وحدة تطوير المناهج
Curriculum Development Unit

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specifications
(CS)

Course Name	**Preclinical Periodontology**	
Course Code	190136010	
Academic Level	3rd Level	
Semester	2nd	
Study Plan No	33	
Department	Basic & Clinical Oral Sciences	
Division	Periodontology	
Academic Year	2018-2019 AD – 1439-1440 AH	
Contact hours	Theoretical	3 / week
	Practical	7 / week
	Clinical	Non / week
Total Contact Hours	10 / week	
Total Credit Hours	6.5	

Course Specifications

Institution: Umm Al-Qura University **Date of Report**:2/6/2018
College/Department: College of Dentistry/ Basic and Clinical Oral Sciences

A. Course Identification and General Information

1. Course title and code: Preclinical Periodontology / Code:190136010
2. Credit hours:6.5 Credit hours
3. Program(s) in which the course is offered. Bachelor Degree of Dental Medicine and Surgery (B.D.S)
4. Name of the faculty member responsible for the course: Dr. EmanTellaProfessor of Periodontology (Coordinator)
5. Level/year at which this course is offered: Third year (2nd semester)
6. Pre-requisites for this course : Successful completion of second year.
7. Location if not on the main campus: Course is offered in the main campus.
8. Mode of Instruction

a.Traditional classroom	What p	Yes ge?	30%
b. Blended (traditional and online)			What percentage?
c. E-learning	What percen	Yes	10%
d. Correspondence	What percentag		
e.Other	What perce	Yes	60%

Comments:

a.Traditional classroom in the form of face to face interactive lectures.
c. e-learning using strategies of computer based assignments.
e.Other: practical sessions training on dummies in the phantom laboratory.

B. Objectives

1. What is the main purpose of this course?

The main purpose of this course is to prepare each student to be able to practice the non surgical phase of periodontal therapy. Students will learnperiodontal microbiology, immunology and pathogenesis as well asthe clinical, histopathological and radiographic features of periodontal diseases in an integrated form. Moreover, each student should be able to performsupragingivaland subgingival scaling on dummy heads in the phantom laboratory.

2.Plans for developing and improving the course that are being implemented.

2.1. Constructing computer based case studies at the end of the course to enhance problem solving and critical analysis skills of the students.
2.2. Using rubrics (analytic scoring rubrics)as objective assessment tools for evaluating students' assignments and presentations.
2.3. Implementing OSPE in the practical exams.

C. Course Description:

1. Topics to be Covered
A. Theoretical (Lectures)

List of Topics	No of hours/ week	Contact Hours
1. Introduction to periodontology as well as root formation, cementum structure and function.	3 hours/week for one week	3hours
2. Alveolar Bone.	3 hours/week for one week	3hours
3. Periodontal Ligament.	2 hours/week for one week	2hours
4. Gingiva and Dentogingival Junction.	2 hours/week for one week	2hours
5. Anatomic structure of the gingiva.	1hour/week for one week	1hour

6. Criteria of healthy gingiva and biological width.	2 hours/week for one week	2hours
7. Criteria of diseased gingiva.	1 hour/week for one week	1 hour
8. Classification of periodontal diseases.	2hours/week for one week	2hours
9. Defense mechanism of the gingiva.	2hours/week for one week	2hours
10. General principles of Microbiology	3hours/week for one week	3hours
11. Dental Plaque	1 hour/week for one week	1hour
12. Dental Calculus	1 hour/week for one week	1 hour
13. Other etiological factors	1 hour/week for one week	1 hour
14. General principles of Immunology	2hours/week for one week	2 hours
15. Periodontal Pathogenesis	2 hours/week for two weeks	6hours
16. Transition from health to disease.	1 hour/week for one week	1 hour
17. Plaque induced gingivitis.	1 hour/week for one week	1 hour
18. Chronic Periodontitis.	2 hours/week for one week	2 hours
19. Radiographic interpretation of periodontal disease.	2hours/week for one week	2 hours
20. Periodontal pocket.	1 hour/week for one week	1 hour
21. Bone loss & patterns of bone destruction.	2hours/week for one week	2 hours
22. Periodontal Charting	2 hours/week for one week	2 hours
22. Genetic factors and periodontal disease	2hours/week for one week	2 hours
Total		**42hours**

1. Topics to be Covered **B. Practical (Laboratory)**		
List of Topics	**No of hours/ week**	**Contact Hours**
1. Root formation andcementum.	1 hour/week for one week	1 hour
2. Alveolar Bone.	1 hour/week for one week	1 hour
3. Periodontal Ligament.	1 hour/week for one week	1 hour
4. Gingiva and Dentogingival Junction (development of the attachment apparatus).	1 hour/week for one week	1 hour
5. Macro anatomy of the gingiva(clinical features of healthy gingiva).	1 hour/week for one week	1 hour
6. Classification of diseases and conditions affecting the periodontium.	1 hour/week for one week	1 hour
7. Defense mechanisms of the gingiva (Gingival Crevicular Fluid, Saliva and Leukocytes).	1 hour/week for one week	1 hour
8. General principles of Microbiology.	1 hour/week for one week	1 hour
9. Biofilm and periodontal microbiology.	1 hour/week for one week	1 hour
10. The role of Dental Calculus and other local predisposing factors.	1 hour/week for one week	1 hour
11. Histopathology of periodontal disease and linking pathogenesis to the clinical signs of disease.	2 hours/week for one week	2 hours
12. The transition from health to disease and virulence factors of periodontopathogens.	1 hour/week for one week	1 hour
13. Gingival inflammation and clinical features of gingivitis.	2 hours/week for one week	2 hours
14. The periodontal pocket (classification and relationship of attachment loss and bone loss to pocket depth).	1 hour/week for one week	1 hour

