# STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

# (BPT - I YEAR/ I SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



# INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

### Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow



# DEPARTMENT OF PHYSIOTHERAPY INTEGRAL UNIVERSITY, LUCKNOW

## **STUDY & EVALUATION SCHEME**

# PROGRAM: BACHELOR OF PHYSIOTHERAPY (BPT)

	I – Yea	r			_				_		I-Sem	ester				
					Periods			Credits		Eva	luation	Schem	e			
S. No	Course Category	Code No.	Code No.			Name	of the Course					Sessional		(CA)		Subject
NO				L	т	Р	с	СТ	ТА	Total	ESE	Total				
				I -	Sem	este	r									
1.	DC	PT101	Human	Anatomy-I	3	1	0	4	40	20	60	40*	100			
2.	DC	PT102	Human	Physiology-I	3	1	0	4	40	20	60	40	100			
3	DC	PT103	Biochem	iistry	3	1	0	4	40	20	60	40	100			
4.	DC	PT104	Basic of	Electrotherapy	3	1	0	4	40	20	60	40	100			
5.	DC	CS107	Comput Physioth	2	1	2	3	40	20	60	40	100				
6.	DC	LN101		Basic Professional communication		1	0	3	40	20	60	40	100			
7.	DC	PT105	Human	Anatomy -I Lab	0	0	2	1	40	20	60	40	100			
8.	DC	PT106	Human	Physiology -I Lab	0	0	2	1	40	20	60	40	100			
9.	DC	PT107	Biochem	nistry-Lab	0	0	2	1	50	50	100		100			
10.	DC	PT108	Basic of Lab	Basic of Electrotherapy- Lab			2	1	40	20	60	40	100			
Total					16	06	08	26	410	230	640	360	1000			
L: Lecture T: Tutorials P: Practical					c	Cred	it	CT: Class	Test TA: Teacher Assessm		ssment					
Sest	sional (CA)	: Class Te	st + Teach	er Assessment	1025	ubjec ESE)	t Tol	tal: Sessio	hal (CA	4) + Ei	nd Seme	ester Ex	caminatio			
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Approved by the Academic Council on:

## AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- 1. To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- **5.** To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- 6. To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

# **SYLLABI**

# OF

# **BACHELOR OF PHYSIOTHERAPY**

# (BPT - I YEAR/ I SEMESTER)

### GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

### **OBJECTIVES:**

### A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

### B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

### C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

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UNIT-V Infe S. No. GEI 1. Intro 2. Ana 3. Bas 4. Stru	-	nity	nimal)				12 Hours	
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<b>U</b>		•			ctions, mod	ifications of de	ep fascia	
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S. No. OS	TEOLOG	Y & ART	HROLOG					05 Hours
1. Intro strue	OSTEOLOGY & ARTHROLOGY:         05 Hours           Introduction , axial & appendicular skeleton, classification of bone based on shape and structure, structure of growing and adult long bone, ossification of bone, Types of cartilage, their characteristics features with example.							
		•	•			of joints with e pack and loos	•	ails of synovia ion.
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		ANATOM essification		as and its	charactoric	stics features		05 Hours ires of skeleta
mus	•••							ture, action o
2. Neu		Subdivision	of nervou	us system,	structural	organization o	f nervous sy	stem including

