

KENYAN VARSITY COURSES THAT DIRECTLY REQUIRE PHYSICS AS A SUBJECT

B. Meteorological Careers in Kenya

What is Meteorology?

This is the study of the atmospheric behaviour and its effects on the people of our planet.

Examples of these atmospheric behaviours are such as rain, drought, and natural calamities such typhoons, tornadoes and earthquakes etc.

Who is a Meteorologist?

A meteorologist as a person with specialized education "who uses scientific principles to explain, understand, observe, or forecast the earth's atmospheric phenomena and/or how the atmosphere affects the earth and life on the planet." This education usually includes a bachelor's or higher degree from a college or university.

What do Meteorologists do?

In weather forecasting, they'll need to:

- i. collect data from satellite images, radar, remote sensors and weather stations all over the world
- ii. measure factors such as air pressure, temperature and humidity at various atmospheric levels
- iii. analyse and present this information to customers in the form of weather briefings

- iv. code weather reports for transmission over international networks
- v. apply physical and mathematical relationships and sophisticated computer models to make short and long-range weather forecasts
- vi. Liaise with colleagues and clients from around the country and worldwide.

In research, they'll need to:

- i. investigate subjects such as airflow in the lowest kilometer of the atmosphere, the physics of clouds and precipitation, or global climate change
- ii. develop and improve numerical and computer models to predict atmospheric processes and improve the accuracy of forecasts
- iii. monitor climate variability and change
- iv. research seasonal forecasting, ocean forecasting and climate prediction
- v. monitor and investigate changes in the stratosphere (ten to 50km above the Earth), including the ozone layer
- vi. Apply the results of research in order, for example, to give flood warnings or estimate the likely effects of global warming.

How much do the meteorologists earn in the world and in Kenya?

In the developed world, meteorologists earn from Ksh.2,059,900/year (Ksh.171,000/Month) for new recruits up to Ksh.6,179,700/year (Ksh.514,000/Month) for experienced and managerial workforce. This figure may increase due to allowances.

In Kenya, meteorologists wages are phenomenal just as their job description because the figures are not yet in the public domain but by comparing with South Africa which is a bigger economy and with a greater wage bill than Kenya, Our assumptions are that Kenyan Meteorologists take

home anything from Ksh.45,000/Month to Ksh.300,000/Month depending on the sector one works and the experience. Private sector and United Nations however pay higher than other sectors.

Who will employ you after college/varsity?

The following firms are potential employers of meteorologists

- i. National Government
- ii. Research firms
- iii. Insurance firms
- iv. Army
- v. United Nations
- vi. County Governments
- vii. National weather service (Kenya meteorological services)
- viii. Media such as Television/Radio Stations
- ix. Schools such Universities and Colleges
- x. Agriculture and fish institutes
- xi. Mining industries
- xii. Aviation/Marine transport industry

Which subjects do I require to pursue a degree course in Kenya?

- **Overall grade – C+**
- **Subject 1: MATHEMATICS ALT.A - C+**
- **Subject 2: PHYSICS - C+**
- **Subject 3: GEOGRAPHY/CHEMISTRY - C (PLAIN)**

- **Subject 4:** a GROUP II or any GROUP III or any GROUP IV or any GROUP V

Available Courses from the Qualifications Above

Bachelor of Science (Geophysical and Mineralogy)

Bachelor of Science (Earth Science, With IT)

Bachelor of Science (Meteorology)

Bachelor of Science (Geology)

Bachelor of Science (Astronomy and Astrophysics)

Bachelor of Science (Geophysics)

Bachelor of Science (Hydrology and Water Resources Management)

Universities that offer Meteorology and related courses and cutoff points

Bachelor of Science (Meteorology)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1166110	SOUTH EASTERN KENYA UNIVERSITY	25	25	23	24.584
1263110	UNIVERSITY OF NAIROBI	38.614	31.939	31.016	27.758

Bachelor of Science (Geophysical and Mineralogy)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1087579	KISII UNIVERSITY	31.531	31.876	29.574	22.741

Bachelor of Science (Earth Science, With IT)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1229210	MASENO UNIVERSITY	25	25	23	23.396

Bachelor of Environmental Studies (Earth Sciences)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1165339	MAASAI MARA UNIVERSITY			23	24.698

Bachelor of Science (Geology)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1166113	SOUTH EASTERN KENYA UNIVERSITY	25	28.311	23	23.571
1263113	UNIVERSITY OF NAIROBI	35.551	37.264	34.972	34.979

Bachelor of Science (Astronomy and Astrophysics)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1263127	UNIVERSITY OF NAIROBI	37.697	39.207	37.585	33.545

Bachelor of Science (Geophysics)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1249377	JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY			31.35	32.583

Bachelor of Science (Hydrology and Water Resources Management)

CODE	UNIVERSITY	2013 COP	2014 COP	2015 COP	2016 COP
1166487	SOUTH EASTERN KENYA UNIVERSITY	25	25	23	24.205

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