Republic of Yemen

Ministry of Higher Education & Scientific Research

Emirates International University

Faculty of Dentistry

Department of Oral Surgery

Doctor of Dental Surgery

Course Specification of

Oral Radiology II

Course No. (------)

Review committee:

Head of the Department

Quality Assurance head

Dean of Faculty

I. Course Identification and General Information:

1	**Course Title:**	Oral Radiology II			
2	**Course Code & Number:**	----			
3	**Credit Hours:**	**Credit Hours**	**Theory Hours**		**Lab. Hours**
			Lecture	**Exercise**	
		3	2	-	2
4	**Study Level/ Semester at which this Course is offered:**	3th Level / 1st Semester			
5	**Pre –Requisite (if any):**	Oral Radiology 1			
6	**Co –Requisite (if any):**	None			
7	**Program (s) in which the Course is Offered:**	Doctor of Dental Surgery			
8	**Language of Teaching the Course:**	English			
9	**Study System:**	Semester based System			
10	**Mode of Delivery:**	Full Time			
11	**Location of Teaching the Course:**	Faculty of Dentistry			
12	**Prepared by:**	Dr. Manal Mohammed Al-Hajri			

II. Course Description:

This course of dental radiology is mandatory as it offers the way of examining the hidden parts of teeth and their supporting structures. It also includes radiographic interpretation of various pathological lesions that aid in diagnosis treatment planning and management of patients. It also includes extraoral radiographic projections and advanced imaging modalities.

III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs Learning out of program		
A. Knowledge and Understanding:		**I, A or E**		
a1	Identify the basic characteristics of ionizing radiation and production of X-rays, and understand the biological effects of ionizing radiation on the molecular, cellular, tissue and organ levels with concentration on the hazardous effects of ionizing radiation on the oral and para- oral structures		A6	
a2	Understand the principles of image production and characteristics of radiographic images, master the processing of the exposed films in order to produce good quality diagnostic radiographs, understand well the interaction between the film and the processing solutions and identify common causes of faulty or unsatisfactory radiographs.		A6	
a3	knowledge radiopaque and radiolucent normal anatomical landmarks on the intra and extra-oral radiographs.		A6	
B. Intellectual Skills:				
b1	Interpret the procedural, technical and processing errors that might arise during radiographic imaging.		B2	
b2	Correlate the clinical and radiographic data to properly diagnose the dental and periodontal problems.		B1	
C. Professional and Practical Skills:				
c1	Practice adequate measures for radiation protection of the patient, dental staff and		C3	

	people in the immediate environment.			
c2	Demonstrate the ability to recognize the radiological landmarks on the periapical, occlusal and extraoral radiographs		C3	
c3	Practice accurate and high quality processing procedure of the exposed films in order to produce good quality diagnostic radiographs.		C7	
c4	Apply standardized techniques for acquiring good quality intra oral radiographs, namely periapical, bitewing and occlusal.		C7	
	D. Transferable Skills:			
d1	Develop Excellent Communication skills with wide range of individuals.		D3	
d2	Understanding for radiation safety rules.		D2	

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Identify the basic characteristics of ionizing radiation and production of X-rays, and understand the biological effects of ionizing radiation on the molecular, cellular, tissue and organ levels with concentration on the hazardous effects of ionizing radiation on the oral and para- oral structures	Lectures Discussion	Midterm Exam Final Exam
a2	Understand the principles of image production and characteristics of radiographic images, master the processing of the exposed films in order to produce good quality diagnostic radiographs, understand well the interaction between the film and the processing solutions	Lectures Discussion	Midterm Exam Final Exam

	and identify common causes of faulty or unsatisfactory radiographs.		
a3	knowledge radiopaque and radiolucent normal anatomical landmarks on the intra and extra-oral radiographs.	Lectures Discussion	Midterm Exam Final Exam

B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:

Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
B1	Interpret the procedural, technical and processing errors that might arise during radiographic imaging.	Lectures exercise Debate	Midterm Exam Final Exam Homework
B2	Correlate the clinical and radiographic data to properly diagnose the dental and periodontal problems.	Lectures exercise Debate	Midterm Exam Final Exam Homework

(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:

Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
c1	Practice adequate measures for radiation protection of the patient, dental staff and people in the immediate environment.	Exercise Debate	Practical Exam Semester Work
C2	Demonstrate the ability to recognize the radiological landmarks on the periapical, occlusal and extraoral radiographs	Exercise Debate	Practical Exam Semester Work
C3	Practice accurate and high quality processing procedure of the exposed films in order to produce good quality diagnostic radiographs.	Exercise Debate	Practical Exam Semester Work
C4	Apply standardized techniques for acquiring good quality intra oral radiographs, namely periapical,	Exercise Debate	Practical Exam Semester Work

	bitewing and occlusal.		

