The University of Jordan

Faculty of Dentistry

Clinical Periodontology Log Book

2013/2014

4th YEAR

Student name :

Student number :

Group # :

Contents :

Periodontology Student Clinic Manual (2015/2016)

This manual is intended to serve as a guide to the procedures and protocols applied in the periodontology student clinics. These pertain to both, the 4th and 5th clinical years. This manual is not all inclusive and is subject to modification as circumstances warrant. Please note that the student clinical manual "الدليل السريري الطالب" outlines the general rules and policies in all student clinics and you are required to adhere to these policies.

1. STUDENT EVALUATION:

Different aspects of the student's performance will be evaluated. These include: student's clinical skills in patient interview and history taking, establishing a diagnosis and formulating a treatment plan; competence in the provision of appropriate periodontal therapy and oral hygiene education; professional appearance and conduct; punctuality; adherence to cross-infection control protocols and general cleanliness. The exact breakdown of the marks allocated to each aspect will be described in the course outline.

2. PATIENT CARE PROVISION:

All patient information and findings, diagnosis and treatment plan in addition to entering notes on the treatment provided will be documented in the patient's file. This

logbook will be used to document your progress and grade the procedures you perform. Along with the standard forms present in the patient file (Medical History Review, Exam and Tx plan, ... etc), you are required to attach a "Periodontal Chart" form to the patient file and fill it appropriately. A more detailed description of how to fill out and use this forms is provided later in this manual.

At the beginning of the session, you will receive a set of instruments, a sonic scaler handpiece, low-speed handpiece, and the usual disposables. You are supposed to return these instruments and equipment CLEAN and free of visible debris or blood and placed inside the appropriate sterilization bags. Although this is obligatory, remember that you are doing this, mostly, as a courtesy to your colleague who is going to use the instruments next.

If you and your patient are ready to start the clinical examination, you MUST inform the attending faculty BEFORE starting the exam. DO NOT start performing periodontal probing before obtaining a medical history! Not only is this poor patient management but it could be, in certain cases, detrimental to the patient's health.

After completing the clinical examination, determine the diagnosis and formulate a treatment plan. Before calling the attending faculty to review the case, MAKE SURE you are ready:

1. The instrument tray should be clean, uncluttered, and free of dirty gauze and cotton rolls.
2. The intra-oral mirror dry and clean.
3. The mirror, periodontal probe and dental explorer grouped separately from the rest of the instruments.
4. Two clean gauze available on the tray.
5. Have the patient rinse and make sure the teeth are free of clots of blood

The attending faculty will review the data and confirm the findings and discuss the case with the student. DO NOT PROVIDE THERAPY without clear authorization from the instructor to do so. DO NOT administer local anesthesia without receiving a specific approval to do so.

After completing the indicated periodontal therapy, the attending faculty will examine the patient again to evaluate your work. Again, before calling the attending faculty, make sure you are READY as described earlier.

You are expected to conclude your treatment and dismiss the patient at least 15 minutes before the session time ends. This is to give you time to clean your operatory, clean and hand in your instruments and get the required signatures from the attending faculty.

It is YOUR RESPONSIBILITY to get the required signatures by the attending faculty. It is preferable that the various forms are signed at the end of your session. If not possible, the forms should be presented for signing within 3 working days. The faculty has the right to abstain from signing any forms after this time.

3. PERIODONTAL EXAMINATION AND RECORDING PERIODONTAL DATA:

A periodontal examination is largely very similar to the typical clinical dental examination you perform except that greater emphasis is placed on periodontal parameters and indices. This section will discuss specific aspects of periodontal examination.

3.1. Periodontal examination: Emphasis is placed on recording significant dental and periodontal findings including dental caries, gingival color change, gingival swelling, detached papillae, areas of recession, heavy plaque and/or calculus accumulation, restorative overhangs, radiographic bone loss, ...etc. When establishing the diagnosis, it is very important to adhere to the diagnostic categories described in the AAP classification of periodontal diseases of 1999.

3.2. Plaque Index (Silness & Loe): Evaluating the plaque index should be done before the gingival index to avoid disturbing the plaque during periodontal probing. The plaque index will be determined on 6 teeth that are considered representative of the rest of the mouth. Those teeth are: maxillary right first molar, maxillary right lateral incisor, maxillary left first premolar, mandibular left first molar, mandibular left lateral incisor, mandibular right first premolar. If any of these teeth is missing, it is substituted with an adjacent tooth of the same type e.g. First molar is replaced with the second molar, the lateral incisor is replaced with the central incisor and so

on. If the alternative tooth is missing too, no score is recorded for that part. Four (4) surfaces: buccal, lingual, mesial and distal surfaces of each of these teeth are examined and assigned a score. The scoring criteria for the plaque index are:

Score 0 = no plaque

Score 1 = thin layer of plaque not visible to the naked eye but collectable with a periodontal probe

Score 2 = moderate accumulation of plaque which is visible to the naked eye

Score 3 = abundance of plaque

The diagram used to record the scores is shown. Each tooth is represented with a square containing four (4) triangular compartments representing the 4 surfaces to be examined. The triangles facing the tooth number represent the buccal surfaces while the opposing triangles represent the palatal or lingual surfaces. The heavy vertical lines between teeth #2 and #4 represent the midline, hence, the triangle closer to the midline represents the mesial surface of the tooth and the opposing triangle represents the distal. After the scores for all the surfaces are recorded, they are summed and divided by the total number of surfaces examined to calculate the mean plaque index. The plaque index should be calculated, at least, on the first and last visit of the active therapy phase and again when the patient comes back for reevaluation

3.3. Gingival index (Loe & Silness): The Gingival Index is scored on the same teeth and same surfaces as the plaque index. The criteria for the gingival index are:

Score 0 = no inflammation; no change of colour or texture

Score 1 = mild inflammation; slight change in colour or texture, **NO bleeding on probing**.

Score 2 = moderate inflammation; glazing, redness, swelling, **bleeding on probing**.

Score 3 = severe inflammation; marked redness, ulceration, tendency to spontaneous bleeding.

The diagram used to record the gingival index scores is identical to the plaque index diagram. The mean gingival index is calculated the same way the mean plaque index is calculated.

