

Branch Name:	B.Sc R&IT
Program Code:	AS102
Course Title:	Contrast Media & Special Radiological Procedures
Course Code:	1AS1020301
Pre-requisite Course:	

Course Objectives:

1. Contrast & Special Radiological Procedures are diagnostic procedures usually performed by giving contrast through oral or intravenous to diagnose the disease.
2. These imaging procedures are done under the guided of fluoroscopy or c-ram equipment.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	-	6	7	50	50	25	25	150

Course Contents:

Unit No	Topic	Total Hours
I	Introduction: General approach to Special Radiographic procedures, Responsibility of Radiology Technologist during radiological procedures, Preparation of patient for different procedures, Room layout in interventional radiology and fluoroscopy. Contrast Media: Positive and Negative, Ionic & Non Ionic, Adverse Reactions to contrast media and patient management. Emergency Equipment in the Radiology Department	8
II	Gastro Intestinal Tract: Barium Swallow; Barium Meal - Single and Double Contrast; Barium Meal Follow Through; Small Bowel Enema (Enteroclysis); Barium Enema - Gastrograffin Enema; Loopogram Biliary Tract: Oral & Intravenous Cholecystography; Percutaneous Transhepatic Cholangiography; Percutaneous Transhepatic Biliary Drainage; Endoscopic Retrograde Cholangiopancreatography	10
III	Urinary System: IVU (Intravenous Urography), Retrograde Pyeloureterography (RGU), Micturating Cysto Urethrography, Ascending Urethrography Reproductive System: HysteroSalpingogram, FTR (Fallopian Tube Recanalization)	8
IV	Central Nervous System: Cervical Myelography – Cisternal Puncture and Lateral Cervical Puncture, Lumbar Myelography, Myelography with water soluble and oily contrast media Respiratory System: Bronchography, Percutaneous Lung Biopsy Other procedures in radiology: Arthrography, Sialography, Lymphography, Sinography & Fistulography, Dacryocystography, Embolization & embolic agents	10

Unit No	Topic	Total Hours
I	General approach to special radiographic procedures, responsibility of radiology technologist during radiological procedures Contrast media and their adverse reactions to contrast media and patient management	25
II	Procedures for gastrointestinal tract including barium studies Procedures for biliary tract	29
III	Procedures for urinary system and reproductive system	29
IV	Procedures for central nervous system and respiratory system	25

Text Books/ Reference Books:

1. Radiographic Imaging – by I.C.R.P. Bhushan and Lakkhar – CBS Publishers
2. A Guide to Radiological Procedures – by Chapman – Elsevier

Course Learning Outcomes (CLO):

- 1 Prepare management and positioning of patients while performing radiological procedures.
- 2: Correlate of indications, contraindications, contrast media, radiation dose, exposure timing and radiation safety measures for different radiological procedures.
- 3: Understand the patient preparations needed before any radiological examination.
- 4: Generalize knowledge of post procedural care.
- 5: Students will be able position the patients for radiological procedures.
- 6: Knowledge of image quality in radiological images.
- 7: Management of patients in radiology department for various procedures.
- 8: Ability to handle emergency situations in radiology department.
- 9: Precautions and care required in interventional suits.