15. Chronic Periodontitis.	2 hours/week for one week	2 hours
16. Radiographic aids in diagnosis of periodontal disease.	2 hours/week for one week	2 hours
17.Bone loss and patterns of bone destruction.	1 hour/week for one week	1 hour
18. Periodontal Instruments.	5 hours/week for one week	5 hours
19. Diagnosis of periodontal disease (Learning how to record in the periodontal chart).	3 hours/week for one week	3 hours
20.General Principles of periodontal instrumentation.	4 hours/week for one week	4 hours
21. Principles of Scaling and root planing (on dummy heads in the phantom laboratory). -supragingival scaling technique. - subgingival scaling and root planing techniques. - various approaches to instrumentation in different areas of the mouth.	7 hours/week for 7 weeks	49 hours
22. Instrument sharpening.	2hours/week for one week	2 hours
23. Plaque biofilm control for periodontal patient (SDL).	7 hours/week for two week	14 hours
Total		**98 hours**

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	PBL /SDL	Practical	Other:	Total
Contact Hours	42			98		140
Credit Hours	3			3.5		6.5 Credits

3. Additional private study/learning hours expected for students per week.	7 hours/week

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

Course Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning, assessment, and teaching.

The *National Qualification Framework* provides five learning domains. Course learning outcomes are required. Normally a course has should not exceed eight learning outcomes which align with one or more of the five learning domains. Some courses have one or more program learning outcomes integrated into the course learning outcomes to demonstrate program learning outcome alignment. The program learning outcome matrix map identifies which program learning outcomes are incorporated into specific courses.

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains. Second, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. Third, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcome, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. Fourth, if any program learning outcomes are included in the course learning outcomes, place the @ symbol next to it.

Every course is not required to include learning outcomes from each domain.

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	Describe the development and the normal anatomy as well as the microbiological and immunological aspects of theperiodontium.	Interactive lectures. Practical sessions. Group assignments. Computer based Case discussion.	Quiz Mid semester written examination. Final practical exam(OSPE). Final semester written examination Assessment of group assignments presentation using rubrics.
1.2	Identify the initiating and the local predisposing factors of periodontal disease.		
1.3	Recognize the clinical and radiographic features of periodontal disease.		
2.0	**Cognitive Skills**		
2.1	Relate the clinical features of gingivitis and chronic periodontitis with the etiological factors and histopathological changes.	Interactive lectures. Practical sessions. Computer based Case discussion.	Quiz Mid semester written examination. Final practical exam(OSPE). Final semester written examination Assessment of group assignments presentation using rubrics.
2.2	Differentiate between the clinical and the radiographic features of gingivitis and chronic periodontitis.		
3.0	**Interpersonal Skills & Responsibility**		
3.1	Demonstrate responsibility in both scientific & professional contexts	Group assignments	Assessment of group assignments presentation using rubrics.
3.2	Work effectively with colleagues and supervisors to complete the assigned tasks.		
4.0	**Communication, Information Technology, Numerical**		
4.1	Use information technology as a mean of communication.	Group assignments	Assessment of group assignments presentation using rubrics.

5.0	**Psychomotor**		
5.1	Demonstrate the proper general principles of instrumentation as well as the principles of scaling and root planing during working on dummy heads in the phantom laboratory.	Practical sessions	- Practical exam (SRP). - Final practical exam(OSPE).

Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching

NQF Learning Domains	Suggested Verbs
Knowledge	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write
	estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise
Interpersonal Skills & Responsibility	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write
Communication, Information Technology, Numerical	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize
Psychomotor	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct

Suggested *verbs not to use* when writing measurable and assessable learning outcomes are as follows:
Consider Maximize Continue Review Ensure Enlarge Understand
Maintain Reflect Examine Strengthen Explore Encourage Deepen
Some of these verbs can be used if tied to specific actions or quantification.

Suggested assessment methods and teaching strategies are:

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

5. Schedule of Assessment Tasks for Students during the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion to Total Assessment
1	Quiz	Week seven	5%
2	Mid semester written examination (MCQs, EMQs and Short Answer Questions)	Week eleven	15%
3	E-learning (SDL and Oral presentation)	Week six and seven	10%
4	Practical Scaling exam on dummy heads in the phantom laboratory.	Eleven & twelve	20%
5	Final practical exam (OSPE).	Week thirteen	30%
6	Final written exam (MCQs, EMQs and Short Answer Questions)	Week Fourteen	20%
	Total		100%

D. Student Academic Counseling and support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice.

Every faculty and teaching staff is available for at least 4hours/week according to the working schedule shown in the course outline (syllabus).

