BSC. MAJOR IN METEOROLOGY

Through our affiliate institution, the Caribbean Institute for Meteorology & Hydrology, a Major and Minor in Meteorology are offered. The Meteorology programme covers the physics and dynamics of the atmosphere to explain the direct effects of the atmosphere upon the Earth's surface, oceans and life. The goals of the programme are to help the students attain the best possible understanding and prediction of atmospheric phenomena in all temporal and spatial scales.

Students will discover:

- A thorough knowledge and understanding of the basic physical principles of thermodynamics and why the theory of electromagnetic radiation is essential.
- The study of atmospheric motions as solutions of the fundamental equations of hydrodynamics and thermodynamics.
- The study and analysis of weather information taken concurrently to identify synoptic-scale and mesoscale weather systems, diagnose their structure, and qualitatively anticipate their future evolution.
- The special nature of the tropical atmosphere.

The Meteorology programme consists of eleven (11) core courses plus three (3) electives.

- METE1110 - Introduction to Oceans & Climate (3 credits)
- METE1125 - Meteorological Observations, Instruments and Basic Analyses (3 credits)
- METE1130 - Introduction to Physical Meteorology (3 credits)M
- ETE1135 - Introduction to Dynamic Meteorology (3 credits)

Provided below is a complete list of all the courses offered in the Major in Meteorology:

MAJOR IN METEOROLOGY:

LEVEL I

METE1110 Introduction to Oceans and Climate
METE1125 Meteorological Observations, Instruments & Basic Analysis
METE1130 Introduction to Physical Meteorology
METE1135 Introduction to Dynamic Meteorology
MATH1190 Calculus A
MATH1195 Calculus B

LEVEL II

METE2110 Atmospheric Thermodynamics
METE2120 Physical Meteorology
METE2125 Dynamic Meteorology
METE2210 Synoptic Meteorology
METE2215 Synoptic Meteorology Lab I
PHYS2400 Mathematical Methods in Physics

LEVEL III
METE3110 Advanced Dynamic Meteorology
METE3210 Advanced Synoptic Meteorology
METE3215 Synoptic Meteorology Lab II
METE3310 The Tropics and Tropical Weather Systems

AND at LEAST Three (3) Credits from:
METE2305 Fundamentals of Hydrometeorology
METE3420 Radar Meteorology
METE3425 Satellite Meteorology
METE3505 Climate, Biosphere and Ecosystems
METE3600 Numerical Weather Prediction and Computational Methods

MINOR IN METEOROLOGY [Fifteen (15) Level II/III Credits]:

METE1110 Introduction to Oceans and Climate
METE1125 Meteorological Observations, Instruments & Basic Analysis
METE1130 Introduction to Physical Meteorology
METE1135 Introduction to Dynamic Meteorology
MATH1190 Calculus A
MATH1195 Calculus B
METE2125 Dynamic Meteorology
METE2210 Synoptic Meteorology
METE2215 Synoptic Meteorology Lab I

AND Three (3) Credits from:
METE2110 Atmospheric Thermodynamics
METE2120 Physical Meteorology

AND Four (4) Credits from:
METE3110 Advanced Dynamic Meteorology
METE3210 Advanced Synoptic Meteorology*
METE3310 The Tropics and Tropical Weather Systems

***MUST be taken together with METE3215 Synoptic Meteorology Lab II**

Equivalences Between Old and New Meteorology Courses for the Purpose of Fulfilling Major and Minor Requirements

OLD 4-CREDIT COURSE	NEW 3-CREDIT COURSE
METE1200 Oceans and Climate	METE1110 Introduction to Oceans and Climate
METE1000 Introduction to Physical Meteorology and Weather Observations	METE1130 Introduction to Physical Meteorology METE1125 Meteorological Observations, Instruments and Basic Analysis
METE1100 Introduction to Dynamic Meteorology and Weather Systems	METE1135 Introduction to Dynamic Meteorology
METE1300 Climate Change Education and Awareness	METE1305 Introduction to Climate Change and Society
METE2000 Physical Meteorology I	METE2110 Atmospheric Thermodynamics
METE2001 Physical Meteorology II	METE2120 Physical Meteorology
METE2100 Dynamic Meteorology I	METE2125 Dynamic Meteorology
METE2200 Synoptic Meteorology I	METE2210 Synoptic Meteorology METE2215 Synoptic Meteorology Lab I
METE2300 Hydro- Meteorology	METE2305 Fundamentals of Hydrometeorology
METE3100 Dynamic Meteorology II	METE3110 Advanced Dynamic Meteorology
METE3200 Synoptic Meteorology II	METE3210 Advanced Synoptic Meteorology METE3215 Synoptic Meteorology Lab II
METE3300 Tropical Meteorology	METE3310 The Tropics and Tropical Weather Systems METE3420 Radar Meteorology
METE3400 Weather Radar and Satellite	METE3425 Satellite Meteorology METE3505 Climate, Biosphere and Ecosystems
METE3500 Bioclimatology	METE3600 – Numerical Weather Prediction and Computational Methods

The Meteorology programme prepares students for careers in all areas related to Meteorology, including Weather Forecasting, Climatology, Atmospheric Research, Climate Monitoring and Research, Environmental Consulting and Air Quality Management. The breadth of the programme allows students to compete in related fields, such as Aeronautical Meteorology, Environmental and Computer Science, Hydrology, and Alternative Energy Utilization.

This programme is aligned to the World Meteorological Organization (WMO) Basic Instruction Package for Meteorologists (BIP-M). The BIP-M is described in the WMO publication: Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology, Volume I - Meteorology WMO-No. 1083 (2015); and is specified in terms of learning outcomes. The Major meets the World Meteorological Organization core requirements for meteorologists, enabling graduates to pursue careers in Meteorology and related sciences internationally.

Therefore, if students are interested in pursuing careers in any of the abovementioned fields, then this degree is for you!

For further details about the Meteorology programme, contact Ms. Kathy-Ann L. Caesar (Programme Coordinator) via email at kacaesar@cimh.edu.bb, or Dr. David Farrell (Principal of the Caribbean Institute for Meteorology and Hydrology – CIMH) at dfarrell@cimh.edu.bb, or via telephone at (246) 425-1362/63.