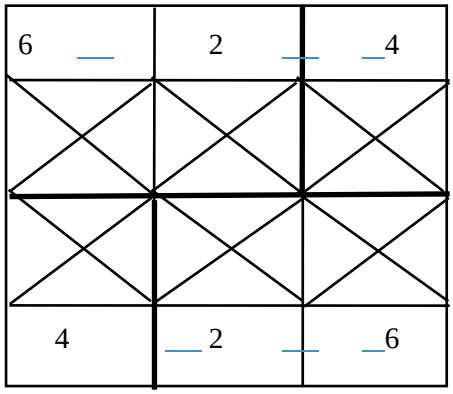
Examination of the teeth to determine the plaque index or the gingival index requires good lighting, drying of the teeth, a mirror and a probe.

3.4. Periodontal Screening and Recording Index (PSR):The American Dental Association (ADA), with the endorsement of the American Academy of Peridontology (AAP), introduced the Periodontal Screening and Recording Index™(PSR) as a system recommended for the early detection of patients with periodontal disease and to determine the need for partial or complete comprehensive periodontal examination. Apart from one major difference (the asterisk Code (*)), the PSR Index is virtually identical to the Community Periodontal Index of Treatment Needs (CPITN) which is endorsed by the World Health Organisation (WHO). The asterisk is used to indicate the presence of furcation involvement, tooth mobility, mucogingival problems and gingival recession exceeding 3.5mm.We will be using a modification of the PSR index to determine which patients or sextants require comprehensive periodontal examination and charting. The PSR index divides the mouth into 6 segments (sextants). Each tooth is examined at six sites and the greatest probe depth in each sextant of the mouth is determined and recorded. Codes range from 0-4:

Code 0 = the greatest probing depth in the sextant is less than 3mm (as opposed to 3.5 in the original PSR) with NO calculus, NO defective restorative margins and NO bleeding on probing detected.

Code 1 = same as code 0 + bleeding on probing

Code 2 = same as code 1 + supra- or sub-gingival calculus and/or defective restorative margins present.



Code 3 = the greatest probing depth in the sextant is greater than 3 mm but less than 5mm (as opposed 3.5mm and 5.5mm in the original PSR).

Code 4 = the greatest probing depth in the sextant is greater than 5mm (as opposed to 5.5mm in the original PSR).

Sextants with fewer than two teeth are scored with an X and omitted from the evaluation. Each

code number can have an asterisk (*) placed depending on clinical abnormalities including but not limited to furcation invasion, mobility, mucogingival problems, or *recession of 4mm or greater*.

Sextants scoring 2 or less do not require comprehensive periodontal charting. If the patient has one or two sextants scoring 3 and/or 4, then those sextants should receive comprehensive periodontal examination and charting. If the patient has three sextants scoring 3 and/or 4, then the patient needs full comprehensive periodontal examination and charting.

PLEASE NOTE that the PSR does not establish a diagnosis. Also, the PSR is designed to be performed on adult patients. In patients younger than 20 years of age, only the incisors and first molars are probed to rule out the presence of aggressive periodontitis.

1.7.5. Periodontal charting:

A completed periodontal chart provides a concise record of the current dental status and the existing tooth support. The periodontal chart should record the following:

- Missing, extruded, tilted, and rotated teeth.
- Level of the gingival margin.
- Level of the mucogingival junction.
- Probing depths.
- Furcation invasion.
- Mobility.
- Defective restorations, overhangs and caries.

An example of a properly completed periodontal chart is found later in this manual.

7.6. Charting furcation invasion:

As the attachment level is displaced apically in periodontitis, the furcation areas of multi-rooted teeth will eventually be exposed. The complex anatomy of the resultant defects has very important implications for prognosis and treatment planning. The furcation areas are best examined with a graded Nabers probe. The

buccal and lingual furcations are examined from their respective aspects. The mesial furcation on the maxillary molars is examined from the palatal aspect, due to the bucco-lingually wide mesiobuccal root which shifts the entrance to the furcation towards the palatal aspect. The distal furcation can be examined from either the buccal or palatal aspects. A common system for evaluating the severity of furcation defects is as follows (Hamp et al. 1975):

Periodontal Instruments Manual (2015/2016)

1. Introduction

The goal of periodontal therapy is to eliminate disease and restore the periodontium to a state of health, which includes comfort, function, and esthetics that can be maintained adequately by both the patient and dental professional.

Non-surgical therapy aims to control the bacterial challenge characteristic of gingivitis and periodontitis, while addressing local risk factors and minimizing the impact of systemic factors.

Specific periodontal instruments are used for non-surgical debridement. These instruments are designed for specific purposes such as removing calculus, planing root surfaces, curetting the gingiva, and removing diseased tissue.

This manual presents an overview of the most important categories of instruments used for non-surgical therapy. **It is not, however, a substitute for the more detailed textbook and can't be used as the only reference for exam and evaluation purposes.**

2. Classification of Periodontal Instruments

Periodontal instruments are designed for specific purposes, such as removing calculus, planing root surfaces, cutting the gingiva, and removing diseased tissue.

Periodontal instruments are classified according to the purposes they serve, as follows:

1. Periodontal probes are used to locate, measure, and mark pockets, as well as determine their course on individual tooth surfaces.
2. Explorers are used to locate calculus deposits and caries.
3. Scaling, root-planing, and curettage instruments are used for removal of plaque and calcified deposits from the crown of a tooth, removal of altered cementum from the

subgingival root surface, and debridement of the soft tissue lining the pocket. They are classified as follows:

a. Sickle scalers are heavy instruments used to remove supragingival calculus.

b. Curettes are fine instruments used for subgingival scaling, root planing, and removal of the soft tissue lining the pocket.

c. Hoe, chisel, and file scalers are used to remove tenacious subgingival calculus and altered cementum. Their use is very limited compared with other instruments. (They are not discussed in this manual).

d. Ultrasonic and sonic instruments are used for scaling and cleansing tooth surfaces and curetting the soft tissue wall of the periodontal pocket.

4. Periodontal endoscope is used to visualize deeply into pockets and furcations, allowing the detection of deposits. (It is not discussed in this manual).

5. Cleansing and polishing instruments, such as rubber cups, brushes, and dental tape, are used to clean and polish tooth surfaces. Also available are air-powder abrasive systems for tooth polishing.

3. Periodontal Probes

The typical probe is tapered, rodlike instrument calibrated in millimeters, with a blunt, rounded tip (Figure 1). Probes should be also thin, with an angled shank to allow easy insertion into the pocket.