E. Learning Resources

1. List Required Textbooks

1.1. Antonio Nancy. Ten Cate Oral Histology, development and structure and function, 7th ed. Mosby Co., St Louis; 2007.
1.2. Berkovitz BKB, Maxham B Jand Holland G R.Berkovitz oral anatomy, histology and embryology.4th ed. Mosby Elsever;2009.
1.3. Newman, Takei, Klokkevold, and Carranza. Clinical Periodontology Expert Consult: Text with Continually Updated Online Reference. 12th ed., Saunders (W.B.) Co Ltd;2015.

1.4.Edith M & Klaus H Rateitschak, Wolf and HassellThieme. Color Atlas of Dental Medicine: Periodontology 3rd ed., Stratton Corp;2005. 1.5. White SC and M J Pharoah.Oral Radiology Principles and interpretation, 6th ed., Mosby ELSEVIER; 2009. 1.6. Lindhe J. Clinical Periodontology and Implant Dentistry, 6th ed.,Blackwell Publishing; 2015.
2. List Essential References Materials (Journals, Reports, etc.) 2.1. Periodontology 2000. 2.2. Journal of Periodontology.
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) 3.1.Journal of Clinical Periodontology. 3.2. Journal of Periodontal Research. 3.3.JoenI Haring and Laura Jansen.Dental Radiography: Principles and Techniques, 3rd ed., WB Saunders;2006. 3.4.Eric Whaites, Harcut: Essentials of Dental radiography and radiology, 4th ed., Health Science; 2009. 3.5.Jill S. Nield-Gehrig.Fundamentals of Periodontal Instrumentation & Advanced Root Instrumentation.7th ed., Lippincott Williams & Wilkins;2012.
4. List Electronic Materials (eg. Web Sites, Social Media, smart board.etc.) 4.1.American Academy of Periodontology. "http://www.perio.org/". 4.2.British Society of Periodontology. "http://www.bsperio.org.uk/". 4.3.Smart Board.
5. Other learning materials: Models - light microscopes and H&E slides.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) **1.1. Classrooms:** Each teaching classroom in the faculty is large enough to accommodate 60 students at one time and it includes enough number of comfortable seats arranged in rows with spaces between them. These classrooms are supplied with audiovisual equipment, data show, a large screen, screen pointers. **1.2. Laboratories:**these are supplied with wide study benches, specimens, data show, large screens,

good lighting sources and other equipments needed for training of the students. Dental Models mounted on phantom heads to simulate real patients and allow practicing examination and scaling.
2. Computing resources (AV, data show, Smart Board, software, etc.) All students have the opportunity to use computer with internet access in a comfortable place.
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) Transparent Models and models for periodontal disease.

G. Course Evaluation and Improvement Processes

1. Strategies for Obtaining **Student Feedback** on Effectiveness of Teaching: 1.1. A course evaluation questionnaire is designed to assess the effectiveness of thecourse regarding objectives, teaching facilities, instructor, assessment process and resources. It is distributed to all the students at the end of the course, data is analyzed, interpreted and discussed by the course director or committee in order to issue an improvement plan for any difficulties facing the students. 1.2. Focus group discussion with the students to validate the questionnaire results.
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor 2.1. A course evaluation questionnaire is designed to assess the effectiveness of the course. It is distributed to instructors who participated in teaching the course at the end of the semester, data is analyzed, interpreted and discussed by the course director or committee. 2.2. An annual course report is compiled by the course director or committee in light of the results of students performance as well the results of the course evaluation questionnaire by students.

3 Processes for Improvement of Teaching: Workshop for staff development
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) 4.1. Double checking of the students answers by two raters or evaluators. 4.2. External examiners recruitment is helpful for verifying students' performance.

5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. Recruitment of external peer reviews to review teaching material for students and to suggest any improvements.

Faculty or Teaching Staff:

Faculty or Teaching Staff	Post
Dr. Hala Ahmed Abuel-Ela	Head of Periodontology Division
Dr .EmanAbd El-SattarTella	Professorof Periodontology **(Course Coordinator)**
Dr .Alaa Mustafa Atia	Associate Professor of Periodontology
Dr .Salwa al Dahlawi	Assistant Professor of Periodontology
Dr. Ahmed Dardir	Assistant Professorof Periodontology
Dr. Dania el angary	Lecturerof Periodontology
Dr Ehab Azeb	Assistant Professorof Periodontology
Dr.Khaled Al-Ashiry	Professor of Oral Radiology
Dr. Huda Fansa	Assistant Professor of Oral Biology
Dr. EbtesamKamel	Professor of Microbiology
Dr. Sherif Said	Assistant Professor of Oral Biology
Dr.Abdel RahmanSabry	Assist. Prof. of Microbiology

Date Report Completed:

Received by: _____

Head of Department of Basic & Clinical Oral Sciences

Signature: _____ Date: _____