



Dear students

Do you get fascinated about the natural world and like to follow the weather broadcast every morning? Then you might consider a career in Meteorology. This means that people depend on you for weather knowledge like tomorrow's temperatures or emergency weather situations, such as when hurricanes or tornadoes occur. However, before you can begin forecasting weather, you should know how to become a meteorologist. Let's learn more about this fascinating career!

-Martina

WHAT IS A METEOROLOGIST ?

A meteorologist is a scientist who studies the atmosphere of the earth and the physical processes that take place in it. This implies the study of the composition and movement of air, incoming and outgoing radiation, as well as thermodynamic, electrical and optical phenomena in the atmosphere. Meteorologists also manage the Weather Bureau and keep pace with scientific and technological developments in this profession. The meteorological technician/technologist is responsible for the collection of meteorological information necessary for weather forecasts.

Meteorologist

- Distributing weather forecasts to the public and regularly processing the climatological data.
- Conducting research and improving and developing concepts, theories and operational methods related to the composition, structure and dynamics of the atmosphere.
- Studying data from weather stations, preparing detailed or long-term weather maps and forecasts used in aviation, shipping, agriculture and for the information of the general public.
- Conducting experiments in fog dispersal, rain-making and other types of weather control.

Meteorological Technician/Technologist

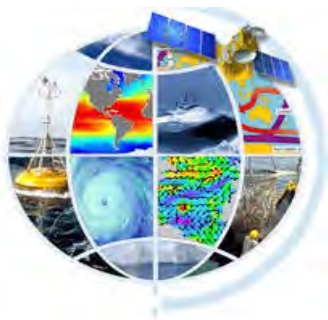
- Distributing weather forecasts to the public and regularly processing the climatological data.
- Operating and maintaining a weather observation network by studying data from weather stations and preparing detailed weather maps and forecasts used in aviation, shipping and agriculture.
- Maintaining apparatuses such as computers, radars and automatic weather stations used for observing the temperature, visibility, atmospheric pressure and clouds.
- Installing, maintaining and developing electronic equipment such as electronic airport systems and weather radar.

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REQUIREMENTS

Secondary Education

A **HIGCSE** Grade 12, or equivalent qualification, with matriculation exemption is required for university studies in South Africa (to become a meteorologist). For enrolment at South African technikons a HIGCSE or outstanding **IGCSE** Grade 12, or equivalent qualification, will be required (to follow the technician route namely technician or technologist.)

Compulsory subject

Mathematics and Physical Science HIGCSE level (South Africa)

Mathematics with at least a C-symbol on IGCSE level (**UNAM**)

Recommended subjects

None

Tertiary Education

To be appointed as a meteorologist a three-year **BSc.** Atmospheric Sciences: Meteorology is the minimum requirement. It can be completed at universities in South Africa. A BSc. (Hons.) degree with Applied Mathematics, Physics or Mathematical Statistics as major subject is required to register as a professional meteorologist.

A BSc. degree at UNAM with Mathematics and Physics can be followed by one year's specialization in Meteorology. The specialization course is, however, not offered in Namibia, but the Institute of Meteorology in Kenya offers a two year certificate in Meteorology. For appointment as meteorological technician or technologist a **NDip.:** or **BTech.:** Meteorology can be obtained from the technikons in South Africa.

Practical training: candidates must undergo practical training under the supervision of a senior officer at the Weather Bureau. Training consists of weather observation, operating meteorological instruments and weather forecasting.

Personality

A meteorologist should:

- be curious and imaginative;
- be able to communicate clearly in both speech and writing;
- have good judgement;
- be responsible;
- be able to concentrate well, even under stress;
- have a mathematical and scientific aptitude.

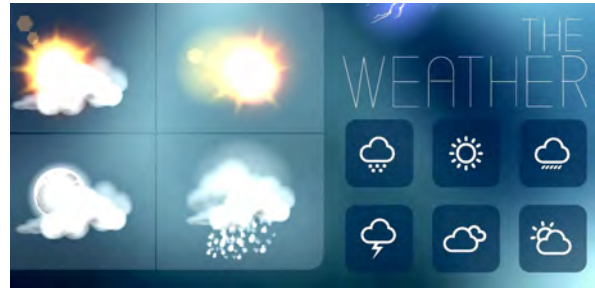
Work Opportunities

- the Ministry of Works, Transport and Communication, Min of Agriculture
- Weather Bureau
- Universities



SKILLS AND TRAITS NEEDED TO BECOME A METEOROLOGIST

In order to become effective in a career as a meteorologist, you need to possess the following skills and personality traits, as they will allow you to perform your job with competence, and allow you to survive the challenges of this career, regardless of which area of specialization you choose.



- A natural aptitude and education in mathematics and science
- Take enjoyment from the challenge of applying basic scientific principles to better understanding the behaviour of the atmosphere
- Able to use specialized computer programs, satellites and other sophisticated research tools
- Able to effectively communicate findings with other professionals
- Able to apply theoretical concepts and analyze large volumes of information
- Take enjoyment from organizing and conducting research
- Able to prepare detailed forecast and research reports
- An interest in using your knowledge to warn others when danger is approaching, such as in the form of tornadoes and hurricanes
- May require public speaking skills (such as for broadcast meteorologists)



we're on the web:

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References : Namibia Careers , Pace careers

Previous newsletters can be found on the TUCSIN
website:

<http://www.tucsin.org/index.php/en/project/documents-for-students/career-prospect>.