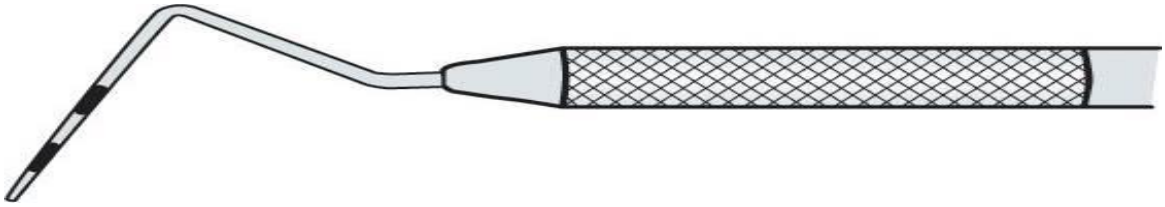


Figure 1: Periodontal probe.

There are several other designs with various millimeter calibrations:

1. The WHO probe: it has a small round ball of 0.5 mm at the tip, and millimeter markings at 3.5, 8.5, and 11.5 mm and color coded band from 3.5 to 5.5 mm.

2. Marquis color-coded probe: the calibrations are in 3 mm sections.
3. University of North Carolina – 15 Probe (UNC-15): it is a 15 mm-long probe with millimeter markings at each millimeter and color coding at 5, 10, and 15 mm.
4. Williams probe: it has markings at 1, 2, 3, 5, 7, 8, 9, and 10 mm.
5. University of Michigan "O" Probe with Williams markings.
6. Michigan "O" probe: with markings at 3, 6, and 8 mm.

Furcation areas can be best evaluated with the curved, blunt Nabers probe (Figure 2).

Figure 2: Nabers probe for furcation areas.

When measuring a pocket, the probe is inserted with a firm, gentle pressure, to the bottom of the pocket. The shank should be aligned with the long axis of the tooth surface to be probed.

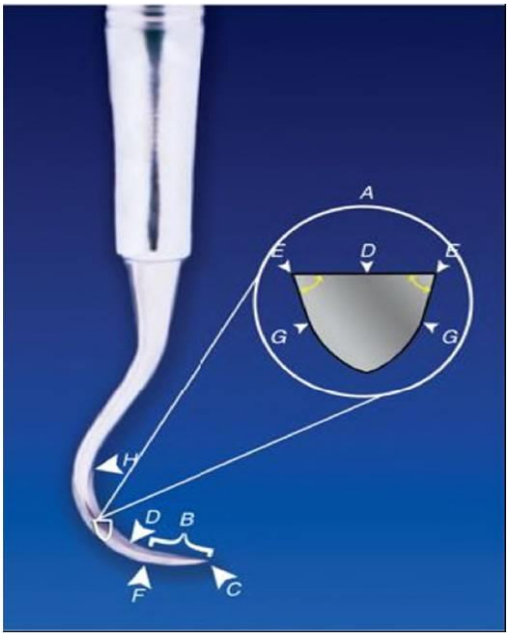
4. Explorers

Typically, an explorer has a thin, flexible, wire-like working end that is circular in cross section and tapers to a sharp point. Explorers are used to locate subgingival deposits and carious areas and to check the smoothness of the root surfaces after root planing. They are designed with different shapes and angles, with various uses.

5. Sickle Scalers

Sickle scalers have a flat surface and 2 cutting edges that converge in a sharply pointed tip or toe. In cross-section, the blade has a triangular shape (Figure 3). They are used primarily to remove supragingival calculus. Because of their design that can damage the surrounding gingival tissues, sickle scalers are not used for subgingival instrumentation. They are used in a pull stroke.

Figure 3: Design of the sickle scaler. A, Triangular cross section. B, Tip, last third of working end. C, Toe, pointed. D, Face. E, Cutting edge. F, Back. G, Lateral surface. H, Heel. Internal angle, 70 to 80 degrees.



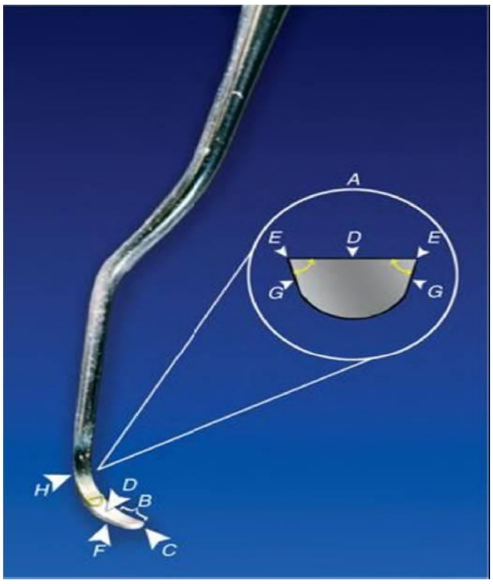
They are available in different blade designs. Moreover, each blade design can exist in different sizes. Additionally, they have either straight or angled shanks. Sickle scalers with straight shanks are designed for use on anterior teeth and premolars. Sickle scalers with contra-angled shanks adapt to posterior teeth.

6. Curettes

The curette is the instrument of choice for removing deep subgingival calculus, root planing to remove altered cementum, and removing the soft tissue lining the periodontal pocket.

Each working end has a cutting edge on one or both sides of the blade, depending on the type of the curette (to be discussed later). Curettes are finer than sickle scalers and don't have any sharp points or corners other than the cutting edges of the blade. Therefore, they can be adapted and provide good access to deep pockets, with minimal soft tissue trauma. In cross section the blade appears semicircular with a convex base (Figure 4). The lateral border of the convex base forms a cutting edge with the face of the semicircular blade.

Figure 4: Design of the curette. A, Semicircular cross section. B, Tip, last third of working end. C, Toe, rounded. D, Face. E, Cutting edge. F, Back. G, Lateral surface. H, Heel.



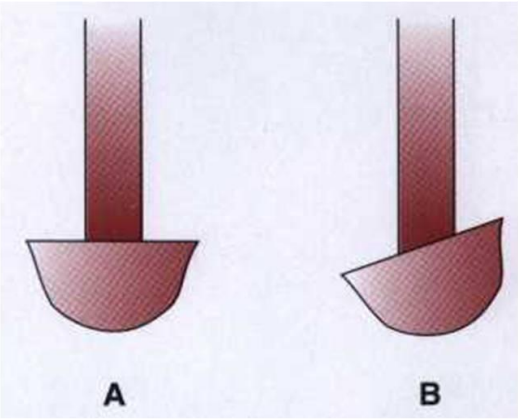
There are two basic types of curettes: universal and area specific.

Universal curettes:

Universal curettes have cutting edges that may be inserted in most areas of the dentition by altering and adapting the finger rest, fulcrum, and hand position of the operator.

