

**-SQA-SCOTTISH QUALIFICATIONS AUTHORITY**

**Hanover House  
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**NATIONAL CERTIFICATE MODULE DESCRIPTOR**

**-Module Number- 0064729 -Session-1986-87**

**-Superclass- YD**

**-Title- PATTERNMAKING METHODS 2**

**-DESCRIPTION-**

Type and Purpose A specialist module which extends the student's understanding of patternmaking methods.

Preferred Entry Level 04728 Patternmaking Methods 1.

Learning Outcomes The student should:

1. know the methods used to produce pattern equipment and the effect these methods have on foundry production systems;
2. produce:
  - (a) patternmaker's layouts for a variety of castings;
  - (b) sketches, pattern equipment and castings;
3. know and comply with regulations and procedures and use safe working practices specified for equipment and work areas.

Content/ Context Corresponding to Learning Outcomes:

1. consideration of:
  - (a) patternmaking joints, methods of minimising warping and shrinkage;
  - (b) pattern construction for box, segment, solid, split, open joint and lagged pattern and corebox equipment;

- (c) oddsides, follow boards, stopping-off, cover cores, coreprints;
  - (d) dowels, rapping and lifting, fillets, adhesives, colour codes;
  - (e) plated patterns, methods of mounting patterns.
2. preparation of patternmaker's sketches of pattern equipment and castings.
  3. safety precautions applicable to tools, equipment and work areas.

Suggested Learning and Teaching Approaches

The learning outcomes should be experienced in an environment appropriate to the module activities.

Demonstrations and student centred activity should be used where possible and supplemented by videos, films and works visits.

Safety, safe practices, care and use of equipment should be an integral part of each module activity.

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.

The following abbreviations are used below:

LO Learning Outcome

IA Instrument of Assessment

PC Performance Criteria

LO1 IA Short answer questions.

PC The student satisfactorily describes the main methods used to produce pattern equipment and the implications of these methods on the nature of foundry production systems.

LO2 IA Graphical communication exercise.

PC The student should produce to acceptable standards:

- (a) a patternmaker's layout; a drawing from the layout should include sufficient detail to determine the pattern construction method and the foundry production methods;
  - (b) sketches of pattern equipment and a number of castings, with sufficient information to illustrate the effect of patternmaking methods selected on foundry production methods.
- LO3 IA Observation check list (in which the following elements must be included).
- PC The student consistently:
- (a) wears all necessary safety clothing and equipment;
  - (b) behaves in a manner appropriate to the working environment;
  - (c) uses tools and equipment safely.