

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	General Radiology
Course number	DENT3139
Faculty	
Department	
Course type	College Needs
Course level	3
Credit hours (theoretical)	1
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 -	To know the biologic effect of radiation
2 -	To know the principles and technique of imaging
3 -	To know the basic of intraoral and extraoral radiographic technique

Intended Learning Outcomes

Knowledge and Understanding	<ul style="list-style-type: none"> * To know the basic of intraoral and extraoral radiographic technique * Know how x-rays are produced * List and describe the different types of intra-oral and extra-oral x-ray films used in dentistry including their sizes, speeds as well as how to store them properly. * Know what is required to produce an ideal radiographic image and identify the quality of x-ray image regarding the radiographic density, contrast, sharpness, magnification and distortion.
Intellectual Skills	<ul style="list-style-type: none"> * Understand and practice the step-by-step procedures for both manual and automatic film processing. * Identify the anatomical landmarks as seen in radiographs, distinguish between abnormalities and normal variations.
Professional Skills	<ul style="list-style-type: none"> * . Discuss the harmful effects of radiation, both the short and long-term effects, whether they are somatic or genetic. * know how to locate the anatomical landmrks in the radiograph
General Skill	<ul style="list-style-type: none"> * kow how to evaluate the radiograph

Course Contents

- 1 - Radiology Physics
- 2 - Radiobiology
- 3 - Dental Films and screens
- 4 - Intraoral radiology techniques
- 5 - Normal intraoral Radiologic landmarks
- 6 - Processing technique
- 7 - Errors Factors Affecting Image Quality
- 8 - Panoramic radiography
- 9 - Radiographic Interpretation of Periodontal Diseases

Teaching and Learning Methods

- 1 - lectures
- 2 - powerpoint slides
- 3 - assignments
- 4 - discussion

Teaching and Learning Methods for the Disabled Students

- 1 - powerpoint
- 2 - video tapes

Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
mid- term exam	الاسبوع السابع	30
assignments	الاسبوع العاشر	20
final exam	الاسبوع الخامس عشر	50

Books and References

Recommended books	Oral Radiology	2009	Stuart C. White Elsevier
	Essential of dental radiograph and radiology	2013	Eric Whaites Elsevier

Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
Radiology Physics	1st week	know the physical rules related to the radiology know how would the x -ray produced	realize the essential information about x- ray and radiology science	have a clear idea about radiology science and its application	have the ability to understand the basic uses of radiology in medicine
Radiobiology	2nd week	know the Mechanisms, theories, sequence know Ionization and Ionizing radiatio	know Dose-response curve	Radiological effects on different body tissues	Risk vs. benefits of dental radio graphs
Dental Films and screens	3rd week	know the basic component of dental films and screens	understand the mechanism of action of dental films	realize the mechanisim of radiograph formation	
Intraoral radiology techniques	4th week	know the different intraoral radiology techniques	dffrentiate between the different techniques	Periapical paralleling technique. Periapical Bisecting-angle technique Bitewing technique. Occlusal Technique.	know the usage of each technique
Normal intraoral Radiologic landmarks	5th week	know the anatomical land mark of the oral cavity and its appearance in the radiograph	know the anatomical landmarks In bisecting angle technique In bitewing and occlusal techniques	differentiate between the pathological and anatomical land marks in the radiograph	
Processing technique	6th week	know the different Processing solutions	understand the technique of processing in detils	realize the Processing errors	differentiate between Manual and automatic processing
Errors	8th week	know the Factors Affecting Image Quality	understand the errors of the radiograph and its relation to the misdiagnosis	know the errors results from Exposure and technique defects	
Panoramic radiography	9th week	know Panoramic basics and technique know Panoramic normal landmarks	understand the basic importance in the dental field	know Panoramic Errors	

