



KINGSAUD UNIVERSITY
College of Dentistry
Department of Periodontics and Community
Dentistry



313 PCS

CLINICAL PERIODONTOLOGY I

COURSE DIRECTOR : Dr. NoufAlshibani

COURSE COORDINATOR : Dr. HendAlharbi

Academic Year
1436/1437 H (2015/2016 G)

Reviewed and Updated by

PCS Department Courses Review and Update Committee

| | |
|------------------------|-------------|
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| ~ Prof. Nadir Babay | Member |
| ~ Dr. Salwa Al Sadhan | Member |
| ~ Dr. AmelDarwish | Member |
| ~ Dr. Reem Al Kattan | Member |
| ~ Dr. Mansour Al Askar | Member |

COURSE TITLE: CLINICAL PERIODONTOLOGY I

COURSE CODE: PCS 313

CREDIT HOURS: 4 hours (1 hour- Lecture & 3 hours -Clinic)

PREREQUISITES: None

INTRODUCTION:

Gingival and periodontal diseases are common pathological conditions that continue to affect the supporting structures of the dentition in different parts of the world. The Clinical Periodontology I course runs over one year. It reviews and expands the student's knowledge of the biology of healthy periodontium; introduces the student to the current classification of periodontal diseases; and provides the fundamental knowledge of the etiology, microbiology, and diagnosis of periodontal diseases. Basic information will be integrated with necessary clinical skills to systematically evaluate and diagnose all currently recognized forms of periodontal diseases, and formulate a comprehensive treatment plan. This includes the ability to recognize the less common forms of gingivitis and periodontitis and those systemic conditions that may influence the initiation, progression, or treatment of periodontal diseases.

COURSE DESCRIPTION:

This course consists of didactic, pre-clinical and clinical components. It covers the following:

1. Periodontium in health.
2. Etiology, pathogenesis, and classification of periodontal diseases.
3. Systematic examination, diagnosis, treatment planning and management of patients with non-advanced periodontal diseases.
4. Principles and techniques of prevention and therapy of periodontal diseases.
5. Re-evaluation of the patient response to the given periodontal treatment.
6. Periodontal instrumentation, including the proper use and handling of the periodontal instruments.

COURSE OBJECTIVES:

At the end of this course the student should be able to:

1. Present a complete patient record, including the history and comprehensive clinical and radiographic examination of the periodontium as well as other oral tissues.
2. Develop the appropriate diagnosis, identify prognosis and formulate a multidisciplinary treatment plan of periodontal diseases.
3. Master the ability to motivate and customize a home-based plaque control regime for each individual patient.
4. Become competent in the prevention, assessment and management of periodontal diseases.
5. Distinguish between healthy and diseased periodontium based on the knowledge of the biology of the periodontal structures and the pathological mechanisms of periodontal diseases.
6. Demonstrate the ability to identify the presence of local irritants and the competency necessary to eliminate them.

7. Use and handle various periodontal instruments effectively.

COURSE REQUIREMENTS:

Students must satisfactorily complete the following minimum requirements:

Finish at least three (3) clinical cases:

- Two case with gingivitis including slight/moderate amount of calculus and/or systemic factors.
- One case with generalized periodontitis including slight/moderate amount of subgingival calculus and/or systemic factors
- One gingivitis or slight periodontitis re-evaluation case **from the students self treated patients**

COURSE PROTOCOL:

- Screening of clinical cases by the **COURSE DIRECTOR** is mandatory.
- Approval of the **COURSE DIRECTOR** to dismiss or transfer patients is mandatory.
- **SIGNING AND APPROVING** of the treatment plan by your supervisor is mandatory before starting the treatment procedures
- Students are expected to perform **satisfactorily** in both Didactic and Clinical components of the course
- The Clinical Evaluation Form will be strictly followed for each clinical procedure, and the instructor must sign each step during the session.
- All report of the assigned patients should be kept with the student.
- The student should maintain discipline with regards to attending the clinic sessions on time.
- The students are expected to maintain a good relationship with his/her patients, colleagues and instructor alike.
- The student must always observe cleanliness and neatness in appearance and wear their proper clinical gowns, ID, head cover and goggles during the clinical session; otherwise they will not be allowed to perform their clinical procedures.
- It is the responsibility of the student to complete the patient's permanent file, indicating clearly the name, university number and signature of the students. A temporary file is not acceptable.
- At the end of each clinical session the student should obtain the signature of the instructor.
- The patient's file, without the signature of the assigned instructor, shall be considered as an incomplete clinical procedure, and will affect your daily grade.
- In a situation where the patient is unable to attend the clinic, the instructor should immediately be notified.
- Students should attend the clinic session despite the absence of their patients.