The blade size and the angle and length of the shank may vary, but the face of the blade of every universal curette is at 90 degree angle to the lower shank when seen in cross section from the tip (Figure 5.A).

Figure 5: Principal types of curettes as seen from the tip of the instrument. A, Universal curette. B, Gracey curette. Note the offset blade of angulation of the Gracey curette.



Area-specific curettes

There different types, but the Gracey curettes are representative of are-specific curettes.

They are a set of several instruments designed and angled to adapt to specific anatomic areas of the dentition. These curettes and their modifications provide good adaptation to complex root anatomy.

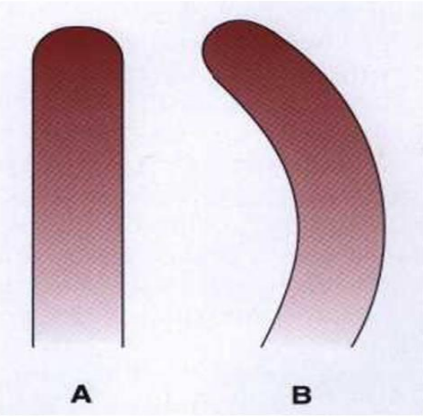
Gracey curettes exist in sets of separate or paired instruments. The curettes are paired in the following manner:

1-2 and 3-4:	Anterior teeth
5-6:	Anterior teeth and Premolars
7-8 and 9-10:	Posterior teeth; facial and lingual
11-12:	Posterior teeth; mesial
13-14:	Posterior teeth; distal

The Gracey curettes also differ from universal curettes in that the blade is not at a 90-degree angle to the lower shank. The term offset blade is used to describe Gracey curettes, because they are angled approximately 60-70 degrees from the lower shank (Figure 5.B). This angulation allows the blade to be inserted in the precise position necessary for subgingival scaling and root planing, provided that the lower shank is parallel with the long axis of the tooth surface being scaled.

Area-specific curettes also have a curved blade. Whereas the blade of the universal curette is curved in one direction (Figure 6.A), the Gracey blade is curved from head to toe (tip) and also along the side of the cutting edge (Figure 6.B). Thus, only a pull stroke can be used.

Figure 6: A, Universal curette as seen from the blade. Note that the blade is straight.
B, Gracey curette as seen from the blade. The blade is curved; only the convex cutting edge is used.



	Gracey Curette	Universal Curette
Area of use	Set of many curettes designed for specific areas and surfaces	One curette designed for all areas and surfaces
Cutting edge	One cutting edge	Two cutting edges
Curvature	Curved in 2 planes; blade curves up and to the side	Curved in one plane; blade curves up, not to the side
Blade angle	Offset blade; face of blade beveled at 60-70 degrees to shank	Blade not offset; face of blade beveled at 90 degrees to shank

7. Sonic and Ultrasonic Instruments

Powered instruments used for periodontal debridement can be classified into 2 groups based on their operating frequencies:

-Sonic scalers, and

-Ultrasonic scalers.

Sonic scalers

Sonic scalers operate at a relatively low frequency of 2000 to 6500 cycles per second. They use a high or low speed air source from the dental unit. Water is delivered via the same tubing used to deliver water to a dental hand-piece.

Tips are large in diameter and universal in design. The tip travels in an elliptical or orbital stroke pattern, allowing the instrument to be adapted to all tooth surfaces.

Ultrasonic scalers

They are categorized into magnetostrictive and piezoelectric, on the basis of the mechanism used to convert the electrical current used for the energy to activate the tips.

Magnetostrictive ultrasonic devices work in a frequency range of 18 000 to 50 000 cycles per second. Metal stacks that change dimension when electrical energy is applied power magnetostrictive technology. Vibrations travel from the metal stack to a connecting body that causes the vibration of the working tip. Tips move in an elliptical or orbital stroke pattern. This allows the tip 4 active working surfaces.

Piezoelectric ultrasonic units work in a frequency range of 18 000 to 50 000 cycles per second. They have ceramic discs that are located in the handpiece power piezoelectric technology. They change in dimension ad electrical energy is applied to the tip. Piezoelectric tips move in a linear pattern, giving the tip 2 active surfaces.

Advantages and disadvantages of mechanized instruments as compared with manual instruments

Advantages	Disadvantages
Increased efficiency	More precautions & limitations
Multiple surfaces of tip are capable of removing deposits	Client discomfort (due to water spraying)
No need to sharpen	Aerosol production
Handpiece size is large	Temporary hearing shifts
Reduced lateral pressure	Noise
Less tissue distention	Less tactile sensation
Water (lavage, irrigation, acoustic microstreaming)	Reduced visibility

8. References

1. Pattison AM, Pattison GL. Scaling and root planing. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA. *Carranza's Clinical Periodontology*. 11 Ed, Elsevier Saunders.
2. Jahn CA, Jolkovsky D. Sonic and ultrasonic instrumentation and irrigation. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA. *Carranza's Clinical Periodontology*. 11 Ed, Elsevier Saunders.
3. Plemons JM, Eden BS. Nonsurgical therapy. In: Rose LF, Mealey BL, Genco RJ, Cohen W. *Periodontics: Medicine, Surgery, and Implants.* Elsevier Mosby.

Positioning for the anterior sextant

Anterior surface toward

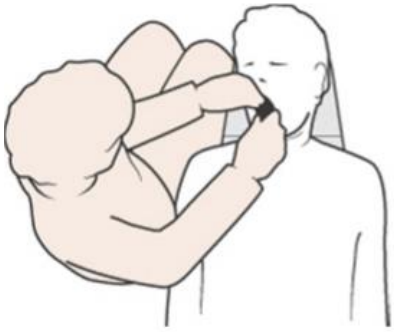
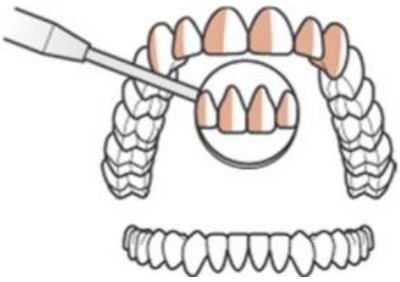


Figure 2-33. The 8 o'clock position.

Turn slightly toward the clinician chin-down position

Figure 2-34. Mandibular anterior surfaces toward, right-handed clinician.