	type: syste	s of neurons, ganglion, introduction to spinal nerves, cranial nerves an em.	d autonomic nervous
3.	-	liovascular System: Components of CVS, types of anastomoses,	types of circulation
	com	ponents of lymphatic systems and its functions.	
		UNIT-IV	
S. No.	SUF	PERIOR EXTREMITY:	12 Hours
1.		ace landmarks and Introduction to superior extremity.	
2.	Mus	cles and fascia:	
	а.	Pectoral region: Pectoral muscles, origin, insertion, action and nerve of clavipectoral fascia.	
	b.	Scapular region and Back: Muscles of Scapular region and back action and nerve supply. Details of Deltoid, Trapezius and latissimus	-
	C.	Muscles of Arm: Origin, insertion, action and nerve supply.	
	d.	Forearm and Hand: Origin, insertion, action and nerve supply of mulhand.	scles of forearm and
3.	Axilla	a: Boundaries and contents, details of Brachial plexus	
4.	Cubi	tal fossa: Boundaries and contents.	
5.		ts of superior extremity: Details of shoulder joint, brief account of elbow pulnar joint <b>.</b>	joint & wrist joint and
6.	radia	re and vessels: Important relations, branches and distribution of axillar al, ulnar & median nerve and nerve injuries. Axillary artery and Brachia	•
	distri	ibution.	
	distri	UNIT-IV	
S. No.			12 Hours
S. No. 1.	INFI	UNIT-IV	12 Hours
	INFI Intro	UNIT-IV ERIOR EXTREMITY:	12 Hours
1.	INFI Intro	UNIT-IV ERIOR EXTREMITY: duction and surface landmarks of lower extremity.	12 Hours
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1.	INFI Intro Muse a.	UNIT-IV ERIOR EXTREMITY: duction and surface landmarks of lower extremity. cles and fascia: Thigh: Brief account of fascia lata & compartments of thigh. Enumerate muscles of anterior, posterior and medial compartment	of thigh, their origin
1. 2.	INFI Intro Muse a. b. C.	UNIT-IV ERIOR EXTREMITY: duction and surface landmarks of lower extremity. cles and fascia: Thigh: Brief account of fascia lata & compartments of thigh. Enumerate muscles of anterior, posterior and medial compartment insertion, nerve supply and action, details of Qudriceps femoris. Gluteal region: Muscles of gluteal region, their origin, insertion, nerve	of thigh, their origin ve supply and action ve supply,
1.	INFI Intro Auso a. b. C. Bour	UNIT-IV ERIOR EXTREMITY: duction and surface landmarks of lower extremity. cles and fascia: Thigh: Brief account of fascia lata & compartments of thigh. Enumerate muscles of anterior, posterior and medial compartment insertion, nerve supply and action, details of Qudriceps femoris. Gluteal region: Muscles of gluteal region, their origin, insertion, nerve Compartment of leg, name of the muscles of leg, their action and nerve	of thigh, their origin ve supply and action ve supply,
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	REFERENCE BOOKS:
1.	Principles of anatomy and physiology by Tortora; 8th edition; Harper & Row Publications.
2.	Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins.
3.	Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins.
4.	Anatomy & Physiology by Ross & Wilson's, 8th edition, Churchill Livingston.
5.	Grant's atlas of anatomy, Anne MR; 10th edition
6.	Gray's Anatomy.
7.	Primary castes Anatomy by Basmajian (Williams and Willkins Co. Batlimore).
8.	Anatomy and Physiology by Smout and McDowall (Edwad Arnold).
	STUDENT LEARNING OUTCOMES/OBJECTIVES:
At th	ne end of the semester the student will be able to:
1.	General Anatomy: To understand the level of organization of the human body & its application in practice or physiotherapy.
2.	Osteology & Arthrology : To understand the muscles, bones and joints of the various regions & its application in practice of physiotherapy.
3.	Systemic Anatomy: To understand the level of organization of the human different system of the body & its application in practice of physiotherapy.
4.	Superior Extremity: To understand the topographical and functional anatomy of the upper limb & its application in practice of physiotherapy.
5.	Inferior Extremity: To understand the topographical and functional anatomy of the limbs and thorax.