- Each student must fulfill the minimum treatment requirements of the course (3 patients).
- The quality of treatment for each clinical step provided will be of primary concern in the assignment of the final grade.
- Regularity, punctuality & adherence to college didactic & clinical regulation in treating patients must be strictly observed and will be graded.
- Your instructor will continually monitor your clinical skills, behavior and patient management.
- All patients under the student's care will undergo routine evaluation.
- Scaling and root planing will be evaluated on a quadrant or sextant basis.
- The STUDENT is responsible to assure that his/her clinical work is regularly evaluated.
- The clinical mark will be severely affected if the Student will show:

- ▶▶ Poor management of the case
- ▶▶ Repeated ignorance to given instructions
- ▶▶ Unacceptable behavior with patients and/or clinical instructors.
- Student who fails to finish the clinical work during the allotted clinical time per session will receive a zero mark. Another Zero (0) will cancel the clinical requirement for that case with the student continuing to treat the clinical case.
- All performed clinical procedures should be recorded in the patient's file.
- It is the Student responsibility to prepare the clinic before starting the treatment. Radiographs, treatment plan, saline and sharpened instrument should always be available in the clinic.
- Attendance to the lectures and the clinic is mandatory. Being 10 minutes late to the lecture or 15 minutes late to the clinical session will be considered as absence affecting the student's evaluation.
- King Saud University rules and regulations stipulate that missing 25% of the lecture or the clinical sessions will deprive the student from setting in the final exam.
- It is the students responsibility to coordinate with the Booking Area for patients appointments
- Student who does not fulfill the all the above-mentioned items will have their final grade negatively affected

MEASUREMENT AND EVALUATION:

Final mark will be calculated as follows:

| | |
|--|--------------|
| A. CONTINUOUS YEARLY EVALUATION | (60%) |
| 1. Clinical evaluation | 25% |
| 2. Mid-Year Clinical examination (I) | 10% |
| 3. Mid-Year examination | 15% |
| 4. Punctuality/quizzes | 10% |
| | |
| B. FINAL EXAMINATION | (40%) |
| 1. Written examination | 25% |
| 2. Final Clinical examination (II) | 15% |
| | |
| TOTAL | 100% |

The final written examination includes all course materials presented during the year. Daily clinical evaluation will be in the categories of preparation, professionalism, knowledge and management of the patients.

Note: Failure to meet the professional and ethical responsibilities towards the patients will affect the student's grade

ROUTINE EVALUATION MARKS:

This evaluation measures the quality of the work performed by the student during the management of his/her periodontal patients. Marks will be calculated using the point system depending on the case selection and the procedure:

- Gingivitis case 1 point out of 15

- Slight periodontitis case 1.5 points out of 15
- Moderate periodontitis case 3 points out of 15
- Severe periodontitis case 3 points out of 15
- Re-evaluation after initial therapy of a case 3 points out of 15
- Recall of a finished case treated by student 2 points out of 15
- Periodontal surgery/implant case report 1.5 points out of 15

REQUIREMENT MARKS:

- A clinical treated case will not be considered in the requirement until it has a passing grade of 60%.
- Any grade below 60% will only be counted in the routine evaluation.
- Accordingly each requirement case will be calculated in accordance with their type as the following:

Example: Student treats a slight periodontitis case (examination, diagnosis, treatment plan and initial therapy, scaling and root planing) and the calculated average of the case from student evaluation form is 80% then the point for this case is:

$$(80 \times 1.5) \div 100 = 1.2 \text{ out of 1.5 points}$$

REQUIRED TEXT:

1. **Carranza's Clinical Periodontology**, 12th edition, Michael G. Newman, Henry Takei, Perry R. Klokkevold, and Fermin A. Carranza (editors), Saunders Elsevier, 2011.
2. **Color Atlas of Dental Medicine 1, Periodontology**, 3rd ed. Herbert F. Wolf, Edith M. Rateitschak-Pluss, Klaus H. Rateitschak, Thieme Inc., 2005.

Periodontal examination and evaluation forms:

The forms, lectures and the clinical manual required for this course can be downloaded from the website: <http://faculty.ksu.edu.sa/nalshibani/default.aspx>

Course Director, Course Coordinator and Participating Faculty Contact Information:

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313 PCS

CLINICAL EVALUATION GUIDELINES

| GRADE | CLINICAL PROCEDURES |
|---------------|--|
| | <p>Students will be evaluated for the following:</p> <ul style="list-style-type: none"> • Attitude • Professionalism • Cleanness of the field • Organization • Availability of the charting and dental radiographs • Scaling and root planning |
| 90-100 | <ul style="list-style-type: none"> • No injury to the gingival tissue • No roughness left • Good knowledge • Complete removal of sub- & supra-gingival calculus |
| 80-89 | <ul style="list-style-type: none"> • No injury to the gingival tissue • <u>Localized</u> roughness left • Complete removal of sub- & supra-gingival calculus |
| 70-79 | <ul style="list-style-type: none"> • Some injury to the gingival tissue • Unable to detect localized areas of sub-gingival calculus • <u>Multiple areas</u> with root roughness left |
| 60-69 | <ul style="list-style-type: none"> • Obvious injury to the gingival tissue • <u>Multiple areas</u> with sub- & supra-gingival calculus |
| <60 (Fail) | <ul style="list-style-type: none"> • Remarkable injury to the gingival tissue • <u>Unable to detect huge amount of sub- & supra-gingival calculus</u> • <u>Does not deserve to pass (unsafe)</u> |

