20 credits)
	Renewable Systems Installation Practice	RSI152 (10 credits)
	Solar and Wind Energy Systems <i>** Electromechanic Technology I (EMTH152)</i>	SWE152 (20 credits)
	Storage and Generation <i>** Electromechanic Technology I (EMTH152)</i>	STG152 (20 credits)
CREDITS PER YEAR	140	

** Prerequisite modules must be successfully completed before enrolling in a higher-level or more advanced module.

CAREER OPPORTUNITIES

ENGINEER SUPPORT STAFF IN RENEWABLE ENERGY FIELD

ENGINEERING TECHNICAL ASSISTANT ON RENEWABLE ENERGY ESTABLISHMENTS

ENGINEERING TECHNICAL ASSISTANT TO ENGINEERING CONTRACTORS

RENEWABLE ENERGY ENGINEERING TECHNICAL ASSISTANT