	SU	BJECT N	IAME:			HUN	IAN F	PHYSIOL	.OGY-I		
	SU	BJECT (	CODE:			PT 102					
			(	w.e.f. July	y 2015)						
	Hrs. / Wk.			Credits			٦	Total Marks	5		
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UNIT-I		ral Physiolo						08 Hours	8		
UNIT-II		Physiology	v & Muscle	es Physiolo	gy:			08 Hours			
UNIT-II								08 Hours			
		ration:						08 Hours			
UNIT-V	Cardi	ovascular S	•	zxercise Pr	iysiology:			08 Hours 40 Hours			
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				UNIT	-1						
S. No.	GENERAL P	HYSIOLOG	SY:	U.I.I	•			0	8 Hours		
<u>0</u> 1.	Structure and			nic compos	sition of bo	dy fluid	ECF a				
	cell member							,	I		
				UNIT	-11						
S. No.	NERVE PHY	SIOLOGY	& MUSCL	ES PHYSI	OLOGY:			08	Hours		
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return, Normal ECG, circulatory shock. Cardiovascular & respiratory adjustment during exercise, effect of exercise training (fatigue).

# BOOKS RECOMMENDED:

### TEXTBOOKS:

1. Concise Medical Physiology by Chaudhuri, 4th Edition; New Central Book Agency.

**2.** Human Physiology, Sembulingam; 4th ed, Jaypee Brothers.

- 3. A Textbook of Practical Physiology, Ghai C L, Jaypee Brothers.
- 4. Practical physiology by Vijaya Joshi; Vora Medical Publication.

5. Human Physiology, Chatterjee. Vol: 1&2; 10th Edition; Medical & Allied Agency.

#### **REFERENCE BOOKS:**

1. Textbook of Medical Physiology by Guyton & Hall, 11th Edition; Elsevier Publication

2. Principles of Anatomy & Physiology, Tortora, 8th Edition; Harper & Row Publication.

- **3.** Samson Wright's Applied Physiology 13th ed, Keele CA, Neil E & Joels N, Oxford Medical Pub.
- 4. Textbook of Physiology : Ganong

### STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

- 1. **General Physiology:** Understand the basis of normal human physiology with special emphasis on the functioning of the cardiovascular, musculo-skeletal and nervous systems & its application in practice of physiotherapy.
- 2. Nerve Physiology & Muscles Physiology: To know about detail anatomical knowledge of nervous system and outline of muscular anatomy system & its application in practice of physiotherapy.
- **3. Bloods:** Detail knowledge of different type and function of blood cells. Brief outline of cardiovascular and respiratory system & its application in practice of physiotherapy.
- 4. **Respiration:** To learn and understand the skills of assessment of Breath sound, Blood pressure, Respiratory rate, Heart rate and Pulmonary Function Tests, & its application in practice of physiotherapy.
- 5. Cardiovascular System & Exercise Physiology: How the activities of organs are integrated for maximum efficiency in Physical Activity and exercise & its application in practice of physiotherapy.

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UNIT-II	Carbohydrate:	-						08 Hou	rs	
UNIT-III	Nucleic Acid:							08 Hou	rs	
UNIT-IV	Vitamins (Fat &	& Water S	Soluble) 8	& Enzymes	& Hormone	es:		08 Hou	rs	
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Metabolism rate (BMR). Water electrolyte balance & acid base balance.

#### BOOKS RECOMMENDED: TEXTBOOKS:

- **1.** Fundamentals of Biochemistry-by Dr. Deb Jyoti Das,
- 2. Essentials of Bio-chemistry by U. Satyanarayan, 1st Edition, Books and Allied Publications.
- 3. Textbook of Biochemistry Chatterje and Shinde

#### **REFERENCE BOOKS:**

- 1. Text book of Medical Bio-Chemistry Dr. M.N.Chettergee, 5th Edition, Jaypee Publication.
- 2. Fundamental of Bio-Chemistry Dr.Dr.A.C.Deb, 5th Edition, Central Publication.
- 3. Bio-Chemistry introduction Mekee, 2nd Edition, McGraw-Hill Publication.

### STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

1. Acquire the knowledge of functions of various systems of human body

2. Understand the role of hormones, enzymes and other different types of cells of human body.

3.	To acquire knowledge about chemical composition of nutrients and various metabolic reactions in
	the body.

	SUBJ	ECT NA	ME:		BASIC OF ELECTROTHERAPY PT 104					
	SUBJI	ECT CO	DE:							
			()	w.e.f. July	2015)					
	Hrs. / Wk.		Ì	Credits	,		Total Mark	S		
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3	1	0	3	1	0	15	25	60		
	4			4			-0	60		
		OB	JECTI	/ES OF 1	THE COL	JRSE:				
They wi	ubject, the stud Il also learn the ons of various	e principle	s, produc for variou	tion, applic s conditions	ation, para 3.	meters, effec				
	-		OUTLI	NE OF TH	E COURSI					
UNITS			e of the			MINIMU		R OF HOURS		
UNIT-I	Physical Pr						08 Hours			
UNIT-II	Effects of C		ectricity:				08 Hours			
UNIT-III	Electrical S						08 Hours	-		
UNIT-IV	Electrical S						08 Hours			
UNIT-V	Circuit Diagr			wledge of E	quipments:		08 Hours			
		Total (N	/linimal)				40 Hour	S		
				UNIT	-1					
S.No.	PHYSICAL F	PRINCIPL	ES:					08 Hours		
1.	Structure and	properties	s of matte	er – solids,	liquids and	d gasses, adl	hesion, sur	face tension		
	viscosity, den	sity and ela	asticity.							
2.	Structure of at	tom, molec	ules, eler	nents and c	compounds					
3.	Electron thera	py static a	nd curren	t electricity.						
4.	Conductors, In					and intensity				
5.	Ohm's Law –	••								
6.	Rectifying De and Oscillator		mionic Va	alves, Semi	conductors	, Transistors	, Amplifiers	, Transduce		
7.	Capacitance of	condensers	s and in D	C and AC o	circuits.					
8.	Display device	es and indi	cators – a	nalogue ar	d digital.					
				UNIT-	11					
S.No.	EFFECTS O	F CURRE						08 Hours		
1.	Chemical effe	ects- ions	and elec	ctrolytes, ic	nization, F	Production of	an EMF	by chemica		
2.	Magnetic effe	cts, Molecu	ular theory	/ of magnet	ism, Magne	etic fields Elec	ctromagnet	ic Induction.		
3.	Mili Ammeter	and voltme	eter transf	ormers and	choke coil		-			
4.	Electromagne	tic spectru	m.							
				UNIT-						
S.No.	ELECTRICA	L SUPPL	Y:					08 Hours		
1.	Brief outline o	f main sup	ply of elec	ctric current			I			
2.	Dangers- sho									
	Dressution			ing fuene e	to					
3.	Precaution – s	safety devi	ces, eartn	ing luses e	iC.					

	UNIT-IV	
S.No.	VARIOUS AGENTS:	08 Hours
1.	Electro physical Agents.	1
2.	Thermal agents, Superficial and deep heat.	
3.	Cryotherapy, Physical Principles of cold,	
4.	Electro-magnetic Radiation Physical Principles and their Relevance to Physi	otherapy.
5.	Electric Currents: Physical Principles and their Relevance to Physiotherapy I	Practice.
	UNIT-V	
S.No.	CIRCUIT DIAGRAMS AND BASIC KNOWLEDGE OF EQUIPMENTS:	08 Hours
1.	Shortwave Diathermy (SWD)	1
2.	Ultrasound (US)	
3.	Microwave Diathermy (MWD)	
4.	"Light Amplification by Stimulated Emission of Radiation" (LASER)	

### **BOOKS RECOMMENDED:**

#### **TEXTBOOKS:**

2. Electrotherapy Explained by John Low and Reed, 3rd edition, B & H Publications.

3. Practical in Electrotherapy by Joseph Kahn, Churchill livingstone.

#### **REFERENCE BOOKS:**

**1.** Electrotherapy: Evidence Based Practice by Kitchen Sheild, 11th ed.

**2.** Physical Agents in Rehabilitation: From Research to Practice by Cameron.

### STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

1. Describe the fundamentals of general physics and relate its application in physiotherapy.

- 2. Demonstrate the mechanics related to human body function.
- **3.** Describe all the physical agents and their use in electrotherapy modalities.