CLASSIFICATION OF PERIODONTAL DISEASES (AAP 1999)

| | | | | | | |
|--|--|---|--|--------------------------------------|------------------------------------|----------------------------------|
| GINGIVAL DISEASE | Plaque induced gingival disease | I-A1 | Gingivitis associated with plaque only | | | |
| | | I-A2 | Gingival disease modified by systemic factors e.g. puberty, diabetes | | | |
| | | I-A3 | Gingival disease modified by medication e.g. phenytoin | | | |
| | | I-A4 | Gingival disease modified by malnutrition e.g. vitamin C deficiency | | | |
| | Non-plaque induced gingival disease | I-B1 | Gingival disease of specific bacterial origin e.g. syphilis | | | |
| | | I-B2 | Gingival disease of specific viral origin e.g. herpes infection | | | |
| | | I-B3 | Gingival disease of fungal origin e.g. candidiasis | | | |
| | | I-B4 | Gingival disease of genetic origin e.g. hereditary fibromatosis | | | |
| | | I-B5 | Traumatic lesion of the gingival i.e. chemical, physical, thermal | | | |
| | | I-B6 | Foreign body reaction of the gingival | | | |
| PERIODONTITIS | Chronic Periodontitis | II-A1 | Slight | 1-2mm clinical attachment loss | Generalized >30% of sites involved | Localized <30% of sites involved |
| | | II-A2 | Moderate | 3-4mm clinical attachment loss | | |
| | | II-A3 | Severe | 5mm or more clinical attachment loss | | |
| | Aggressive Periodontitis | II-B | Absence of large amount of plaque and calculus | | Generalized >30% of sites involved | Localized <30% of sites involved |
| | Periodontitis as manifestation of systemic disease | II-C | Such as periodontitis in acquired neutropenia or leukemia | | | |
| NECROTIZING PERIODONTAL DISEASE | III-A | Necrotizing ulcerative gingivitis | | | | |
| | III-B | Necrotizing ulcerative periodontitis | | | | |
| ABSCESSSES OF PERIODONTIUM | IV-A | Gingival abscess | | | | |
| | IV-B | Periodontal abscess | | | | |
| | IV-C | Pericoronal abscess | | | | |
| PERIODONTITIS ASSOCIATED WITH ENDODONTIC LESIONS | V-A | Endo-perio lesion | | | | |
| | V-B | Perio-endo lesion | | | | |
| | V-C | Combined lesion | | | | |
| | VI-A | Localized tooth-related factors that predispose to plaque induced gingival diseases or periodontitis. | | | | |

DEVELOPMENTAL OR ACQUIRED
DEFORMITIES AND CONDITIONS

VI-B

Mucogingival deformities and conditions around teeth

VI-C

Mucogingival deformities and conditions around
edentulous ridges

VI-D

Occlusal trauma

PROGNOSIS CLASSIFICATION

McGuire & Nunn, 1996

| | |
|--------------|---|
| GOOD | Control of the etiologic factors and adequate periodontal support as measured clinically and radiographically to ensure the tooth would be relatively easy to maintain by the patient and clinician assuming proper maintenance |
| FAIR | Approximately 25% attachment loss as measured clinically and radiographically and/or class I furcation involvement. The location and depth of the furcation would allow proper maintenance with good patient compliance. |
| POOR | 50% attachment loss and/or class II furcations. The location and depth of the furcations would allow proper maintenance, but with difficulty. |
| QUESTIONABLE | >50% attachment loss resulting in a poor crown/root ratio. Poor root form, class II furcations not easily accessible to maintenance care, or class III furcations. ≥2+ mobility. Significant root proximity. |
| HOPELESS | Inadequate attachment to maintain the tooth in health, comfort, and function. Extraction is suggested. |

STUDENT'S PROGRESS
313 PCS
FIRST SEMESTER

| Date | Requirement | Complete | In Progress | Needed |
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STUDENT'S PROGRESS
313 PCS
SECOND SEMESTER

| Date | Requirement | Complete | In Progress | Needed |
|------|-------------|----------|-------------|--------|
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**DEPARTMENT OF PERIODONTICS AND COMMUNITY DENTISTRY
DIVISION OF PERIODONTICS**

313 PCS

Clinical Evaluation Form

Patient's Name _____

Patient's File No: _____

Case Diagnosis:

Severity of local factor: slight - moderate – severe

Extent of local factor: localized - generalized

Faculty Signature: _____

| PROCEDURE | GRADE | FACULTY SIGNATURE |
|--|-------|-------------------|
| <ul style="list-style-type: none"> • Part I – Initial Examination 1. Chief complaint, oral history, medical history 2. Extra- and intra- oral examination | | |
| | | |
| <ul style="list-style-type: none"> • Part II- Clinical Examination 1. Periodontal charting 2. Radiographic interpretation 3. Oral and periodontal diagnosis | | |
| | | |
| | | |
| <ul style="list-style-type: none"> • Part III –Treatment Plan 1. Motivation, OHI, periodontal treatment plan 2. Other dental treatment specialties needed 3. Initial surgical treatment plan 4. Overall and individual tooth prognosis | | |
| | | |
| | | |
| | | |
| <ul style="list-style-type: none"> • Part IV – Therapy 1. Motivation and oral hygiene performance 2. Gross scaling and polishing 3. Scaling and root planning <ul style="list-style-type: none"> a. Quadrant I b. Quadrant II c. Quadrant III d. Quadrant IV 4. Availability of the charting and x-ray 5. Cleanness and instruments sharpening 6. Attitude 7. Professionalism 8. Organization 9. Surgical Procedure <ul style="list-style-type: none"> ▪ Quadrant ▪ Teeth | | |
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| <ul style="list-style-type: none"> • Part V – Re-evaluation 1. Plaque, bleeding indices and re-evaluation findings 2. Definitive treatment plan | | |
| | | |
| <ul style="list-style-type: none"> • Part VI – Recall and maintenance | | |

