

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0069147 -Session-1986-87
-Superclass- PF

-Title- DENTURE FLASKING, PACKING AND PROCESSING
(x 1/2)

-DESCRIPTION-

Type and Purpose A Specialist Module (1/2) which is designed for Dental Technology students who require a knowledge of the principles of flasking, packing and processing of acrylic dentures.

Preferred Entry Level 09142 Dental Casts

Learning Outcomes The student should:

1. prepare dentures for flasking;
2. know the types of flasks that may be used and their maintenance;
3. know flasking procedures and carry out procedures for upright and inverted methods of flasking;
4. explain and carry out the procedure for packing/processing acrylic resin;
5. demonstrate safe working practice in the laboratory.

Content/Context Corresponding to Learning Outcomes 1 - 5:

1. Preparation of wax denture and cast:
 - (a) denture properly sealed to the cast;
 - (b) teeth properly attached to wax base.

2. Types of flasks:

- (a) two part flask;
- (b) four part flask;
- (c) injection flask;
- (d) pour cure flask.

Maintenance of flasks:

- (a) flask clean and free of plaster debris;
- (b) parts of the flask fit together properly;
- (c) inside of the flask lubricated to facilitate ease of deflasking.

3. Methods of flasking:

- (a) inverted and upright methods;
 - (i) investing the cast to the periphery if using the inverted method,
 - (ii) investing the cast and covering the teeth with a strong wall with no undercuts in the mould if using the upright method,
 - (iii) application of separating material to the flasking plaster surfaces,
 - (iv) pouring the topping material and closing the parts of the flask together,
 - (v) opening the flask by using wet or dry heat to soften the wax and elimination of the wax residue using boiling water and a soapless detergent,
 - (vi) removing sharp edges from the mould and any imperfections. Application of the separating material to the surface of the mould.
- (b) an introduction to injection moulding and pour cure methods.

4. (a) Packing of mould:

- (i) monomer/polymer ratio;
- (ii) soft dough;
- (iii) pourable resin ratio.

(b) Processing of acrylic resin:

- (i) wet heat;
- (ii) dry heat;
- (iii) quick cure;
- (iv) cold (self) cure.

5. Safe use of heating apparatus, monomer and polymer apparatus, safe precautions for monomer and polymer dust, with particular reference to safety precautions needed to protect eyes and skin.

Suggested
Learning and
Teaching
Approaches

Relating to Learning Outcomes 1 - 5:

This is a practical-based module in which the majority of the time will be spent in practising skills to achieve a satisfactory standard of work.

1&2 A collection of demonstration models, visual aids and existing prepared dentures, casts and flasks could be shown to the student during a short lecture and discussion which should be followed by practical work.

3&4 The whole procedure for flasking, packing and processing should be demonstrated using a series of pre-prepared flaked and processed dentures at different stages in their construction. In this way the time factor is eliminated and the student can gain an overview of the tasks he/she will be required to carry out. The student should subsequently under constant guidance, flask, pack and process dentures.

These Learning Outcomes may be achieved through a series of practical exercises, each with its own formative assessment, by oral questioning and inspection of the student's work. There should be scope for remediation.

5. The safety procedures should be demonstrated and subsequently discussed frequently throughout the module.

Assessment
Procedures

Relating to Learning Outcomes 1 - 5:

1. Observation of performance in practical work and the use of a checklist to indicate satisfactory performance:

- (a) the denture is properly sealed to the cast;

- (b) the teeth are properly attached to the wax base;
 - (c) the model is trimmed to fit the flask if relevant.
2. A short answer or objective test of eight questions held when appropriate during the module. A satisfactory performance will be seven correct answers.
- 3 (a) A short answer test of 10 questions. A satisfactory performance will be 8 correct answers.
- (b) Observation of performance in practical work and the use of a checklist to indicate satisfactory performance for:
- 1) preparation of denture,
 - 2) preparation of flask,
 - 3) mixing correct consistency of plaster,
 - 4) mixing correct quantity of plaster,
 - 5) position in flask,
 - 6) plaster work,
 - 7) application of separating mediums,
 - 8) topping off,
 - 9) opening out,
 - 10) boiling off wax,
 - 11) checking and correction of faults,
 - 12) application of plaster/acrylic separating medium.

When formative assessment shows that the student can perform each of the checklist procedures he/she should be credited with the Learning Outcome.

4. By observation of performance in practical work and oral questioning and the use of a checklist to indicate a satisfactory performance in both practical work and in explaining the procedure.

- 4.1 Monomer/polymer ratio - to prevent excess monomer in the mix which may set up an allergy of the patients tissues.
- 4.2 Packing at the dough stage - to fill the mould and compress the resin into shape.
- 4.3 Removing excess material - to prevent increasing vertical dimensions of the jaws.
- 4.4 Correct processing time/temperature to prevent gaseous porosity.
- 4.5 Bench cooling the flask after processing to prevent warpage of the acrylic resin.
5. Observation during practical activities and the use of a checklist.

Safe procedure observed for:

electrical equipment;
bunsen burner;
instruments;
acrylic materials;
eye protection;
face protection.

Performance Criteria.

Learning Outcome 2:

The exact score required will depend on the difficulty of the test but is unlikely to be less than 70% correct response.

Learning Outcomes 1, 3, 4 & 5:

The student can carry out all the requirements of each Learning Outcome. This will be indicated by completion of all the items on the respective checklists.

For Learning Outcomes 1,2,3,4 and 5 the standard to be achieved will be a matter for the professional judgement of the tutor aided by the Council's assessor.

Award of the module will depend on satisfactory achievement of all the Learning Outcomes.