Course Specifications

General Information

Course name	Introduction to Radiologic Science
Course number	AMSR2351
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - at the end of this course, the student will have aknowledge about the different type of energy.
2 - the student will learn the how does the x-ray was discovered.
3 - the student will know the dual concept of electromagnetic radiation
4 - the student will learn the basic principle of electromagnetism
5 - the student will know the different type of imaging modalities

Intended Learning Outcomes

Knowledge and Understanding

* at the end of this course the student will know the different type of enregy and electromagnetic radiation
* the student will know table to differentiate between generator, motor, and capacitor
* the student will have an idea about different imaging equipments
* the student will know the different type of contrast media

Course Contents

1 - basic concept of radiation
2 - different type of energy
3 - how to form magnet
4 - production of x-ray
5 - x-ray interaction with matter
6 - principle of us
7 - principle of ct
8 - principle of mri
9 - contrat media

Teaching and Learning Methods

1 - lectures and problem solution
2 - lecuters and seminars

Teaching and Learning Methods for the Disabled Students

1 - electronic lectures

Students Assessment

Assessment Method	TIME	MARKS
homeworks and presentations	all the semsester	30
midterm exam	the seventh week	30
final exam	at the end of the semster	40

Books and References

Course note	introduction to radiological sciences
	essentials of radiologic sciences

Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
enregy types, electromagnetism, x-ray production, and x-ray interaction with matter. basic principle of us, ct, and mri	14 weeks	discussion of energy, electromagnetis m, discoery and production of x-ray, an idea of ct, mri, and us	at the end of this course, the studen will have a good idea about different imaging modalities.	the student will have a good background about different imaging modalities, electromagnetism and production of x-ray	the student will have a good background about physivs required to radiographic machine, and different imaging modaliited of medical imaging