Faculty Signature: _____

TOTAL GRADE:

TOTAL POINTS:

Student's Performance

| PATIENT NUMBER | CLINICAL DIAGNOSIS | SEVERITY LOCAL FACTORS | REQ/ADDIT | CLINICAL EVALUATION AVREAGE | POINTS |
|-------------------|--------------------|------------------------|-----------|-----------------------------|--------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| Total | | | | | |
| Additional Points | | | | | |

313 PCS
2015-2016

FIRST SEMESTER

| DATE | LECTURE | CLINIC | LECTURER |
|--------------------------|---|--|--------------------------------|
| 25/8/2015 24/8/2015 | Course introduction | Introduction to clinical session, course forms and requirements (lecture room) | Dr. Alshibani Dr. Alaskar |
| 1/9/2015 31/8/2015 | Classification of diseases & conditions affecting the periodontium Chapter 3) | Demonstration on the clinical forms | Dr. Alshibani Dr. Alghamdi |
| 8/9/2015 7/9/2015 | Periodontal anatomy (gingiva & periodontal ligament) (Chapter 2 at www.expertconsult.com) | Demonstration on the clinical forms | Dr. Nath Dr. Alhamdan |
| 15/9/2015 14/9/2015 | Periodontal anatomy (cementum & alveolar bone) (Chapter 2 at www expertconsult.com) | Demonstration on chair position/ students probing each other | Prof. Awartani Dr. alhamdan |
| Hajj Break | | | |
| 29/9/2015 5/10/2015 | Periodontal microbiology (Chapter 23) | Faculty case | Dr. Alotaibi Dr. alzoman |
| 6/10/2015 12/10/2015 | Non-surgical periodontal therapy I: Mechanical & chemical plaque control (Chapter 44) | Review of Oral Hygiene instruction, patient motivation | Dr. Alomar Dr. Alaskar |
| 13/10/2015 19/10/2015 | Non-surgical periodontal therapy II: Scaling & root planing (Chapter 45 & 46) | Introduction to periodontal instruments | Dr. Alhazimi Dr. Alshehri |
| 20/10/2015 26/10/2015 | Non-surgical periodontal therapy III: Sonic & ultrasonic instrumentation & irrigation | Student case (start) | Dr. Nath Dr. Alshehri |
| 27/11/2015 2/11/2015 | Periodontal case presentation | Student case (continue) | Dr. Alsinidi Dr. Alghamdi |
| 3/11/2015 9/11/2015 | Treatment plan seminar | Extra week | Dr. Alshibani |
| 10/11/2015 16/11/2015 | Role of dental calculus & other local predisposing factors (Chapter 22) | Student case (continue) | Dr. Basudan Prof. Anil |
| 17/11/2015 23/11/2015 | Periodontal pocket & patterns of bone destruction (Chapter 13 & 14) | Student case (continue) | Dr. Alshibani Dr. Alqutub |
| 24/11/2015 30/11/2015 | Clinical features of gingivitis & chronic periodontitis (Chapter 8 & 16) | Student case (continue) | Dr. Alomar Dr. Alqutub |
| 1/12/2015 7/12/2015 | Clinical diagnosis (Chapter 8: pg. 82-83 & chapter 30) | Student case (continue) | Dr. Alahmari Dr. Alshehri |
| 8/12/2015 | Course review | Student case (continue) | Dr. Alshibani Dr. Alaskar |
| 15/12/2015 | | Student case (continue) | |

LECTURE SCHEDULE
313 PCS
2013-2014

| SECOND SEMESTER | | | |
|------------------------|--|------------------|---------------------------------|
| DATE | LECTURE | CLINIC | LECTURER |
| 19/1/2016 18/1/2016 | Epidemiology of Periodontal Disease (Chapter 5) | Patients | Dr. Ajlan Prof Anil |
| 26/1/2016 25/1/2016 | Periodontal pathogenesis (Chapter 21) | Patients | Dr. Alotaibi Dr. Alaskar |
| 2/2/2016 1/2/2016 | Host response: basic concepts (Chapter 25) | Patients | Dr. Shaheen Dr. alaskar |
| 9/2/2016 8/2/2016 | Radiographic aids in the diagnosis of periodontal disease (Chapter 31) | Patients | Dr. Alhazimi Dr. Alghamdi |
| 16/2/2016 15/2/2016 | Prognosis & rationale for periodontal treatment (Chapters 33 & 35) | Patients | Dr. zawawi Dr. Alqutub |
| 23/2/2016 22/2/2016 | Periodontal treatment plan (Chapter 34) | Patients | Dr. Alsinidi Dr. Alaskar |
| 1/3/2016 29/2/2016 | Reevaluation & periodontal maintenance (Chapters 33-pg 382, 52- pg 513, 54-pg 525, 78 & handout) | Patients | Dr. Merdad Dr. Alzoman |
| 8/3/2016 7/3/2016 | Periodontal management of medically compromised patients (Chapter 37) | Patients | Prof. Awaratani Dr. Alghamdi |
| MidTermBreak | | | |
| 22/3/2016 21/3/2016 | Periodontal emergencies & acute conditions (Chapters 10, 41, 42 & handout) | Patients | Dr. Alharbi Dr. Alrasheed |
| 29/3/2016 28/3/2016 | Periodontal diseases in children (Chapter 11) | Patients | Dr. Merdad Prof Anil |
| 5/4/2016 4/4/2016 | Systemic diseases & periodontitis (I) (Chapters 26 & 27) | Patients | Dr. Zawawi Dr. Alhamdan |
| 12/4/2016 11/4/2016 | Systemic diseases & periodontitis (II) (Chapters 26 & 27) | Patients | Dr. Nath Dr. Alhamdan |
| 19/4/2016 18/4/2016 | Aggressive periodontitis- diagnosis & treatment (Chapter 18 & 40) | Patients | Dr. Alharbi Dr. Alghamdi |
| 26/4/2016 25/4/2016 | Gingival enlargement (Chapter 9) | Patients | Dr. Alahmari Prof Anil |
| 3/5/2016 2/5/2015 | Course review | Clinical Exam II | Dr. Alshibani Dr. Alaskar |

