



**Hindi Vidya Prachar Samiti's**

**Ramniranjan Jhunjhunwala College**

**of Arts, Science & Commerce**

***(Empowered Autonomous College)***

**Affiliated to**

**UNIVERSITY OF MUMBAI**

**Syllabus for the B.Sc.**

**Program: B.Sc. Medical Imaging Technology**

**Program Code: RJSUMIT**

**National Education Policy (NEP 2020)**

SEMESTER	:	<b>III</b>
TITLE	:	<b>MAJOR THEORY 1</b>
TITLE OF THE SUBJECT/COURSE	:	Computed Tomography I
COURSE CODE	:	RJMAJMIT311
CREDITS	:	03
DURATION	:	45 hrs

LEARNING OBJECTIVES	
1	To understand the physics components of CT.
2	To understand the working principle of CT equipment's.

Course Outcome No.	On completing the course, the student will be able to:	PSO Addressed	Bloom's Levels
CO1	Perform basic techniques in CT.	1, 3	BT level 1 & 2
CO2	Understand equipment s working and performance.	1, 3	BT level 1 & 2
CO3	Understanding the scan parameters.	1, 3	BT level 1 & 2

SEMESTER III			
Course Code : RJMAJMIT311		Title: Computed Tomography I	Credits
Unit	Unit Name	Topics	3
I	Technical skills	CT image quality, digitization, quantization, sampling, pixel, voxel, image formation, CT gantry, global operations, local operations, point operations., ADC, DAC, PMT.	2
II	Recent technologies	3D technology, 4D imaging, Post processing techniques, Spiral techniques	1
<b>References:</b> Textbook of Radiology for CT and MRI Technician - Sachin Khanduri			

SEMESTER	:	<b>III</b>
TITLE	:	<b>MAJOR THEORY 2</b>
TITLE OF THE SUBJECT/COURSE	:	Computed Tomography II
COURSE CODE	:	RJMAJMIT312
CREDITS	:	03
DURATION	:	45 hrs

LEARNING OBJECTIVES	
1	To understand the various scanning techniques.
2	To understand pre-procedural techniques and post procedural techniques.
3	To understand different pathological procedures.

Course Outcome No.	On completing the course, the student will be able to:	PSO Addressed	Bloom's Levels
CO1	Learn the various scans (plain and contrast)	1, 2	BT level 1 & 2
CO2	To learn pre procedural steps, contrast media parameters.	1, 2	BT level 1, 2 & 3
CO3	To distinguish pathologies in scan.	1, 2	BT level 1, 2 & 3

SEMESTER III			
<b>Course Code :</b> RJMAJMIT312		<b>Title: Computed Tomography II</b>	<b>Credits</b>
<b>Unit</b>	<b>Unit Name</b>	<b>Topics</b>	<b>3</b>
I	Clinical skills	HRCT Chest CT Brain, CT Abdomen Pelvis, CT IVU, CT Joints	1.5
II	Diseases and disorders	Benign and malignant tumour, aneurysm, blockages, stroke, fractures, dislocations, etc.	1.5
<b>References:</b> Textbook of Radiology for CT and MRI Technician - Sachin Khanduri			