Course Specifications

General Information

Course name	Physics of Magnetic Resonance
Course number	AMSR4394
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - . understand the generation of CT scanner
2 - be able to understand the physical principle of hardware components of CT scanner
3 - be able to describe the process of data acquisition
4 - understand the process of image reconstruction and image formation
5 - be able to describe the image quality factors and image artifacts and how to resolve it

Intended Learning Outcomes

Knowledge and Understanding

* know the main component of CT haedeware
* explain the component of data acquisition system and image reconstruction and display
* be phenomenon with main types of CT artifacts and how to resolve it
* be familiar with main image parameters that affect CT SNR, CNR

Course Contents

1 - histroy of CT scanner generation
2 - data acquistion system
3 - components of CT machine
4 - image reconstruction techniques
5 - image qulaity
6 - image artifacts
7 - application of CT imaging

Teaching and Learning Methods

1 - lectures, seminars, presentation, assignments

Teaching and Learning Methods for the Disabled Students

1 - online lectures, recording lectures, assignments, presentation

Students Assessment

Assessment Method	TIME	MARKS
mid term exam	mid of semester	30
final exam	at the end of semester	40
assignments	during the semester	30