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	Ultrasound Physics (I)		
Course Code	RUS 221		
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	Program Requirement		
Pre-requisites Course:	RAD 211		
Co-Requests:	None		
Course Objectives:	By the end of the course, the student will be able to gain the basic knowledge on ultrasound physics and effectively communicate and interpret diagnostic sonographic measurements, describe the basic properties of ultrasound waves, list the types of ultrasonic transducers, explain the pulse-echo technique used to form sonographic images, describe digital image processing, storage, and display techniques, state the different types of imaging modalities.		

A brief Course Description			
Course Name	Abdominal Sonography and Procedures		
Course Code	RUS 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: 2	Training: 0
Language	English		
Track	Program Requirement		
Pre-requisites Course:	RAD 211- RAD 212		
Co-Requests:	None		
Course Objectives:	Upon successful completion, the student will be able to: gain the basic knowledge on the normal ultrasound anatomy of various abdominal organs, describe scanning protocols and patient preparation for abdominal sonograms. Also, the students will be able to evaluate images using sonographic terminology.		