LECTURE NO. 1**TITLE:** Course Introduction**AIM:** Introduce the course objectives and the intended learning outcomes (ILOs)**ILOs:**

- Introduce the course
- Explain the course outline
- Clarify course objectives
- Explain mark distribution
- Identify the course requirements
- Determine the required text books

CLINICAL SESSION NO. 1**ORIENTATION:**

- Introduction to the clinical sessions, course forms and requirements

LECTURE NO. 2

TITLE: Classification of Diseases and Conditions Affecting the Periodontium

AIM: To classify diseases and conditions affecting the tissues of the periodontium that was presented and discussed at the 1999 International Workshop for the Classification of the Periodontal Diseases organized by the American Academy of Periodontology (AAP).

ILOs:

- The students should be able to classify:
 - ▶▶ Gingival diseases
 - ▶▶ Periodontal diseases
 - ▶▶ Necrotizing periodontal disease
 - ▶▶ Abscesses of the periodontium
 - ▶▶ Periodontitis associated with endodontic lesions
 - ▶▶ Developmental or acquired deformities and conditions

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (4)*

CLINICAL SESSION NO. 2

- Demonstration on the clinical forms.

LECTURE NO. 3**TITLE:** Periodontal Anatomy (Gingiva and Periodontal Ligament)

AIM:

1. To define the structural components of the gingiva and the periodontal ligament of the normal periodontium.
2. Describe their development, vascularization, innervations and functions.

ILOs:

- The students should be able to:
 - ▶▶ Identify the clinical and microscopic gingival features
 - ▶▶ Correlate the clinical and microscopic features in terms of color, size, shape and contour
 - ▶▶ Describe the functions & features of the gingival epithelium
 - ▶▶ State the different stages of tooth eruption
 - ▶▶ Recognize the nature of gingival fluid
 - ▶▶ Categorize the gingival fibers
 - ▶▶ State the different groups of periodontal fibers and identify their structures and functions
 - ▶▶ Compare between gingival and periodontal fibers.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (2 at www.expertconsult.com)*

CLINICAL SESSION NO. 3

- Demonstration on the clinical forms.

LECTURE NO. 4

TITLE: Periodontal Anatomy (Cementum and Alveolar Bone)

- AIM:** 1. To define the structural components of cementum and alveolar bone of the normal periodontium.
2. Describe their development, vascularization, innervations and functions.

ILOs:

- The students should be able to:
 - ▶▶ Describe the permeability of cementum, cemento-enamel junction, cemento-dentinal junction and thickness of cementum
 - ▶▶ Explain cementum resorption and repair
 - ▶▶ Describe the different bone cells and intercellular matrix
 - ▶▶ Explain bone remodeling
 - ▶▶ Describe the different components of bone marrow
 - ▶▶ Interpret and differentiate between periosteum and endosteum
 - ▶▶ Define the bony defects: fenestration and dehiscence
 - ▶▶ State the development stages of the attachment apparatus

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (2 at www.expertconsult.com)*

CLINICAL SESSION NO. 4

- Demonstration on chair position/ students probing each other.

HAJJ BREAK

PCS 313

1st Semester

6th Week

LECTURE NO. 5

TITLE: Microbiology of Periodontal Diseases

- AIM:
1. To understand the nature, formation, accumulation & factors affecting the oral bacteria and their plaque biofilms.
 2. Understand the relationship between bacteria and the periodontal diseases.

ILOs:

- The students should be able to:
 - Describe bacteria biofilm
 - Describe the characteristics of bacteria biofilm and mode of living
 - Define bacterial transmission and translocation
 - State nonbacterial inhabitants of the oral cavity
 - Define the microbiologic specificity of periodontal diseases
 - Understand the process of transition from health to disease
 - Identify the virulence factors of periodontopathogens

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (23)*

CLINICAL SESSION NO. 5

- Faculty Case.

LECTURE NO. 6

TITLE: Non-surgical periodontal therapy I: Mechanical & chemical plaque control

AIM:

1. To introduce the oral hygiene products
2. To describe the methods and technique for oral home care

ILOs:

- The students should be able to:
 - ▶▶ Identify the products and methods that can be utilized by the patients for effective plaque control
 - ▶▶ Select and describe the appropriate oral hygiene measures for patients with periodontal diseases.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (44)*

CLINICAL SESSION NO. 6

Review of Oral Hygiene instruction, patient motivation

LECTURE NO. 7**TITLE:** Non-surgical periodontal therapy II: Scaling & root planing

- AIM:**
1. To illustrate the periodontal instruments (hand) Including their features and areas of use
 2. To explain the principles of scaling and root planing
 3. To illuminate sharpening of the periodontal scalers and curettes.

