



KING SAUD UNIVERSITY
College of Dentistry

**Department of Periodontics
and Community Dentistry**



413 PCS

CLINICAL PERIODONTOLOGY II

COURSE DIRECTOR : DR. MOHAMMAD AL-SARHAN

COURSE CO-DIRECTOR : DR. Fahad AlShehri

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

Created by

Prof. Nahid Ashri

Reviewed and Updated by

PCS Department Courses Review and Update Committee

- | | |
|-------------------------------|--------------------|
| - Prof. Nahid Ashri | Chairperson |
| - Prof. Nadir Babay | Member |
| - Dr. Salwa Al Sadhan | Member |
| - Dr. Reem Al Kattan | Member |
| - Dr. Mansour Al Askar | Member |

COURSE TITLE: ADVANCED PERIODONTAL THERAPY

COURSE CODE: PCS 413

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

PREREQUISITES: PCS 313

COURSE DESCRIPTION:

This course consists of a didactic and clinical component with four credit hours. This course is given to the fourth year students with the objective of teaching them how to do diagnosis, prognosis and comprehensive treatment plan that include surgery. It will cover:

1. The treatment of advanced forms of periodontal diseases.
2. The interrelation between Periodontics and other dental specialties.
3. Introduction to the surgical approaches in the management of moderate to advanced periodontal diseases
4. Overview of the Surgical implant procedures and implant maintenance
5. Communication, Presentation and Writing Skills Development
6. Introduction to evidence based and problem based learning

COURSE OBJECTIVES:

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

1. Perform a comprehensive diagnosis and prognosis 1.2, 1.3, 2.1
2. Formulate treatment plan that includes specific surgical approaches 1.3, 1.4, 2.2, 2.3
3. Motivate and Train patients to perform oral hygiene techniques 1.4, 5.1
4. Practice subgingival scaling and root planing. 1.4, 5.1
5. Identify the indications and procedures of periodontal surgical techniques 1.4
6. Evaluate the result of the performed periodontal therapy and plan the long-term result. 2.2
7. Identify recent materials and techniques in periodontal therapy 1.8
8. Recognize the role of trauma from occlusion in the etiology of periodontal disease 1.2
9. Identify peri-implant structures. 1.4
10. Identify the surgical procedures in implant dentistry from a periodontal point of view 1.4
11. Demonstrate improved communication, presentation and writing skills 3.1, 3.4, 4.1
12. Distinguish between Evidence based and problem based learning and apply it to the treatment approaches 2.3

CLINICAL COMPONENTS

This second part of this course will involve the treatment of patients with periodontitis. Upon completion of this part, the student should be able to:

- Discuss the etiology; diagnosis, prognosis and treatment plan for Periodontitis.
- Complete periodontal treatment of patients with different degree of severity and extent of disease, including routine preventive care and non-surgical periodontal treatment.
- Interpret and evaluate the treatment response.
- Discuss the surgical procedures such as Gingivectomy, periodontal flap surgery, and regenerative procedures.

- Describe regenerative periodontal techniques (bone regeneration and periodontal tissue regeneration).

COURSE CLINICAL REQUIREMENTS:

Students must satisfactorily complete the following *minimum requirements*:

Finish at least six (6) clinical cases:

- One case with generalized periodontitis including *slight/moderate* amount of subgingival calculus and/or systemic factors
- One case with generalized periodontitis case including *moderate/severe* amount of subgingival calculus and/or systemic factors
- One submitted *surgical report case* including either crown lengthening procedure or conventional periodontal surgery (open flap debridement or modified Widman flap) or implant Fixture placement.
- One *moderate to severe periodontitis re-evaluation case* treated *from the students own patients*
- One *recall and periodontal maintenance* case treated by the student or any other colleagues
- Clinical case presentation based on evidence based learning and/or problem based learning *from the student's own patient.*
- Any additional cases **(with the exception of additional Surgical report)** will be considered positively in your clinical grading

COURSE PROTOCOL:

- Screening of clinical cases by the **COURSE DIRECTOR** is mandatory.
- Approval of the **COURSE DIRECTOR** to dismiss or transfer patients is mandatory.
- The **COURSE DIRECTOR** should approve a selected clinical case for the final competency clinical examination.
- **SIGNING AND APPROVING** of the treatment plan is mandatory before starting the treatment procedures
- Students are expected to perform **satisfactorily** in both clinical and written 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 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.
- At the end of each clinical session the student should obtain the signature of the instructor. A temporary file is not acceptable.
- 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 (6 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 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:

To pass the course you should have passing grades in both the didactic and clinical parts. The student should pass both the final written exam and the final clinical exam.

