

ACA-R-05

Date:23/07/2018

LESSON PLAN

Subject : Electrotherapy I
Class : BPT I (SEMESTER- I)
Class In-charge : Dr. Priti Lendghar (PT)
Subject Teachers : Dr. Priti Lendghar (PT), Dr Joanna Baptist
Total Hours prescribed:- 176 (Theory =-80, Practical-96)

Sr. No.	Topic	No. of teaching hours		Mode of teaching	Name of Staff	Remarks	
		Th	Pr				
1	BIOELECTRONICS <ul style="list-style-type: none"> • Structure and properties of matter solids, liquids and gases, adhesion, surface tension • Viscosity, density and elasticity • Structure of atom, molecules, elements and compounds. • Electron theory, static and current electricity • Conductors, Insulators, Potential difference, Resistance & Intensity • Ohm's Law – Its application to AC & DC currents. • Rectifying Devices – Thermionic Valves, Semiconductors, Transistors, • Amplifiers, Transducers Oscillator circuits • Capacitance, condensers in DC and AC Circuits. • Display devices & indicators – analogue & digital. • Effects of Current Electricity: • Chemical effects - Ions and electrolytes, Ionisation, Production of a E.M.F. by chemical actions. • Magnetic effects, Molecular theory of Magnetism, Magnetic fields, Electromagnetic Induction, eddy currents, • Mili ammeter and Voltmeter, Transformers and Choke Coil. Thermal Effects – Joule's Law and Heat production • Physical Principles of sound and its properties. • Physical Principles of light and its properties. • Electromagnetic spectrum – biophysical application. • Laws of Transmission- reflection, refraction, absorption, attenuation 	30	16	Power Point Presentation	Dr.Priti Lendghar		
		2	1	Power Point Presentation			
		1	1	Power Point Presentation			
		2		Power Point Presentation			
		1	1	Power Point Presentation			
		2	2	Power Point Presentation			
		2		Power Point Presentation			
		2	2	Power Point Presentation			
		2		Power Point Presentation	Dr.Joanna Baptist		
		1	1	Power Point Presentation			
		1		Power Point Presentation			
		2		Power Point Presentation			
		2	1	Power Point Presentation			
		2	1	Power Point Presentation		Dr.Priti Lendghar	
		1	1	Power Point Presentation			
		2	1	Power Point Presentation			
				1	1	Black board Teaching	
		1	1	Power Point Presentation			
		1	1	Power Point Presentation			

2.	ELECTRIC SUPPLY	5	-	Power Point Presentation	Dr.Priti Lendghar
	• Brief outline of main supply of electric current.	1	-	Power Point Presentation	
	• Dangers – short circuits, electric shocks.	2	-	Power Point Presentation	
	• Precautions – safety devices, earthing, fuses etc.	1	-	Power Point Presentation	
	First aid & initial management of electric shock	1	-	Power Point Presentation	
3	THERMO & ACTINOTHERAPY	23	32	Power Point Presentation	Dr.Joanna Baptist
	• Physiological responses to heat gain or loss on various tissues of the body.	2	2	Power Point Presentation	
	• Therapeutic effects of heat, cold	2	2	Power Point Presentation	
	• Physical principles of Electro – magnetic radiation.	2	2	Power Point Presentation	
	• Physics of sound including characteristics and propagation.	2	2	Power Point Presentation	Dr.Priti Lendghar
	• Therapeutic cold (Cryotherapy)– Sources, biophysical effects, types, therapeutic effects,	3	4	Power Point Presentation	
	• Indications, contraindications, precautions, application techniques and patient preparation.	2	2	Power Point Presentation	
	Thermotherapy modalities: paraffin wax bath, contrast bath, whirl pool bath, moist heat therapy:	3	4	Power Point Presentation	
	principles of application, mode of application, therapeutic uses, indication and contraindication	2	4	Power Point Presentation	
	• Infra red rays – Wavelength, frequency, types & sources of IRR generation, techniques of irradiation,	2	4	Power Point Presentation	
	• physiological & therapeutic effects, indications, contraindications, precautions,	1	2	Power Point Presentation	
	• Operational skills of equipment & patient preparation.	1	2	Power Point Presentation	
	• Home remedies of heat and cold	1	2	Power Point Presentation	
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4	HIGH FREQUENCY CURRENTS AND WAVES	15	35	Power Point Presentation	Dr.Joanna Baptist
	• High frequency currents (S.W.D.)	8	17	Power Point Presentation	
	Production	1	2	Power Point Presentation	
	biophysical effects, types	1	2	Power Point Presentation	
	therapeutic effects	1	2	Power Point Presentation	
	techniques of application	1	3	Power Point Presentation	Dr.Priti Lendghar
	indications	1	2	Power Point Presentation	
	contraindications	1	2	Power Point Presentation	
	precautions	1	2	Power Point Presentation	
	Operational skills and patient preparation	1	2	Power Point Presentation	
	High frequency sound waves (Ultrasound)	7	18	Power Point Presentation	Dr.Joanna Baptist
	Production	1	2	Power Point Presentation	
	biophysical effects, types	1	2	Power Point Presentation	
	therapeutic effects	1	2	Power Point Presentation	
	techniques of application	1	4	Power Point Presentation	
Indications, contraindications	1	3	Power Point Presentation	Dr.Priti Lendghar	

	precautions	1	2	Power Point Presentation		
	Operational skills and patient preparation.	1	3	Power Point Presentation		
5	TRACTION	5	13	Power Point Presentation		
	Principles of traction, classification, types	1	3	Power Point Presentation	Dr.Joanna Baptist	
	• Physiological & therapeutic effects	1	2	Power Point Presentation		
	• Indications, contraindications	1	2	Power Point Presentation	Dr.Priti Lendghar	
	• Techniques of application	1	4	Power Point Presentation		
	• Operational skills & precautions	1	2	Power Point Presentation		
11	Long Wave Diathermy	1	-	Power Point Presentation	Dr.Joanna Baptist	
12	Matrix Rhythm Therapy	1	-	Power Point Presentation	Dr.Priti Lendghar	