**-SQA-SCOTTISH QUALIFICATIONS AUTHORITY**

**Hanover House**
**24 Douglas Street**
**GLASGOW G2 7NG**

# NATIONAL CERTIFICATE MODULE DESCRIPTOR

**-Module Number-** **0078689** **-Session-1987-88**

**-Superclass-** **RF**

**-Title-** **UNDERSTANDING WEATHER ($x^1/_2$)**

**-DESCRIPTION-**

Type and Purpose

A general module which enables the student to acquire some basic weather skills and to appreciate the meteorological environment.

Preferred Entry Level

No formal entry requirements.

Learning Outcomes

The student should:

1. use instruments and standard publications to observe weather elements.
2. know the conditions necessary for the formation of dew, frost, fog, thunderstorms.
3. know the ten World Meteorological Organisation cloud types and basic forms of precipitation.
4. know the principal effects of weather on human society.
5. find wind speed and direction from isobars.

Content/ Context

Corresponding to Learning Outcomes 1-5:

1. Observations of pressure, pressure tendency temperatures, rainfall, cloud type and amount, weather and wind.
2. Conditions necessary for the formation of different types of dew, radiation fog, advection fog, hoar frost, rime, glaze frost, thunderstorms.

3. The WMO 1O basic cloud types. Precipitation- rain, drizzle, hail and snowflakes.

4. Weather and housing, transport, social life, art, sport.

5. Buy Ballots Law. The use of the geostrophic scale.

Suggested Learning and Teaching Approaches

1. Initially lectures followed by practical work involving as much 'hands on' experience as possible.

2. Mainly lectures. Visual aids where possible.

3. Initially lectures, then 'practical' using sky, slides and photographs. BBC TV 'under the weather' series on cloud formation or suitable film if available.

4. Initially lectures. Practical exercises and work sheet.

5. Resource based project work. Each individual to work on some aspect of 'human meteorology'. Chosen by individual student where possible.

Assessment Procedures

All Learning Outcomes must be validly assessed.

The student must be informed of the tasks which contribute to summative assessment. Any unsatisfactory aspects of performance should, if possible, be discussed with the student as and when they arise.

Acceptable performance in the module will be satisfactory achievement of the performance criteria specified for each Learning Outcome.

Where cutting scores are stated these are intended to be for guidance. The precise cutting score for a test will depend on the difficulty of the test and will have to be decided by the Tutor aided by the Assessor.

The following abbreviations are used below:

LO Learning Outcome
IA Instrument of Assessment
PC Performance Criteria

LO1 IA Practical/written exercise. The student is required to measure and record temperature, pressure, pressure tendency, humidity,

rainfall, cloud type and amount, weather and wind over a period of one month.

PC The performance criteria should be based on the accuracy of the measurement and of the recording.

LO2 IA Written examination. Ten short answer questions on the conditions necessary for the formation of dew, frost, fog and thunderstorms.

PC Cutting score 7O%.

LO3 IA Identification test. The student is required to identify: seven cloud types and three forms of precipitation.

PC Cutting score 8O%.

LO4 IA Written project. The student is required to investigate and describe the impact of weather on an aspect of human society.

PC The performance criteria should be based on:

(I) the pertinence of the research carried out;

(ii) the validity of the cause and effect relationships reported;

(iii) the adequacy of the evidence collected;

LO5 IA Practical/graphical exercise. Given a weather map the student is required to calculate the wind speed and direction.

PC The calculated speed should be correct within 1O-15% and the direction should be accurate.