ILOs:

- The students should be able to:
 - ▶▶ Distinguish the periodontal instruments.
 - ▶▶ Demonstrate sound knowledge of principles of scaling, root planing and instruments sharpening.
 - ▶▶ Apply the concept of scaling and root planing clinically

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (45 and 46*

CLINICAL SESSION NO. 7

Introduction to periodontal instruments

LECTURE NO. 8

TITLE: Non-surgical periodontal therapy III: Sonic & ultrasonic instrumentation & irrigation

AIM: 1. To illustrate the periodontal instruments (power-driven) including their features and areas of use.

ILOs:

- The students should be able to:
 - ▶▶ Know the latest developments in the scaling and irrigating tools
 - ▶▶ Distinguish between sonic and ultrasonic instruments
 - ▶▶ Judge when to use hand instrument or power-driven
 - ▶▶ Apply sonic instrument clinically

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (47 pg 482*

CLINICAL SESSION NO. 8

- Student Case

LECTURE NO. 9

TITLE: Periodontal case presentation

AIM: To demonstrate a comprehensive periodontal case with diagnosis, prognosis and treatment plan with alternatives.

ILOs:

- The students should be able to:
 1. Relate clinical data to diagnosis and prognosis
 2. Select the appropriate mode of treatment
 3. Comprehend the outcome of periodontal treatment

REFERENCE: *Additional Reading*

CLINICAL SESSION NO. 9

- Student Case

PCS 313

10th Week

1st Semester

LECTURE NO. 10

TITLE: Treatment plan seminar (tentative). Only at GUC

Extra week for GUC

CLINICAL SESSION NO. 10

- Student Case

LECTURE NO. 11

TITLE: Role of dental calculus & other local predisposing factors

AIM: To recognize all the aspects related to dental calculus and its relationship to periodontal inflammation as well as other predisposing factors.

ILOs:

- The students should be able to:
 - ▶▶ Identify sub- and supra- gingival calculus
 - ▶▶ Describe calculus composition, attachment, formation and its significant to periodontal tissues
 - ▶▶ Define materia alba
 - ▶▶ Revise other predisposing factors that contribute to periodontal health e.g. smoking, malocclusion, radiation and orthodontic treatment

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (22)*

CLINICAL SESSION NO. 11

- Student Case

LECTURE NO. 12

TITLE: Clinical Features of Gingivitis and Chronic Periodontitis

AIM: To diagnose and identify the clinical features of gingivitis and chronic periodontitis.

ILOs:

- The students should be able to:
 - ▶▶ Describe the changes in gingival contour during inflammation
 - ▶▶ **State gingivitis course and duration**
 - ▶▶ list the gingivitis different **descriptions**
 - ▶▶ Describe the clinical features of chronic periodontitis and its prevalence
 - ▶▶ Identify the local, systemic, environmental, behavioral and genetic factors related to chronic periodontitis

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (8 and 16)*

CLINICAL SESSION NO. 12

- Student Case

LECTURE NO. 13

TITLE: Periodontal pocket & patterns of bone destruction

AIM: To describe the mechanism of periodontal tissue destruction and periodontal pocket formation.

ILOs:

- The students should be able to:
 - ▶▶ Classify the periodontal pockets
 - ▶▶ Identify the clinical features of periodontal pockets
 - ▶▶ Describe mechanisms of gingival and periodontal tissue destruction
 - ▶▶ List the contents of periodontal pocket
 - ▶▶ Outline surface morphology of tooth wall
 - ▶▶ Identify the pulp changes associated with periodontal pockets
 - ▶▶ Describe the relationship of attachment loss and bone loss to pocket depth
 - ▶▶ Describe the bone destruction caused by extension of gingival inflammation
 - ▶▶ List the factors determining bone morphology in periodontal disease
 - ▶▶ Identify the different types of bone destruction patterns

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (13 and 14)*

CLINICAL SESSION NO. 13

- Student Case

LECTURE NO. 14

TITLE: Clinical features of gingivitis & chronic periodontitis

AIM: To diagnose and identify the clinical features of gingivitis and chronic periodontitis.

ILOs:

- The students should be able to:
 - ▶▶ Describe the changes in gingival contour during inflammation
 - ▶▶ **State gingivitis course and duration**
 - ▶▶ list the gingivitis different **descriptions**
 - ▶▶ Describe the clinical features of chronic periodontitis and its prevalence
 - ▶▶ Identify the local, systemic, environmental, behavioral and genetic factors related to chronic periodontitis

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (8 and 16)*

CLINICAL SESSION NO. 14

- Student Case

LECTURE NO. 15**TITLE:** Clinical Diagnosis**AIM:** To assemble all the tools from the patients to establish proper clinical diagnosis and judgment.**ILOs:**

- The students should be able to:
 1. Collect the medical history & dental history from the patient properly
 2. Record intraoral radiographic survey
 3. Use the casts
 4. Collect clinical photographs
 5. Master oral examinations both extra- and intra-oral examination
 6. Practice the examination of the teeth and implants
 7. Practice examination of the periodontium
 8. Assess the laboratory aids
 9. Establish proper clinical diagnosis

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (8 pg. 82-83 & 30)***CLINICAL SESSION NO. 15**

- Regular Patients

LECTURE NO. 16

TITLE: Review

Revision for the lecture content in addition to answering students inquires regarding the content

CLINICAL SESSION NO. 16

- Regular Patients

MIDTERM EXAM AND CLINICAL EXAM

LECTURE NO. 17

TITLE: Epidemiology of Periodontal Disease

AIM: To analyze a disease and establish the diagnostic and therapeutic decisions based on its prevalence, incidence, and distribution in large populations or groups.