Turn slightly toward the clinician chin-up position

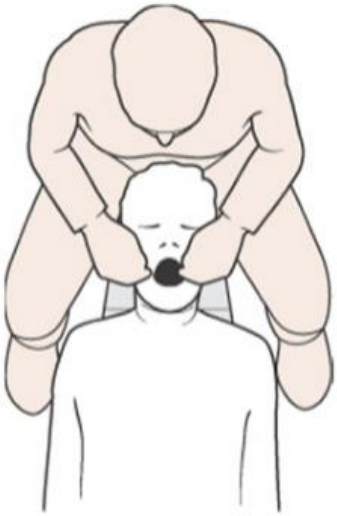
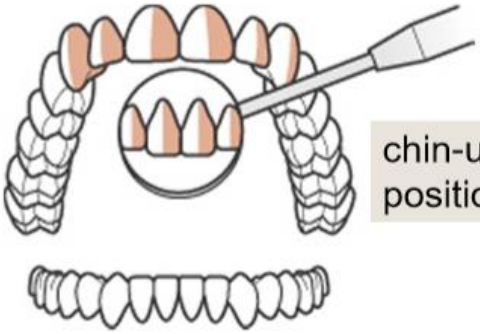


Figure 2-37. The 12 o'clock position.

Figure 2-38. Mandibular anterior surfaces away, right-handed clinician.

chin-down position

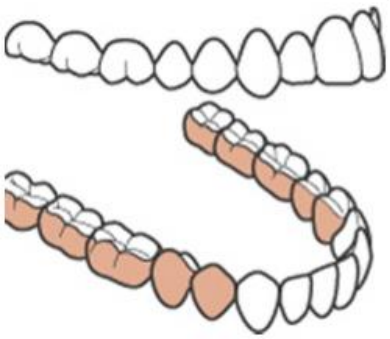


chin-up position

Positioning for the posterior sextant

Posterior aspects facing toward

Figure 2-25. The 9 o'clock position (option 1).



gure 2-42. Mandibular posterior aspects facing toward, right-handed nician.

Turned slightly away from the clinician chin-down position

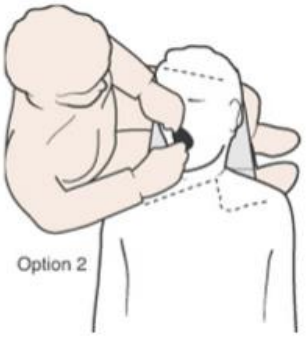
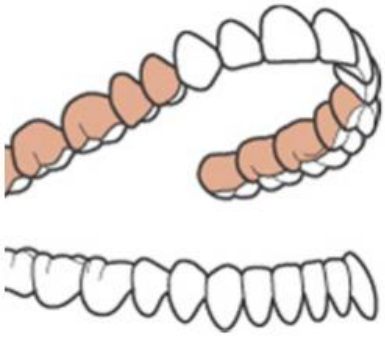


Figure 2-26. The 9 o'clock position (option 2).



2-44. Maxillary posterior aspects facing toward, right-handed clinician.

Turned slightly away from the clinician chin-up position

Positioning for the posterior sextant

Posterior aspects facing away

Figure 2-25. The 9 o

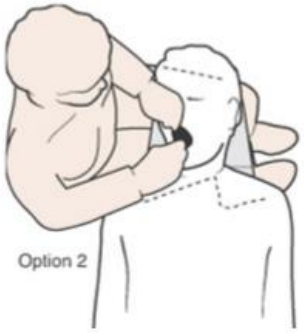


Figure 2-26. The 9 o'clock position (option 2).

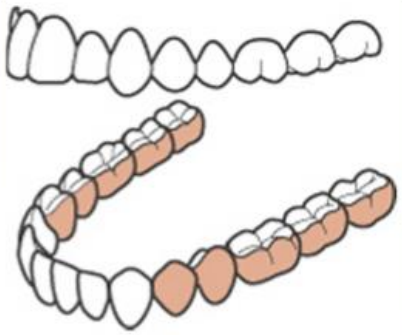


Figure 2-46. Mandibular posterior aspects facing away, right-handed clinician.

Turned slightly away from the clinician chin-down position

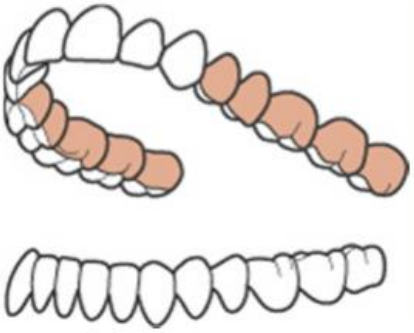


Figure 2-48. Maxillary posterior aspects facing away, right-handed clinician.

Turned slightly away from the clinician chin-up position

30/10/08

The University of Jordan

Faculty of Dentistry

Department of Oral Surgery, Oral Medicine and Periodontology

2015/2016

Course Title: Periodontology Practical 1

Course Code: 1301434

Semester: 2nd/ 4th year

Prerequisite: None

Module Coordinator(s): Dr. Omar Alkaradsheh

Instructor (s):

Name	E -Mail
Dr Ahmad Hamdan	ahmoodi@hotmail.com
Dr Murad Shaqman	murad90@yahoo.com
Dr Nicola Barghout	nicolabarghout@hotmail.com
Dr Omar Alkaradsheh	O_karadsheh@yahoo.com

Course Objectives:

- General objectives:
  1. Develop the necessary clinical skills to evaluate, diagnose and treat the most commonly observed periodontal diseases or conditions, and achieve periodontal health as a very important part of the comprehensive dental care of the patient.
  2. Develop knowledge of the concepts for prevention of oral and periodontal diseases and developing the skills to communicate this information to the patients and the community, leading to the promotion of oral health.

- Specific objectives: The general objectives are achieved by training student to be able to:
  3. Perform periodontal examinations.
  4. Diagnose the various forms of gingivitis and periodontitis.
  5. Identify the radiographic changes associated with periodontal diseases.
  6. Identify the etiological factors of periodontal disease and determine the prognosis of periodontal disease.

7. Formulate a treatment plan considering the unique circumstances of every case such as the medical history, etiological factors, and restorative needs with due emphasis on total patient care.
8. Diagnose and manage acute periodontal conditions.
9. Develop the skills for using hand and power-driven periodontal instrumentation.
10. Prevent and treat gingivitis.
11. Evaluate the results of periodontal therapy.
12. Develop a maintenance plan for periodontal patients.
13. Communicate to the patient, effectively and clearly, the nature of his periodontal condition and provide proper instructions in oral hygiene.
14. Monitor and positively reinforce the patient's plaque control efforts.
15. Manage the patient's anxiety and ensure proper pain control during the provision of periodontal treatment.