(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Develop Excellent Communication skills with wide range of individuals.	Exercise Discussion Brainstorming Debate	Practical Exam Homework Semester Work
d2	Understanding for radiation safety rules.	Exercise Discussion Brainstorming Debate	Practical Exam Homework Semester Work

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Advanced imagiology	• Introduction • types	1st-3rd	6	a1,2,3,b1,2
2	Digital radiology	• types • techniques	4th-6th	6	a1,2,3,b1,2
3	Principles of radiographic interpretation part I	• **intraoral**	7th	2	a2,3,b1,2
4	**Midterm exam**		8th	2	a1,2,3,b1,2
5	Principles of radiographic interpretation part II	• **extraoral**	9th	2	a2,3,b1,2
6	Dental anomalies	• **types**	10th-11th	4	a1,2,3,b1,2
7	Inflammatory lesions of the jaw	Hard and soft tissue	12th	2	a2,3,b1,2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
8	Cysts	Odontogenic nonodontogenic	13th	2	a2,3,b1,2
9	Benign tumors	Odontogenic nonodontogenic	14th	2	a2,3,b1,2
10	Malignant tumors	Types techniques	15th	2	a2,3,b1,2
11	**Final exam**		16th	2	a1,2,3,b1,2
Number of Weeks /and Units Per Semester			**16**	**32**	

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
1	• **Training entails of digital radiology** • **Training entails of advanced imaging** • **Recognize the radiological landmarks of dental anomalies** • **Recognize the radiological landmarks of inflammatory lesions of the jaw** • **Recognize the radiological landmarks of cysts** • **Recognize the radiological landmarks of benign tumors** • **Recognize the radiological landmarks of malignant tumors**	1st - 13th	26	c1,2,3,4, d1,2
2	**Practical exam**	14th	2	c1,2,3,4, d1,2
Number of Weeks /and Units Per Semester		**14**	**28**	

V. Teaching Strategies of the Course:

- Lectures
- exercise
- Debate
- Training
- Discussion
- Brainstorming

VI. Assessment Methods of the Course:

- Midterm Exam
- Final Exam
- Practical Exam
- Semester Work

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Requirements	1st- 13th	10	c1,2,3,4, d1,2
Total			10	

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Mid tem exam	8th	20	20%	a1,2,3,b1,2
2	Final tem exam	16th	50	50%	a1,2,3,b1,2
3	Practical exam	14th	20	20%	c1,2,3,4, d1,2
4	Assignment	1st- 13th	10	10%	c1,2,3,4, d1,2
Total			100	100%	

IX. Learning Resources:

1- Required Textbook(s) (maximum two):

- Eric Whaites, Nicholas Drage, 2013, Essentials of dental Radiography and Radiology. 5th Edition, Churchill Livingstone

- Essential References:

White SC, Pharoah MJ, 2013, Oral Radiology: Principles and Interpretation, 7th Edition, Mosby.

- Electronic Materials and Web Sites etc.:

www.joomr.org

	X. Course Policies: (Based on the Uniform Students' By law (2007)
1	**Class Attendance:** Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	**Tardiness:** A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	**Exam Attendance/Punctuality:** No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	**Assignments & Projects:** Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	**Cheating:** Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	**Forgery and Impersonation:** Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	**Other policies:** The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Faculty of Dentistry

Department of Oral Surgery

Doctor of Dental Surgery

Course Plan (Syllabus) of Oral Radiology II

Course No. (----------)

I. Information about Faculty Member Responsible for the Course:								
Name of Faculty Member:	Dr. Manal Mohammed Al-Hajri	**Office Hours**						
Location& Telephone No.:	00967776136858							
E-mail:	dent.manal@yahoo.com	SAT	SUN	MON	TUE	WED	THU	

