THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Meteorology

MET 201- CODES, OBSERVATIONS AND PLOTTING PRACTICE

COURSE PARTICULARS

Course Code: MET 201
Course Title: Codes, Observations and Plotting Practice
No. of Units: 2
Course Duration: Two hours of theory per week for 15 weeks.
Status: Compulsory
Course Email Address:eaadefisan@futa.edu.ng.
Course Webpage:http://www.met.futa.edu.ng/courseschedule.php?coursecode=MET%202041
Prerequisite: MET 101

COURSE INSTRUCTORS

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COURSE DESCRIPTION

This course is the first course in operational meteorology and it is designed primarily for students in Meteorology. It introduces the students to measurements of most meteorological variables with minimal error. The different coding techniques and formats are also introduced to the students. Making the observation understandable to other meteorologist without the fear of language barrier by using the necessary codes are deeply explained to the students while plotting these codes on charts is also introduced to the students.The focus is to expose students to differentforms of codes, WMO approved International Codes (AAXX), (PPAA & PPBB) and

(TTAA), (TTBB), and coding of Meteorological variables (wind, visibility, weather, temperature etc), and other derived variables (QFF, QNH, Dew point etc). Detailed study of meteorological instruments (Thermometer, wind vane, sunshine recorder, hygrometer etc.); Autographic Instruments (Barograph, Thermograph hygrograph, Pressure – dine anemograph etc); Simple care and maintenance of the instruments. Other topics shall include:

The Stevenson Screen (features and significance); Meteorological enclosure (site, location, exposures of instruments); Plotting of codes on meteorological weather charts, and the conversion of plotting to codes to observation vice versa.

COURSE OBJECTIVES

The objectives of this course are to:

- introduce students to different forms of codes for operational Meteorology; and
- acquit students with the setting, features and working principles of an Observatory.

COURSE LEARNING OUTCOMES / COMPETENCIES

Upon successful completion of this course, the student will be able to:
(Knowledge based)

- state the essence of each component in an Meteorological Station;
- know all the basic Meteorological instruments and what they measure;
- interpret the codes;
- communicate coded information between different Met Stations.

(Skills)

- use the experience of the course to:
    - communicate coded Meteorological information from one station to another;
    - code and decode Meteorological information;
    - Set up a standard Observatory.

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Assignments	20%
Test(s)	20%
Final Examination	60%
TOTAL	**100%**

GENERAL INSTRUCTIONS

Attendance: It is mandatory for every student to attend lectures and also participate in class work. Attendance records will be kept and used to determine each person's qualification to sit for the final examination. In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with any of the instructors, indicating the reason for the absence.

Academic Integrity: Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances are prohibited. You are not allowed to make copies of another person's work and submit it as your own; that is plagiarism. All cases of academic dishonesty will be reported to the University Management for appropriate sanctions in accordance with the guidelines for handling students' misconduct as spelt out in the Students' Handbook.

Assignments and Group Work:Students are expected to submit assignments as scheduled. Failure to submit an assignment as at when due will earn you zero for that assignment.Only under extenuating circumstances, for which a student has notified any of the instructors in advance will late submission of assignments be permitted.

Code of Conduct in Lecture Rooms and Laboratories: Students should turn off their cell phones during lectures. Students are prohibited from engaging in other activities (such as texting, watching videos, *etc*.) during lectures. Food and drinks are not permitted in the laboratories.

READING LIST

[2, 4]W.M.O Compendium Lecture Book (2000):Codes, Observation and Plotting.

Legend
1- Available in the University Library
2- Available in Departmental/School Libraries
3- Available on the Internet.
4- Available as Personal Collection
5- Available in local bookshops.

COURSE OUTLINE

Week	Topic	Remarks
1	Introduction and Course Overview. Basic definitions of some keywords	During this first class, the expectation of the students from the course will also be noted.
2 & 3	Different forms of codes,	Students are expected to participate
4 & 5	WMO approved International Codes (AAXX), (PPAA & PPBB) and (TTAA), (TTBB)	Class exercise will be given to test their understanding
6	Coding of Meteorological variables (wind, visibility, weather, temperature etc), and other derived variables (QFF, QNH, Dew point etc).	Assignment will be given.
7 & 8	Meteorological instruments (Thermometer, wind vane, sunshine recorder, hygrometer etc.); Autographic Instruments (Barograph, Thermograph hygrograph, Pressure – dine anemograph etc); Simple care and maintenance of the instruments.	 MID-SEMESTER TEST
9 & 10	The Stevenson Screen (features and significance);	
11 & 12	Meteorological enclosure (site, location, exposures of instruments);	
13 & 14	Plotting of codes on meteorological weather charts, and the conversion of plotting to codes to observation vice versa.	
15	REVISION	This is the week preceding the final examination. At this time, evaluation will be done to assess how far the students' expectations for the course have been met.