

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

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

NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0068692 **-Session-1986-87**
-Superclass- RF

-Title- **SYNOPTIC METEOROLOGY (x¹/₂)**

-DESCRIPTION-

Type and Purpose A general module (¹/₂) which enables the student to make a general forecast using a synoptic chart.

Preferred Entry Level 0068690 Meteorological Instruments and Forecasts
0068691 Physical and Dynamical Meteorology

Learning Outcomes The student should:

1. identify the principal air masses and know the weather pattern associated with each of them over the British Isles;
2. identify warm, cold and occluded fronts and know their associated weather;
3. identify the main synoptic patterns and know their associated weather;
4. interpret a synoptic chart to make a general short range forecast.

Content/Context Corresponding to the Learning Outcomes:

1. Air masses: formation, properties, modification and weather pattern for the principal air masses affecting the British Isles.
2. Fronts: definitions, symbols and associated weather for warm, cold and occluded fronts.

3. Synoptic patterns: definitions, sketch of isobars and associated weather for:
 - (i) depression;
 - (ii) trough;
 - (iii) anticyclone;
 - (iv) ridge;
 - (v) col;
 - (vi) family of depressions.

4. Forecasting:
 - (i) drawing of synoptic charts for combinations of isobaric systems;
 - (ii) identification of air masses, synoptic patterns, strong winds, cloud, fog and precipitation.

Suggested
Learning
and Teaching
Approaches

Corresponding to all the Learning Outcomes:

A mainly didactic approach to the theory, but with discussions centred upon "notable" weather events (preferably within the students' experiences).

Daily discussion of the weather situation in relation to the synoptic chart and TV radio forecasts. If possible individual students or groups should take it in turn to give the weather forecast each day.

Audio-Visual material such as films, video and model depressions should be used.

Assessment
Procedures

Corresponding to Learning Outcomes 1-4 inclusive:

The student should be shown a synoptic chart and from this should be required to produce a reasoned general short range forecast and to justify it in the face of oral questioning by the tutor. Satisfactory performance will be the production of a reasoned, justified general short range forecast on three separate occasions. Each synoptic chart used should contain different information.