Final mark will be calculated as follows:

| | | |
|-----------|--|--------------|
| A. | WRITTEN EXAMINATION | (40%) |
| | 1. Midterm examination | 20% |
| | 2. Final examination | 20% |
| | | |
| B. | CLINICAL EVALUATION | (60%) |
| | 1. Routine clinical evaluation/Requirement | 30% |
| | 2. Clinical competency exam/ Case report | 20% |
| | 3. Punctuality & Activities/Quizzes | 10% |
| | | 100% |
| | TOTAL | |

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:

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

Clinical Case Presentation (Oral) Exam:

- A group of **eight to ten** students will be assigned to one faculty.
- Each group **need to select an advanced periodontal case from their own patients.**
- **Approval of any case should be reviewed with the assigned faculty.**
- **Documentation (i.e intra-oral photo's, radiographs, cast models) before starting any procedure should be available for approval**
- Each student **should contribute to the group work in formulating** an evidence based comprehensive treatment plan
- A meeting between group members to discuss and submit only one typed written comprehensive treatment plan (data, treatment plan, Reference) is mandatory.
- The final case report should be submitted to the supervising faculty **two days** prior to the oral case presentation.
- The time allocated for all presentations **will be planned within the timetable of the students accordingly.**

Note

- * Grading of the case report/**Oral presentation** is out of **10 marks**.
- * Incomplete or Failure to submit the report **two days** prior to the presentation will be given a **failing grade**

CLINICAL SCALING AND ROOT PLANING EXAM:

- Each student should perform a scaling and root planing examination in a selected quadrant of his/her ongoing clinically treated case
- Presence of **moderate amount of subgingival calculus** is mandatory
- The **COURSE DIRECTOR** should first approve the selected teeth.
- The Examination should only start with the approval of both the course director and the clinical supervisor.
- Duration of the clinical examination is one hour and a half (1:30)
- The timing for performing the scaling and root planing examination should be done during the **2nd semester TWO weeks BEFORE the end of the semester.**

SURGICAL PROCEDURE REPORT:

- The surgical procedure will be evaluated on the preparation, knowledge and a submitted report.
- The report should be type written and include:
 - Type of surgery
 - Detailed surgical procedure
 - Advantages and disadvantages of the procedures
 - Pre and post surgical radiographs and photographs.
- All photographs and radiographs should be documented and submitted on a flash disk with the report **TWO weeks after the surgical procedure.**

ROUTINE EVALUATION AND REQUIREMENT:

The final mark will account for 40% of the total marks of the course and it is distributed as follows:

| | |
|----------------------------------|-----|
| ▪ Routine evaluation | 15% |
| ▪ Clinical Requirement | 15% |
| ▪ Punctuality & Activity/Quizzes | 10% |

REQUIRED TEXT:

1. **Carranza's Clinical Periodontology**, 12th edition, Michael G. Newman, Henry Takei, Perry R. Klokkevold, and Fermin A. Carranza (editors), Saunders; 12 edition (July 14, 2014)
2. **Color Atlas of Dental Medicine 1, Periodontology**, 3rd ed. Herbert F. Wolf, Edith M. Rateitschak-Pluss, Klaus H. Rateitschak, Thieme Inc., 2005.
3. Periodontal Division Clinical Manual

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/nashri/default.aspx>
<http://fac.ksu.edu.sa/malsarhan/course/47809>

In addition, (Blackboard) will include additional educational material.
<https://lms.ksu.edu.sa/>

CLINICAL PERIODONTOLOGY II
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DIDACTIC COMPONENT

- ONE MID-YEAR EXAMINATION, COVERING 1st SEMESTER LECTURES.
- ONE FINAL YEAR EXAMINATION, COVERING 2nd SEMESTER LECTURES + SELECTED TOPICS FROM 1st SEMESTER

15% Routine evaluation

MEASURES THE QUALITY OF THE WORK PERFORMED BY THE STUDENT DURING THE MANAGEMENT OF HIS/HER PERIODONTAL PATIENTS.

- ONE GENERALIZED PERIODONTITIS INCLUDING SLIGHT/MODERATE AMOUNT OF SUBGINGIVAL CALCULUS AND/OR SYSTEMIC FACTORS.
- ONE GENERALIZED PERIODONTITIS CASE INCLUDING MODERATE/SEVERE AMOUNT OF SUBGINGIVAL CALCULUS AND/OR SYSTEMIC FACTORS.
- ONE SURGICAL REPORT CASE INCLUDING EITHER CROWN LENGTHENING PROCEDURE OR CONVENTIONAL PERIODONTAL SURGERY (OPEN FLAP DEBRIDEMENT OR MODIFIED WIDMAN FLAP) OR IMPLANT FIXTURE PLACEMENT.
- ONE MODERATE TO SEVERE PERIODONTITIS RE-EVALUATION CASE TREATED FROM THE STUDENT'S OWN PATIENTS.
- ONE RECALL AND PERIODONTAL MAINTENANCE CASE TREATED BY THE STUDENT OR ANY OTHER COLLEAGUES

15% clinical requirement

ONE CLINICAL CASE PRESENTATION (PER EACH GROUP) FROM STUDENT'S OWN PATIENTS.