Learning Outcomes:

Successful completion of this course should lead to the following learning outcomes:

- Students should gain clinical skills for comprehensive periodontal assessment.
- Students should identify and properly use the various periodontal instruments and equipment used for debridement and polishing of teeth, including proper operator positioning and instrument control.
- Students should have carried out successfully the treatment of gingivitis.

A. Knowledge and understanding, student should:

· Be able to identify the local and systemic etiological factors of periodontal disease.

· Be able to diagnose and establish a successful treatment plan for his patient.

· Develop the manual skills for the use of periodontal instruments.

B. Intellectual skills, with ability to:

· Formulate a treatment plan that considers the various unique conditions of every patient including the patient needs, systemic health, patient motivation, limitations and available therapeutic modalities.

C. Subject specific skills, with ability to:

· Identify the various tooth accretions.

· Identify gingival and periodontal diseases and master the skills necessary for their treatment.

· Use the various periodontal instruments and equipments proficiently and safely.

D. **Transferable skills, with ability to:**

- Employ the knowledge of periodontal diseases and skills for periodontal therapy, as a general dental practitioner, in the comprehensive care of the patient.
- Communicate effectively with patients regarding their oral health conditions, their treatment needs and build rapport and trust with the patient.

Teaching Method:

Duration: 16 weeks in the 2nd semester, 16 hours in total.

Practical sessions: 16 hours, one 2-hour session every two weeks.

Course Outline:

7.1. First session: Introduction to clinical periodontology.

7.1.1. Periodontology clinic rules and guidelines: A detailed description of these guidelines is available in the clinic manual which is part of the course logbook. These rules and guidelines will be only briefly discussed and the students are expected to thoroughly review the clinic manual on their own and adhere to these guidelines.

7.1.2. Periodontal examination: the various aspects of periodontal examination will be discussed including: chief complaint, history of the chief complaint, medical history, dental history, Extra- and intra-oral examination, gingival and periodontal examination, and periodontal charting. The emphasis will be on gingival and periodontal examination, and periodontal charting. Other aspects of the history and examination will be reviewed briefly focusing on its relevance to periodontology.

7.1.3. Periodontal examination demonstration: A complete and thorough periodontal examination will be demonstrated by the instructor on a volunteer patients including demonstration of periodontal charting.

7.1.4. "Patient" examination: If time permits, the students will split into groups of two and alternate in performing periodontal examination on their group partner. This should include complete periodontal examination and charting of any maxillary or mandibular quadrant.

2. Second session: Instrumentation.

2.1. Quiz: A 15 minute quiz will be administered at the beginning of the session consisting of either MCQ's, true or false questions, fill in the blank, short essay or viva voca questions. The quiz will cover the following topics:

2.1.1. Clinic guidelines and procedures (clinic manual).

2.1.2. The impact of systemic health on the etiology and management of periodontal disease.

2.1.3. Periodontal examination and charting.

2.2. Periodontal Instrumentation: The various types of periodontal instruments will be shown and discussed according to the provided manual. The features, application and care of these instruments will be emphasized. This includes principles of instrument sharpening. Students should read the instrumentation manual before the session to allow for active discussion and to concentrate on important ideas rather than repeating the content of the manual.

2.3. Periodontal instrumentation demonstration: the supervisor will to conduct a demonstration on using periodontal instruments on a patient. The demonstration consists of using power-driven and hand instruments to perform a complete dental prophylaxis (scaling and polishing).

2.4. Instrumentation exercise on models: the students will take time in familiarizing themselves with the various instruments and practice using them on the models.

2.5. Oral hygiene: different methods of oral hygiene will be discussed, including brushing, flossing, interdental brushes, and the use of mouthwashes. Students will exercise providing oral hygiene instructions to "patients" (student volunteer) using the various tools available.

3.Third session: Patient examination, Diagnosis, treatment planning, prognosis and oral hygiene instructions

3.1. Quiz: A 10 minute quiz will be administered at the beginning of the session consisting of either MCQ's, true or false questions, fill in the blank, short essay, or viva voca questions. The quiz will cover the following topic:

3.1.1. Periodontal Instruments (note: the reference for this quiz will be the instrumentation manual which will be provided to the students).

3.2.Patient examination: Students are asked to bring patients at the beginning of this session. The students should carry out a complete periodontal examination and charting including recording plaque and gingival indices, a periodontal screening record, in addition to probing depths,

recession, BoP, mobility and furcation invasion to either a right or left maxillary and mandibular quadrants.

3.3. Diagnosis & treatment plan: After reviewing the examination findings, students should be able to reach a comprehensive diagnosis and formulate a treatment plan accordingly. The students should present their examination findings, point out contributing local factors, and discuss the diagnosis and treatment plan with their clinical instructor before commencing treatment.

3.4. Oral hygiene instructions: tooth brushing techniques and the use of interdental cleaning aids are demonstrated at the end of the session in line with each patient's need.

4.Fourth session: Patient examination & treatment and discussion of clinical case assignment :

4.1.Patient treatment: the student will continue the examination and treatment plan formulation (if he/she has not done so in the previous visit). Also the student should re-assess the oral hygiene by re-recording the plaque index in this visit. The student will commence scaling using mainly manual instruments, and only aided by powered instruments for finishing, stain removal and polishing.

4.2. Case discussion #1: A clinical case scenario including photos, periodontal charting and radiographs will be hung on the announcement board at the end of the previous session. The students are required to use the data provided to establish a diagnosis, identify etiological factors, formulate a treatment plan, and determine the prognosis of the case and answer specific question pertinent to each case. A group discussion of the scenarios would take place in the last 15 minutes of the clinic; a written assignment including case analysis and answers to the questions provided in the assignment should also be handed to the supervisor at the beginning of the clinical session.

5.Fifth session: Patient Examination & treatment, and discussion of clinical case assignment:

5.1. Continue patient treatment from previous session.

5.2. New patient examination and treatment.

5.3. Case discussion #2.

6. Sixth session:

6.1.Continue patient treatment from session 5.

6.2.Re-evaluation treatment outcome previously treated patients.

6.3.Case discussion #3.