4. Understand basic concepts of electricity and electronics and its application in physiotherapy.

	BJECT NA		COMPUTER APPLICATION IN PHYSIOTHERAPY							
SU	BJECT CO	DE:			(	CS 107				
			۷)	v.e.f. July	2015)					
	Hrs. / Wk.			Credits	T _		Total Marks			
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UNITS				-						
UNIT-I	Introduction		_					)6 Hours	OF HOURS	
UNIT-II	Generation							06 Hours		
UNIT-III	Software C							06 Hours		
UNIT-IV	Software C						(	06 Hours		
UNIT-V	IT Technolo							06 Hours		
		Total (	Minimal)		-		3	0 Hours		
				UNIT	-1			-		
S.No.	INTRODUCT								Hours	
1.	Definition, Ar	chitecture	of Compute					-	e & Humar	
	Ware, Motherboard, Tapes Printers- it types Monitor, Networks types and topology.									
			•	-			•	•		
	Ware, Mother Application of		•	-			•	•		
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	Application of	f Compute	•	-	handling o		•	•		
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2. MS Office by Pierce, Prentice Hall of India, New Delhi, 2007 9. MS Office: Plain & Simple, Jerry Joyce, and Marianne Moon, Prentice Hall of India, New Delhi, 2007.

	STUDENT LEARNING OUTCOMES/OBJECTIVES:
At th	e end of the semester the student will be able to:
1.	To have a good understanding of the basic concepts of computer and basic software useful in
	physiotherapy.
2.	To gain knowledge of the appropriate operating procedure of computer.
3.	To use the internet for study and research purposes.