ILOs:

- The students should be able to:
 - ▶▶ Recognize the role of epidemiology
 - ▶▶ Describe how to measure the occurrence of conditions or diseases
 - ▶▶ Identify the challenges in obtaining epidemiologic measures of periodontal conditions and diseases
 - ▶▶ Differentiate between periodontal conditions versus periodontal diseases
 - ▶▶ Identify the diagnostic tests available to assess periodontal conditions.
 - ▶▶ Give examples of some epidemiological data on periodontal disease in Saudi Arabia.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (5)*

CLINICAL SESSION NO. 17

- Regular Patients

2nd Semester**LECTURE NO. 18****TITLE:** Periodontal Pathogenesis**AIM:**
1. To understand the origin and the development of the periodontal disease.
2. Understand the periodontal tissues reaction to the disease.**ILOs:**

- The students should be able to:
 - ▶▶ Identify the histology of diseased gingival and periodontal tissues
 - ▶▶ Recognize the role of inflammatory responses in the periodontium
 - ▶▶ Identify the inflammatory mediators during bone resorption
 - ▶▶ Interpret the concept of host susceptibility
 - ▶▶ Recognize the immune responses in periodontal pathogenesis (innate immunity and adaptive immunity)
 - ▶▶ Demonstrate the clinical features of diseased periodontium

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (21)***CLINICAL SESSION NO. 18**

- Regular Patients

LECTURE NO. 19

TITLE: Host response: basic concepts

AIM: To introduce an overview of the molecular biology of the host-parasite relationship from a cellular signaling perspective point of view.

ILOs:

- The students should be able to:
 - ▶▶ Define innate immunity in periodontal diseases
 - ▶▶ Define adaptive immunity in periodontal diseases
 - ▶▶ Describe the host-microbe interactions
 - ▶▶ Comprehend the most common cytokines and mediators of inflammation
 - ▶▶ Understand the function of cytokines and mediators of inflammation in regard to periodontal inflammation.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (25)*

CLINICAL SESSION NO. 19

- Regular Patients

LECTURE NO. 20

TITLE: Radiographic aids in the diagnosis of periodontal disease

AIM: To develop appropriate radiographic diagnosis of periodontal diseases

ILOs:

- The students should be able to:
 - ▶▶ Demonstrate the normal radiographic appearance of the interdental bone
 - ▶▶ Demonstrate the proper radiographic techniques that depict the periodontal bone status
 - ▶▶ Assess changes in the interdental bone in periodontal disease
 - ▶▶ Illustrate the radiographic features of different periodontal defects.
 - ▶▶ Differentiate the radiographic appearance of local or systemic diseases of the facial bones that can mimic periodontitis.
 - ▶▶ Use their knowledge and understanding of the dental radiographs to identify periodontal diseases (cognitive skill)
 - ▶▶ Think and practice radiographic interpretation of periodontitis cases (psychomotor skill).

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (31)*

CLINICAL SESSION NO. 20

- Regular Patients

LECTURE NO. 21

TITLE: Prognosis & rationale for periodontal treatment

AIM: 1. To determine the prognosis of teeth with periodontal destruction.
 2. To describe the possible healing outcomes following periodontal therapy

ILOs:

- The students should be able to:
 - ▶▶ Define the prognosis
 - ▶▶ Identify factors that determine the prognosis
 - ▶▶ Discusses the potential prognoses of the various periodontal diseases
 - ▶▶ Predict the overall as well as specific prognosis of case scenario (cognitive skill)
 - ▶▶ Estimate the effectiveness of periodontal therapy
 - ▶▶ Describe the possible outcomes of periodontal therapy

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (33 and 35)*
)

CLINICAL SESSION NO. 21

- Regular Patients

LECTURE NO. 22

TITLE: Periodontal treatment plan

AIM: To formulate and explain an appropriate treatment plan for patients with periodontal diseases.

ILOs:

- The students should be able to:
 - ▶▶ Recognize the short-and long-term goals of the periodontal treatment
 - ▶▶ Formulate an appropriate treatment plan considering all its phases in response to the requirements of the case
 - ▶▶ Demonstrate effective personal communication and patient motivation in treatment planning

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (34)*

CLINICAL SESSION NO. 22

- Regular Patients

PCS 313

23rd Week

2nd Semester

LECTURE NO. 23

TITLE: Reevaluation and Periodontal Maintenance

AIM: 1. To define the reevaluation and maintenance phases of periodontal therapy and discuss their importance for appropriate management of periodontal diseases.

2. To explain the steps of reevaluation and maintenance therapy.

ILOs:

- The students should be able to:
 - ▶▶ Identify the importance and valuable outcomes of reevaluation and maintenance phases of periodontal treatment plan
 - ▶▶ Practice reevaluation of phase I therapy for their periodontitis patients.