7. Seventh session (if time allows): continue patient treatment from session 6

Course Requirements:

1) The student is required to perform a complete periodontal examination and periodontal treatment consisting of scaling and polishing and oral hygiene instructions on at least one patient. The patient/s should also be seen in two to four weeks to re-evaluate the treatment outcome. It is advisable that student would select a gingivitis case with moderate to heavy deposits and that the patient does not exhibit periodontal pocket depth greater than 4mm.

2) The student is expected to be competent in giving oral hygiene instructions and perform an accurate periodontal examination. therefore, the student has to undertake a competency test in one of the following:
   I. Oral hygiene instructions
   II. Full periodontal charting of one quadrant.

Evaluation system:

1.The grade for this course is divided into:

1.1. Continuous course evaluation (60%)

1.2. Final exam (40%)

2. Continuous course evaluation: the grade for this component will be based on:

2.1. Quizzes (20%)

2.2. Case assignments (sessions 4, 5, 6) (30%)

2.3. Patient examination and treatment (sessions 3, 4, 5, 6 and 7) (50%)

3. Final exam: the final exam will be a written exam. The student will be presented with 3-4 clinical cases or scenarios including clinical photos, radiographs and periodontal charting. The questions will address clinical aspects such as, but not limited to, establishing diagnoses, identifying etiological factors, formulating a treatment plan and determining prognosis.

Attendance:

- Students are allowed 15% absence according to the laws of the university. This stands for 1 clinical session for 4th year students in the periodontology practical course.
- Students who are absent without excuse on the day of a graded exercise or quizzes will receive a zero grade for that exercise or quiz.

References & Reading Materials

1. Clinical Periodontology (Hardcover). 10th edition, by Michael G. Newman, Henry Takei, Fermin A. Carranza.
2. Periodontology Clinical Student Manual 2012-2013

Feedback

Concerns or complaints should be expressed in the first instance to the course instructor. If no resolution is forthcoming then the issue should be brought to the attention of the Department Chair and if still unresolved to the Dean. Questions about the material covered in the lectures, notes on the content of the course, its teaching and assessment methods can be also sent by e-mail.

Evaluation system of clinical cases

- The evaluation of the clinical work will be based on the quality of the work
- For each treated case, the student will be evaluated for these aspects: history and examination, scaling and polishing (per arch)
- Evaluation categories are as follows:
    - Very good: A
    - Satisfactory: B
    - Marginal: C
    - Poor: D
- Evaluation of History & Examination is as follows:
    - **A:** Student identifies the chief complaint, any relevant medical history, dental history, all findings related to the periodontal diseases, properly identifies the diagnosis and the etiological factors.
    - **B:** Student doesn't identify certain information related to the chief complaint, relevant medical history, dental history, certain findings related to the periodontal diseases, doesn't formulate the diagnosis correctly, or some of the related etiological factors.
    - **C:** Student poorly collect information about the chief complaint, medical history, dental history, poorly identifies clinical findings related to the periodontal diseases, and can't

formulate the diagnosis and doesn't identify the basic etiological factors.

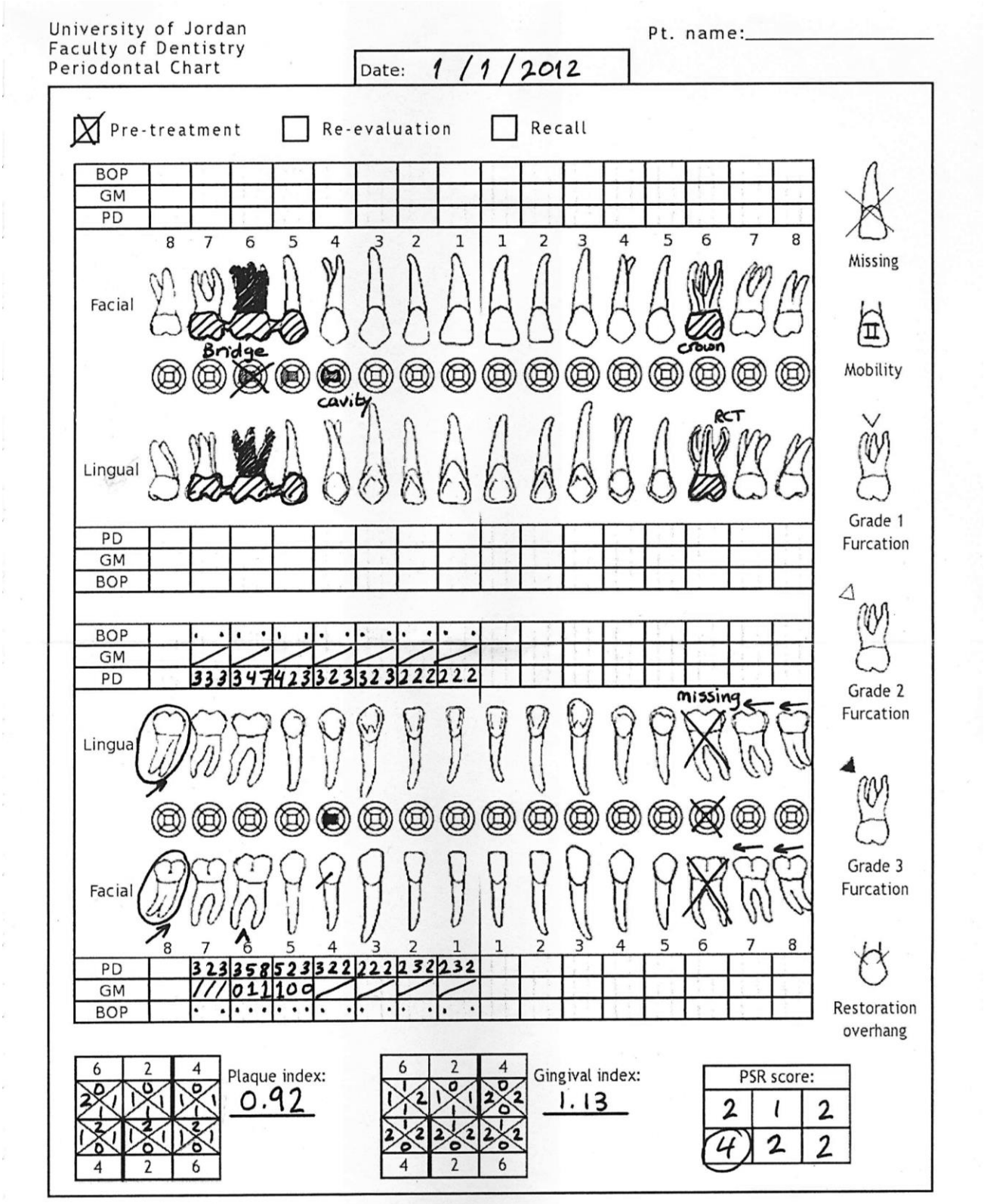
- **D:** Student is unable to identify and collect most basic information from the patient, and is unable to identify the most basic findings related to periodontal diseases, and doesn't identify the etiological factors.