30	<b>JBJECT NA</b>	ME:	BASIC PROFESSIONAL COMMUNICATION					
SL	JBJECT CO	DE:	LN 101					
			(W	.e.f. July 2	2015)			
	Hrs. / Wk.		Credits			Тс	otal Marks	_
L	Т	Р	L	Т	Р	TA	СТ	ESE
2	1	0	2	1	0	15	25	60
	3 3 40							60
ا مناطع	aubiaat tha atu			ES OF TI	HE COUI	RSE:		
in this s	subject, the stu	dent will lea		ne NE OF THE	COURSE:			
UNITS	3	TITLE	OF THE	UNIT		MINIMUM N	UMBER OF	HOURS
UNIT-I	Profession	nal Commu	inication				06 Hours	
UNIT-II	Language	through L	iterature				06 Hours	
UNIT-III	Basic Voc	abulary					06 Hours	
UNIT-IV	Basic Gra	mmar					06 Hours	
UNIT-V	Basic Con	nposition					06 Hours	
		Total (M	inimal)			:	30 Hours	
				UNIT-I				
S.No.	PROFESSIO	ONAL CO	MMUNIC				06	lours
1.	Professional	Communi	cation: I	ts meaning	g & impo	ortance, Esse	entials of	Effective
	Communicati	on, Barriers	to Effect	ive Commur	ication.			
	<b>T</b>			UNIT-I				
S.No.	LANGUAGE	E THROUG	SH LITEF	RATURE			06 I	lours
1.	Essays:		с. <b>т</b>	N.A				
	"The Effect of "The Aims of							
2.	Short Stories		ununun					
	"The Meeting	-	uskin Bor	nd				
	"The Portrait	of a Lady" k	by Khushv	0				
				UNIT-II				
S.No.	BASIC VOCABULARY							
5.NO.	Euphemism, One-word Substitution, Synonyms, Antonyms, Homophones, Idioms and						07	Hours
		One-word S	Substitutio		s, Antonym			
	Euphemism, Phrases, Cor	One-word S	Substitutio	fusable word	s, Antonym Is and expre			
1.	Phrases, Cor	One-word S nmon mista	Substitutio		s, Antonym Is and expre		es, Idioms a	and
1. S.No.	Phrases, Cor	One-word S nmon mista	Substitutio kes, Conf	fusable word UNIT-IV	s, Antonym Is and expr /	essions.	es, Idioms a	and Hours
	Phrases, Cor BASIC GR/ Articles, Prep	One-word S nmon mista AMMAR positions, Te	Substitutio kes, Conf	fusable word UNIT-IV	s, Antonym Is and expr /		es, Idioms a	and Hours
1. S.No.	Phrases, Cor	One-word S nmon mista AMMAR positions, Te	Substitutio kes, Conf	fusable word UNIT-IN oncord (Subj	s, Antonym Is and expro / ect-Verb ag	essions.	es, Idioms a	and Hours
1. <u>S.No.</u> 1.	Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree	One-word S nmon mista AMMAR positions, To es of Comp	Substitutio kes, Conf enses, Co arison.	fusable word UNIT-IV	s, Antonym Is and expro / ect-Verb ag	essions.	es, Idioms a	and Hours &
1. S.No.	Phrases, Cor BASIC GRA Articles, Prep Uses, Degree BASIC CON	One-word S nmon mista AMMAR positions, To es of Comp	Substitutic ikes, Conf enses, Cc arison. N	iusable word UNIT-IV oncord (Subj UNIT-V	s, Antonym Is and expro / ect-Verb ag	reement, Verb	es, Idioms a 07 os: its Kind o 06	and Hours
1. S.No. 1. S.No.	Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree BASIC CON Report writin	One-word S nmon mista AMMAR positions, To es of Comp MPOSITIO g: What is a	Substitutio ikes, Conf enses, Co arison. <b>N</b> a report?	fusable word UNIT-IN oncord (Subj UNIT-V Kinds and o	s, Antonym Is and expr ect-Verb ag bjectives of	essions.	es, Idioms a 07 05: its Kind 06 06 09 09 09 09 09 09 09 00 00 00 00 00 00	Hours & Hours
1. S.No. 1. S.No.	Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree BASIC CON Report writin	One-word S nmon mista AMMAR Dositions, To es of Comp MPOSITIO g: What is a tter writing: etters, Lette	Substitutio ikes, Conf enses, Co arison. <b>N</b> a report? Introducti er of Enqu	fusable word UNIT-IN oncord (Subj UNIT-V Kinds and o ion to busin uiry / Compla	s, Antonym Is and expro ect-Verb ag bjectives of ess letters, aint	reement, Vert	es, Idioms a 07 05: its Kind 06 06 09 09 09 09 09 09 09 00 00 00 00 00 00	Hours & Hours
1. S.No. 1. S.No.	Phrases, Cor         BASIC GR/         Articles, Prep         Uses, Degree         BASIC CON         Report writin         Business Let	One-word S nmon mista AMMAR Dositions, To es of Comp MPOSITIO g: What is a tter writing: etters, Lette	Substitutio ikes, Conf enses, Co arison. N a report? Introducti er of Enqu BOOKS	UNIT-IN ONCORD (Subj UNIT-V Kinds and o ion to busin uiry / Compla S RECOM	s, Antonym Is and expr ect-Verb ag bjectives of ess letters, aint <b>MENDEI</b>	reement, Vert	es, Idioms a 07 05: its Kind 06 06 09 09 09 09 09 09 09 00 00 00 00 00 00	Hours & Hours
1. S.No. 1. S.No. 1.	Phrases, Cor         BASIC GR/         Articles, Prep         Uses, Degree         BASIC CON         Report writin         Business Let	One-word S nmon mista AMMAR positions, To es of Comp MPOSITIO g: What is a tter writing: etters, Letto	enses, Con enses, Co arison. N a report? Introducti er of Enqu BOOKS	INIT-IN INIT-IN INIT-IN INIT-IN INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V INIT-V	s, Antonym Is and expre ect-Verb ag bjectives of ess letters, aint <b>MENDEI</b> KS:	reement, Verk reports, writir types of bus	es, Idioms a 07 05: its Kind o 06 ng reports. iness letter	Hours & Hours

