

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0069145 **-Session-1986-87**
-Superclass- PF

-Title- DENTAL SURVEYING (x 1/2)

-DESCRIPTION-

Type and Purpose A Specialist Module (1/2) for Dental Technology students. Its purpose is to introduce the principles and practice of Dental Surveying.

Preferred Entry Level 09142 Dental Casts

Learning Outcomes The student should:

1. know the parts of the surveyor and the functions of its associated surveying instruments;
2. know the purpose of survey lines and how they are classified;
3. be able to use surveying instruments to survey casts.

Content/Context Corresponding to Learning Outcomes 1 - 3:

1. Surveyor base, column and horizontal arm with chuck for holding instruments. The analysing table, its correct position level with the operator's eyes, the correct placing of the cast on the table with the alveolar ridge, occlusal surface or incisal edge of the teeth in a horizontal plane, parallel to the base of the surveyor.

Surveying Instruments.

Analysing Rod:- to locate undercuts on teeth and tissue in the various tilt positions.

Carbon marker:- to mark points of widest contour on teeth and tissue.

Chisel:- to make parallel the blocking-out material.

Undercut Gauges:- to measure the depth of undercut prior to clasping.

Types of Gauge -

- (a) 0.25 mm: used to indicate depth of undercut appropriate for cobalt chromium clasps;
- (b) 0.5 mm: used to indicate depth of undercut appropriate for cast gold alloy clasps and maximum tissue displacement;
- (c) 0.75 mm: used to indicate depth of undercut appropriate for wrought alloy clasps.

2. Survey Lines purposes:

- (a) indicate non-undercut area of tooth or tissue;
- (b) indicate undercut area;
- (c) identification of usable and unusable undercuts;
- (d) suggest the type of clasp.

Fundamental Survey Lines.

Class 1

A survey line low on clasping side of tooth and high opposite.

Class 2

A survey line high on clasping side and low opposite.

Class 3

A survey line high on both sides of the tooth.

3. Surveying Procedure.

Affixing of cast (model) to movable surveyor table.

Insertion of analysing rod in surveyor arm.

Tilting table if required and lock in position.

Circumscribing all the abutments with the analysing rod.

Selection of path of insertion.

Marking of tracings on teeth with carbon marker.

Assessment of severity of the undercut by using an undercut gauge.

Designing the base plate with a pencil without removing the cast from the surveyor table.

Blocking-out unwanted undercuts with plaster or hard wax.

Ensuring that the blocking-out material does not cover any portion of the survey line.

Insertion of paralleling chisel in surveyor arm.

Paralleling the blocked-out area.

Avoidance of chiselling the teeth at all costs, or damaging the cast.

Tilting Rules.

Rule 1

For posterior saddles (not free-end) tilt: horizontal (generally to distribute the undercut areas evenly).

Rule 2

For free-end posterior saddles tilt: one that will provide a survey line suitable for a back-action clasp.

Rule 3

For anterior saddles tilt: posterior (for aesthetic reasons) it disposes of anterior abutment undercuts.

Rule 4

For complex cases tilt: horizontal (generally) except where existing local conditions dictate otherwise.

Suggested
Learning and
Teaching
Approaches

Relating to Learning Outcomes 1 - 3:

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. An initial demonstration and lecture can be followed in subsequent practical sessions by asking the student, first to name the parts and later to check, before the start of work, that the surveyor and its instruments are complete and in working order.
2. Illustrated lectures and demonstrations.

3. A series of demonstrations and practical tasks.

Assessment
Procedures

Relating to Learning Outcomes 1 - 3:

Formative assessment by oral questioning and/or short written tests and observation of practical work as appropriate, but normally soon after the initial learning so that the student is kept informed of his/her progress, and remedial help can be given if necessary.

- 1-2. Once a student has satisfied the tutor that no further remedial action is necessary then the last test referred to in the formative assessment will be taken as evidence that each Learning Outcome has been achieved.
3. Observation of performance in practical work and the use of checklists to indicate competent performance in surveying procedure as indicated under content.

Performance Criteria.

Learning Outcomes 1 and 2:

The performance in tests should indicate that the student has mastered the content required for Learning Outcomes 1 and 2. The exact score required depends on the difficulty of the test set and cannot be fully judged in advance: it is however unlikely to be less than 75% correct response.

Learning Outcome 3:

The student can carry out the surveying procedure in either an edentulous or dentate cast.

For Learning Outcomes 1,2 and 3 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.