- Evaluation of Scaling + Polishing is as follows:
  - **A:** All surfaces of teeth are calculus free, including interproximal surfaces and subgingivally. No visible trauma to the tissues. Minimal stains are left. No plaque (soft debris and deposits) is detected.
  - **B:** Remaining calculus subgingivally or in the interproximal surfaces. Moderate trauma to the tissues. Moderate stains are left. Plaque is detected.
  - **C:** Significant amounts of calculus are left. Significant trauma to the tissues. Remaining plaque is abundant.
  - **D:** Poor result of the treatment. Calculus remaining is abundant. Stains aren't removed. Important trauma to the tissues. Student is unable to use the instruments correctly.
- Evaluation of Root Planing is as follows:
  - **A:** No residual calculus or plaque is detected in the pockets. No or minimal trauma to the tissues. Radicular surface is smooth.
  - **B:** Residual calculus or plaque is present. Moderate trauma to the tissues. Radicular surface is rough.
  - **C:** Significant amounts of calculus and plaque are detected. Significant trauma to the tissues. Radicular surface not instrumented properly.
  - **D:** Poor instrumentation. Important trauma to the tissues. Student is unable to use the instruments correctly, or doesn't use the proper instruments.

Any breach of the Cross-Infection Control (CIC) will be noted as a violation on the logbook for every session, with the date of the session. At the end of the course, all such violations will be summed up, and integrated into the final total mark for the continuous evaluation. Same thing applies to Punctuality, and Professionalism.

Periodontal chart form

Blank forms are available in the Periodontology clinics. Next is an example of a filled out form.



Clinical Cases Log

Fill out a form for each patient you examine or treat. Your supervisor is supposed to grade your work and sign.

Clinical Case # ( )

Personal Information

Patient name: Date:

Patient file #:

Diagnosis

Examination reviewed:		
Student Name:		Group #
Faculty (Name and signature):		
Date:	Mark:	Points:

Treatment provided:				
Visit #	Treatment provided:	Date	Mark	Faculty signature
1st visit				
2nd visit				
3rd visit				
4th visit				

Clinical Case # ( )

Personal Information

Patient name: Date:

Patient file #:

Diagnosis

Examination reviewed:		
Student Name:		Group #
Faculty (Name and signature):		
Date:	Mark:	Points:

Treatment provided:				
Visit #	Treatment provided:	Date	Mark	Faculty signature
1st visit				
2nd visit				
3rd visit				
4th visit				

Clinical Case # ( )

Personal Information

Patient name: Date:

Patient file #:

Diagnosis

Examination reviewed:		
Student Name:		Group #
Faculty (Name and signature):		
Date:	Mark:	Points:

Treatment provided:				
Visit #	Treatment provided:	Date	Mark	Faculty signature
1st visit				
2nd visit				
3rd visit				
4th visit				

Clinical Case # ( )

Personal Information

Patient name: Date:

Patient file #:

Diagnosis

Examination reviewed:		
Student Name:		Group #
Faculty (Name and signature):		
Date:	Mark:	Points:

Treatment provided:				
Visit #	Treatment provided:	Date	Mark	Faculty signature
1st visit				
2nd visit				
3rd visit				
4th visit				

Clinical Case # ( )

Personal Information

Patient name: Date:

Patient file #:

Diagnosis

Examination reviewed:		
Student Name:		Group #
Faculty (Name and signature):		
Date:	Mark:	Points:

Treatment provided:				
Visit #	Treatment provided:	Date	Mark	Faculty signature
1st visit				
2nd visit				
3rd visit				
4th visit				

Department of Oral & Maxillofacial surgery, Oral Medicine and Periodontology

Competency Examination

Oral Hygiene Instructions

Student Name:	Date:
Patient's Name:	Starting time:
Attempt number:	Finishing time:
Faculty Approval:	

Evaluation Criteria	**Faculty Evaluation**	
Describes dental plaque, explains significance, identifies plaque, records in chart and calculates plaque index.	PASS	FAIL
Identifies areas to emphasize technique improvement.	PASS	FAIL
Selects appropriate oral hygiene aids including interproximal aids.	PASS	FAIL
Recognizes and explains secondary local factors that are present and require special management.	PASS	FAIL
Discusses characteristics of oral hygiene aid/devices, timing of replacement, use of other aids, mouthwashes, etc.	PASS	FAIL
Demonstrates toothbrushing and interproximal oral hygiene techniques.	PASS	FAIL
Discusses frequency of patient's oral hygiene performance including (professional) recall/prophylaxis.	PASS	FAIL
Discuss and justify prescribing a mouthwash	PASS	FAIL

Overall Assessment	Attending Faculty:	**PASS**	**FAIL**

Faculty Comments:

Department of Oral & Maxillofacial surgery, Oral Medicine and Periodontology

Competency Examination

Periodontal examination, diagnosis and treatment planning

Student Name:	Date:
Patient's Name:	Starting time:
Attempt number:	Finishing time:
Faculty Approval:	

Evaluation Criteria	**Faculty Evaluation**	
Full-mouth periodontal probing and recession are accurate and complete	PASS	FAIL
Plaque and gingival index are complete and accurate	PASS	FAIL
Furcation involvement assessed accurately using Naber's probe	PASS	FAIL
Mobility and occlusal assessment.	PASS	FAIL
An accurate Periodontal Diagnosis/ problem list is established and documented.	PASS	FAIL
A Periodontal Prognosis is established for individual teeth and for the dentition as a whole.	PASS	FAIL
A Periodontal Treatment Plan is formulated that addresses all of the periodontal problems.	PASS	FAIL
A Periodontal Maintenance Phase of treatment is proposed.	PASS	FAIL

Overall Assessment	Attending Faculty:	**PASS**	**FAIL**

Faculty Comments:

Clinical Case # ( )

Personal Information

Patient name: Date:

Patient file #:

Diagnosis

on reviewed:		
me:		Group #
Faculty (Name and signature):		
Date:	Mark:	Points:

Treatment provided:				
Visit #	Treatment provided:	Date	Mark	Faculty signature
1st visit				
2nd visit				
3rd visit				
4th visit				