ONE SELECTED QUADRANT CLINICAL SCALING & ROOT PLANNING EXAM, AFTER APPROVAL FROM COURSE DIRECTOR.

20%

A TOTAL OF 4 QUIZES DISTRIBUTED THROUGHOUT THE YEAR, GRADED 5 POINTS

COURSE ACTIVITY & GENERAL PUNCTUALITY AND PROFESSIONALISM 5 POINTS

10 %

CLINICAL COMPONENT

Course Director, Course Coordinator and Participating Faculty Contact Information:

- Dr. Mohammad AlSarhan perio.alsarhan@gmail.com
- Dr. Hamdan AlGhamdi drhmdan@gmail.com
- Dr. Montaser Alqutub alqutub@hotmail.com
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- Dr. Fahad AlShehri fahad.upenn@gmail.com

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CLINICAL EVALUATION GUIDELINES

| GRADE | CLINICAL PRCEDURE |
|--------------------------|--|
| | <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 x-ray• Scaling and root planing |
| 90-100 | <ul style="list-style-type: none">• No injury to gingival tissue• No roughness left• Good knowledge• Complete removal of sub.& supragingival calculus |
| 80-89 | <ul style="list-style-type: none">• No injury to gingival tissue• <u>Localized</u> roughness left• Complete removal of supra. & sub-gingival calculus |
| 70-79 | <ul style="list-style-type: none">• Some injury to gingival tissue• Unable to detect localized areas of subgingival calculus• <u>Multiple areas</u> with root roughness left |
| 60-69 | <ul style="list-style-type: none">• Obvious injury to gingival tissue• <u>Multiple areas with sub. & supragingival calculus</u> |
| <60 (Fail) | <ul style="list-style-type: none">• Remarkable injury to gingival tissue• <u>Unable to detect huge amount of sub & supragingival calculus</u>• <u>Does no deserve to pass (unsafe)</u> |

PERIODONTAL CLASSIFICATION 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 | | | |

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

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FIRST SEMESTER

| Date | Requirement | Complete | In Progress | Needed |
|-------------|--------------------|-----------------|--------------------|---------------|
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STUDENT'S PROGRESS

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SECOND SEMESTER

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

**413 PCS
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 <ol style="list-style-type: none"> 1. Chief complaint, oral history, medical history 2. Examination, intra and extra-oral examination | | |
| | | |
| <ul style="list-style-type: none"> • Part II- Clinical Examination <ol style="list-style-type: none"> 1. Periodontal Charting 2. Radiographic interpretation 3. Systemic and oral diagnosis | | |
| | | |
| | | |
| <ul style="list-style-type: none"> • Part III - Treatment Plan <ol style="list-style-type: none"> 1. Motivation, OHI, Periodontal treatment plan 2. Other dental treatment specialties needed 3. Initial surgical treatment plan 4. Specific and general prognosis | | |
| | | |
| | | |
| | | |
| <ul style="list-style-type: none"> • Part IV - Therapy <ol style="list-style-type: none"> 1. Motivation and oral hygiene performance 2. Gross Scaling and polishing 3. Scaling and root planning <ol 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 instrument 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 <ol style="list-style-type: none"> 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:

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Final Clinical Competency Exam I (10%)

SCALING & ROOT PLANING EXAM

Date: _____

Patient Name: _____

File No.: _____

Teeth Selected: _____

| Clinical Procedure | Grade 10 | Instructor's I Signature | Grade 10 | Instructor's II Signature | Average |
|---------------------------|----------|--------------------------|----------|---------------------------|---------|
| Neatness | | | | | |
| Competence | | | | | |
| Time management | | | | | |
| Instrument Sharpness | | | | | |
| Tissue management | | | | | |
| Scaling and root planning | | | | | |
| TOTAL | | | | | |

STUDENT SIGNATURE:

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**Clinical Competency Exam II (10%)
Case Presentation**

Student Name: _____

Group Number: _____

| Performance | Grade 10% | Grade 10% | Signature I | Signature II |
|---------------------------|--------------|--------------|----------------|-----------------|
| Preparation | | | | |
| Organization | | | | |
| Confidence | | | | |
| Scientific back ground | | | | |
| Discussion | | | | |
| TOTAL Grade | | | | |

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 | | | | | |

| MIDTERM EXAM 20 | FINAL CLINICAL EXAM I 10 | CASE PRESENTATION 10 | TOTAL 40 | PUNCTUALITY 10 | CLINICAL EVALU. 15 | CLINICAL REQR. (POINTS) 15 | TOTAL 40 |
|--------------------|-----------------------------|-------------------------|-------------|-------------------|-----------------------|-------------------------------|-------------|
| | | | | | | | |
| | | | | | | | |

Course Director Signature