REFERENCE: ***CARRANZA's Clinical Periodontology 11th Edition Chapter (33 pg 382, 52 pg 513, 54 pg 525, 78 and handout)***

CLINICAL SESSION NO. 23

- Regular Patients

PCS 313

2nd Semester

24th Week

LECTURE NO. 24

TITLE: Periodontal management of medically compromised patients

AIM: To explain the appropriate periodontal management of medically compromised patients

ILOs:

- The students should be able to:
 - ▶▶ Recognize the appropriate periodontal management of patients with certain systemic diseases

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (37)*

CLINICAL SESSION NO. 24

- Regular Patients



Mid-term Break

LECTURE NO. 26**TITLE:** Periodontal Emergencies and Acute Conditions**AIM:** To discuss the most common forms of acute periodontal conditions that imply emergency management.**ILOs:**

- The students should be able to:
 - ▶▶ Identify the etiology of acute gingival and periodontal diseases.
 - ▶▶ Distinguish the clinical features of periodontal emergencies and acute conditions.
 - ▶▶ Predict the diagnosis and differential diagnosis of acute gingival and periodontal diseases.
 - ▶▶ Plan appropriate treatment and management strategies for the acute periodontal conditions.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (10, 41, 42 and handout)***CLINICAL SESSION NO. 26**

- Regular Patients

LECTURE NO. 27**TITLE:** Periodontal Diseases in Children**AIM:** To clinically describe the oral mucosa and periodontium of childhood in health and disease**ILOs:**

- The students should be able to:
 - ▶▶ Recognize the clinical features of periodontium of primary dentition
 - ▶▶ Identify periodontal changes associated with normal development
 - ▶▶ Distinguish the clinical characteristics of the children's oral mucosa
 - ▶▶ Describe different forms of gingival and periodontal diseases of childhood

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (11)***CLINICAL SESSION NO. 27**

- Regular Patients

LECTURE NO. 28**TITLE:** Systemic Diseases and Periodontitis I**AIM:** To explain the influences of the most common systemic diseases and conditions on the periodontium in patients with periodontitis.**ILOs:**

- The students should be able to:
 - ▶▶ Identify the effects of smoking on the prevalence, severity, and pathogenesis
 - ▶▶ Identify the effect of smoking on response to periodontal therapy (non surgical, surgical and maintenance therapy)
 - ▶▶ Recognize the relationship between endocrine disorders & periodontal disease.
 - ▶▶ Assess the relationship between oral & periodontal tissue and hematological disorders.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (26 and 27)***CLINICAL SESSION NO. 28**

- Regular Patients

LECTURE NO. 29**TITLE:** Systemic Diseases and Periodontitis II**AIM:** To explain the influences of the most common systemic diseases and conditions on the periodontium in patients with periodontitis.**ILOs:**

- The students should be able to:
 - ▶▶ Recognize the effects of nutrition and medications on oral & periodontal tissue.
 - ▶▶ Identify the relationship between deficiencies in the host defense mechanism & destructive periodontal lesions.
 - ▶▶ Identify the possible relationship between genetic disorders and severity of periodontitis.
 - ▶▶ Assess the possible correlation between psychosomatic disorders and the occurrence of periodontal disease.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (26 and 27)***CLINICAL SESSION NO. 29**

- Regular Patients

LECTURE NO. 30**TITLE:** Aggressive Periodontitis- Diagnosis and Treatment

AIM:

1. To define the aggressive form of periodontitis and explain its prevalence and distribution, associated risk factors as well as the clinical and radiographic features.
2. To describe the recommended treatment planning and maintenance programs for aggressive periodontitis.

ILOs:

- The students should be able to:
 - ▶▶ Recognize the localized and generalized forms of aggressive periodontitis
 - ▶▶ Describe the clinical and radiographic features of aggressive periodontitis
 - ▶▶ Identify the possible risk factors for aggressive periodontitis
 - ▶▶ Write an appropriate treatment planning and maintenance programs for aggressive periodontitis.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (18 and 40)*

CLINICAL SESSION NO. 30

- Regular Patients

LECTURE NO. 31**TITLE:** Gingival Enlargement**AIM:** To describe the different forms of gingival enlargement and illustrate their etiology and clinical characteristics**ILOs:**

- The students should be able to:
 - ▶▶ Identify the different forms of gingival enlargement
 - ▶▶ Recognize the etiological factors of gingival enlargement
 - ▶▶ Describe the clinical features of different forms of gingival enlargement.

REFERENCE: *CARRANZA's Clinical Periodontology 11th Edition Chapter (9)***CLINICAL SESSION NO. 30**

- Regular Patients

PCS 313

2nd Semester

31st Week

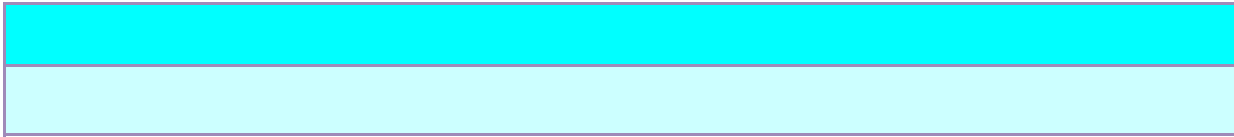
LECTURE NO. 31

TITLE: Course Review

Revision for the lecture content in addition to answering students inquires regarding the content

CLINICAL SESSION NO. 31

- Clinical Examination II



FINAL WRITTEN EXAMINATION