II. Course Identification and General Information:

1	**Course Title:**	Oral Radiology II			
2	**Course Code & Number:**	----			
3	**Credit Hours:**	**Credit Hours**	**Theory Hours**		**Lab. Hours**
			Lecture	**Exercise**	
		3	2	-	2
4	**Study Level/ Semester at which this Course is offered:**	3th Level / 1st Semester			
5	**Pre –Requisite (if any):**	Oral Radiology 1			
6	**Co –Requisite (if any):**	None			
7	**Program (s) in which the Course is Offered:**	Doctor of Dental Surgery			
8	**Language of Teaching the Course:**	English			
9	**Study System:**	Semester based System			
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12	**Prepared by:**	Dr. Manal Mohammed Al-Hajri			

III. Course Description:

This course of dental radiology is mandatory as it offers the way of examining the hidden parts of teeth and their supporting structures. It also includes radiographic interpretation of various pathological lesions that aid in diagnosis treatment planning and management of patients. It also includes extraoral radiographic projections and advanced imaging modalities.

IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

	A. **Knowledge and Understanding:**
a1	Identify the basic characteristics of ionizing radiation and production of X-rays, and understand the biological effects of ionizing radiation on the molecular, cellular, tissue and organ levels with concentration on the hazardous effects of ionizing radiation on the oral and para- oral structures
a2	Understand the principles of image production and characteristics of radiographic images, master the processing of the exposed films in order to produce good quality diagnostic radiographs, understand well the interaction between the film and the processing solutions and identify common causes of faulty or unsatisfactory radiographs.
a3	knowledge radiopaque and radiolucent normal anatomical landmarks on the intra and extra-oral radiographs.
	B. Intellectual Skills:
b1	Interpret the procedural, technical and processing errors that might arise during radiographic imaging.
b2	Correlate the clinical and radiographic data to properly diagnose the dental and periodontal problems.
	C. Professional and Practical Skills:
c1	Practice adequate measures for radiation protection of the patient, dental staff and people in the immediate environment.
c2	Demonstrate the ability to recognize the radiological landmarks on the periapical, occlusal and extraoral radiographs
c3	Practice accurate and high quality processing procedure of the exposed films in order to produce good quality diagnostic radiographs.
c4	Apply standardized techniques for acquiring good quality intra oral radiographs, namely periapical, bitewing and occlusal.
	D. Transferable Skills:
d1	Develop Excellent Communication skills with wide range of individuals.
d2	Understanding for radiation safety rules.

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Advanced imagiology	• Introduction • types	1st-3rd	6
2	Digital radiology	• types • techniques	4th-6th	6
3	Principles of radiographic interpretation part I	• **intraoral**	7th	2
4	**Midterm exam**		8th	2
5	Principles of radiographic interpretation part II	• **extraoral**	9th	2
6	Dental anomalies	• **types**	10th-11th	4
7	Inflammatory lesions of the jaw	Hard and soft tissue	12th	2
8	Cysts	Odontogenic nonodontogenic	13th	2
9	Benign tumors	Odontogenic nonodontogenic	14th	2
10	Malignant tumors	Types techniques	15th	2
11	**Final practical exam**		16th	2
	Number of Weeks /and Units Per Semester		**16**	**32**

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours
1	• **Training entails of digital radiology** • **Training entails of advanced imaging** • **Recognize the radiological landmarks of dental anomalies** • **Recognize the radiological landmarks of inflammatory lesions of the jaw**	1st -13th	26

B. Case Studies and Practical Aspect:			
No.	**Tasks/ Experiments**	**Week Due**	**Contact Hours**
	• Recognize the radiological landmarks of cysts • Recognize the radiological landmarks of benign tumors • Recognize the radiological landmarks of malignant tumors		
2	Final practical exam	14th	2
Number of Weeks /and Units Per Semester		**14**	**28**

VI. Teaching Strategies of the Course:

- Lectures
- exercise
- Debate
- Training
- Discussion
- Brainstorming

VII. Assessment Methods of the Course:

- Midterm Exam
- Final Exam
- Practical Exam
- Semester Work

VIII. Assignments:

No.	Assignments	Week Due	Mark
1	Requirements	1st- 13th	10
Total			**10**

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Mid tem exam	8th	20	20%
2	Final tem exam	16th	50	50%
3	Practical exam	14th	20	20%
4	Assignment	1st- 13th	10	10%
Total			100	100%

X. Learning Resources:

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- Essential References:

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