A brief Course Description			
Course Name	Human Anatomy and Physiology -2		
Course Code	HRS 113		
College	Health and Rehabilitation Sciences		
Department/ Program	Radiological Sciences Department/ Ultrasound Program		
Year / Level:	2nd year, 4th level		
Credit Hours	3(2.1.0)		
Contact Hours	Lecture: 2	Lab/Tutorial: 2	Training: 0
Language	English		
Track	College Requirement		
Pre-requisites Course:	HRS112		
Co-Requests:	None		
Course Objectives:	At the end of the course, students should be able to: identify the location of anatomical structures and anatomical parts of the human body by using directional and orientation terms and on radiographic images and models, acquire knowledge of the Structure and functions of all the systems of the body.		

A brief Course Description			
Course Name	Radiation Biology		
Course Code	RAD 221		
College	Health and Rehabilitation Sciences		
Department/ Program	Radiological Sciences Department/ Ultrasound Program		
Year / Level:	2nd year, 4th level		
Credit Hours	2 (2.0.0)		
Contact Hours	Lecture: 2	Lab/Tutorial: 0	Training: 0
Language	English		
Track	Department Requirement		
Pre-requisites Course:	HRS 112, RAD211		
Co-Requests:	None		
Course Objectives:	At the end of the course, the student should be able to explain the principles of radiation biology and compare these with the principles of cellular biology. Compare and contrast somatic and genetic effects of radiation. Describe radiolysis of water related to target theory and radiation-induced intracellular chemical reaction. Apply the principles of radiobiology to tumor cell biology and evaluate radiation effects anticipated in the clinical practice of radiation therapy. Explain the relationship of time, dose, fractionation, volume and site and radiation effects .Explain and interpret factors affecting RBE, cell cycle and cell death .Categorize the systemic responses to radiation with respect to varying tolerance of differing organs and systems including hematological system and skin .Describe in detail the 4R's of radiobiology and the concept of TD 50/5 and 5/5.		

A brief Course Description			
Course Name	Computed Tomography		
Course Code	RAD 222		
College	Health and Rehabilitation Sciences		
Department/ Program	Radiological Sciences Department/ Ultrasound Program		
Year / Level:	2nd year, 4th level		
Credit Hours	3 (2.1.0)		
Contact Hours	Lecture: 2	Lab/Tutorial: 1	Training: 0
Language	English		
Track	Department Requirement		
Pre-requisites Course:	RAD 211- RAD 212		
Co-Requests:	None		
Course Objectives:	By the end of the course, students are expected to: Outline the CT principles, instrumentation, and applications. Identify CT scanner structure, image formation, image processing, and CT safety. Apply the CT protocols safety procedures in medical cases. Express and explain the main difference between CT generations. State the principles of X-ray tube and CT detectors in different CT generations.		

A brief Course Description			
Course Name	Pathology		
Course Code	RAD 223		
College	Health and Rehabilitation Sciences		
Department/ Program	Radiological Sciences Department/ Ultrasound Program		
Year / Level:	2nd year, 4th level		
Credit Hours	2 (2.0.0)		
Contact Hours	Lecture: 2	Lab/Tutorial: 0	Training: 0
Language	English		
Track	Department Requirement		
Pre-requisites Course:	HRS 112		
Co-Requests:	None		
Course Objectives:	The course aims to provide the students with the general concept of introduction to pathology. That will be discussed with appropriate reference to the general pathologic process due to cellular stress, review of the basics of the commonest diseases with adequate insight into cell injury and cell death, acute and chronic inflammation, disorders of growth and development, ageing as well as neoplasia.		

A brief Course Description			
Course Name	Basic Radiographic Techniques		
Course Code	RDI 221		
College	College of Health and Rehabilitation Science		
Department/ Program	Radiological Sciences / Diagnostic Imaging		
Year / Level:	2nd Year / 2nd Semester		
Credit Hours	2+2+0=4		
Contact Hours	**Lecture:** 30	**Lab/Tutorial** 30	**Training:**
Language	English		
Track	Department Requirement		
Pre-requisites Course:	RAD211 - Introduction to Radiation Physics HRS 112 - Human Anatomy and Physiology (1)		
Co-Requests:	None		
Course Objectives:	❖ **At the end of the course, the student will have a basic knowledge of:** • Radiographic and photographic terms relating to image quality and their main influencing factors are reviewed. • The production and attenuation of X-rays as related to the photographic process and the general principles of image formation in digital radiography. • How to conduct the routine basic radiology examination according to the need of the procedures of acutely ill patient • X-ray machines equipment. • How to setup the patient and the scanners for basic procedures. • The material required to convert the radiological image (invisible) into a radiographic image (visible). ❖ **Upon successful completion, the student will be able to:** • Understand the technical aspects of performing the radiographic examinations & image processing. • Modify radiographic techniques according to situation.		

A brief Course Description			
Course Name	Clinical Practicum (I)		
Course Code	RDI 222		
College	College of health and rehabilitation science		
Department/ Program	Radiological Sciences Dept. (Diagnostic Imaging)		
Year / Level:	2nd year 2nd semester		
Credit Hours	0 + 0 + 2 = 2		
Contact Hours	**Lecture: 0**	**Lab/Tutorial: NA**	**Training:96**
Language	**English**		
Track	Department Requirement		
Pre-requisites Course:	RAD211 Introduction To Radiological Physics./ HRS112 Human Anatomy and Physiology (1)		
Co-Requests:	**None**		
Course Objectives:	- Experience from the learning acquired during the previous CT modules - Application of clinical experience in real clinical situation - Experience of CT procedures according to the need of clinical data for the patient under supervision and guidance of qualified radiologic technologist - Continuous practicing CT application for encasing knowledge and experiences		