2.	Quintanilla ,Kelly M. & Wahl ,Shawn T.Business and Professional Communication, Sage
	Publications India Pvt. Ltd-2011
	REFERENCE BOOKS:
1.	Juneja, Om P & Mujumdar, Aarati .Business Communication :Techniques and Methods, Orient
	Black Swan-2010.
2.	Arora, V. N. & Chandra, Lakshmi . Improve Your Writing: From Comprehensive to Effective
	Writing, Oxford University Press-2010 (For the prescribed essays- "The Effect of the Scientific
	Temper on Man" by Bertrand Russell & "The Aims of Science and Humanities" by Moody E.
	Prior).
3.	Mukherjee, Meenakshi .Let's Go Home and Other Stories, Orient Black Swan-2009 (For the
	prescribed short stories-"The Meeting Pool" by Ruskin Bond, "The Portrait of a Lady" by
	Khushwant Singh).
4.	Quirk, Randolph & Greenbaum, Sidney. A University Grammar of English, Pearson-2013.
5.	Bolton, David & Goodey, Noel .English Grammar in Steps, Orient Black Swan.
6.	Sethi, J. Standard English And Indian Usage: Vocabulary and Grammar, PHI Learning Pvt. Ltd .
	-2011
7.	Bhaskaran, M. P. & Horsburgh, D. Strengthen Your English, Oxford University -1973
8.	Greenbaum, Sidney . The Oxford English Grammar ,Oxford University Press, New York-1996.
9.	Bovee, Courtland L. & Thill, John V.Business Communication Essentials, Pearson.
10.	Board of Editors. Written and Spoken Communication in English, University Press-2007.
11.	Gairns, R. & Radman, S. Working with Words: A Guide to Teaching and Learning Vocabulary
	Building. Cambridge: Cambridge University Press-1986
12.	Lewis, M. H. Words Power Made Easy, Goyal Publishers and Distributors Pvt. Ltd-1979
13.	McCarthy, M. Vocabulary, Oxford University Press-1990.

At the end of the semester the student will be able to:

- 1. To sharpen basic Communication Skills (LSRW) by revealing the key communication techniques.
- **2.** To expose themselves to the modern modes of communication.

### SUBJECT NAME: SUBJECT CODE:

# HUMAN ANATOMY-I LAB

PT 105

(w.e.f. July 2017)

	Hrs./V	Nk.	Credits			Total Marks		
L	Т	Р	L	Т	Р	ТА	СТ	ESE
0	0	4	0	0	4	30	30	40
4			2			60		40
						DSE.		

# In this subject, the student will learn about the identification of all gross anatomical structures. Particular emphasis will be placed on description of musculoskeletal anatomy which includes bones, joints, muscles, cardiovascular system and nervous system, as these are related to the application

of physiotherapy in patients.

### **OUTLINE OF THE COURSE:**

S.No.	TITLE OF THE UNIT	Hours
1.	Demonstration of Anatomical position and movements.	
2.	Demonstration of articulated skeleton. Identification and orientation of bones and joints in an articulated skeleton. Classification of bones according to shape.	
3.	Demonstration of bones of superior extremity - Clavicle, Scapula, Humerus, Radius, Ulna and Skeleton of hand	
4.	Identification of muscles nerves and blood vessels on prosections of Superior extremity: Pectoral region, Scapular region and Back, Axilla, Arm, Forearm and Hand	
5.	Surface landmarks of superior extremity.	
6.	X rays and models of superior extremity.	
7.	Demonstration of bones of inferior extremity. Hip bone, Femur, Patella, Tibia, Fibula and Skeleton of foot.	
8.	Identification of muscles nerves and blood vessels on prosections of Inferior extremity: Gluteal and hip region, Thigh, Leg and foot.	
9.	Surface landmarks of inferior extremity.	
10.	X rays and models of inferior extremity.	
	Total (Minimal)	60

# BOOKS RECOMMENDED:

	TEXTBOOKS:
1.	Human Anatomy by B.D. Chaurasia, Vol. 1,2nd edition; CBS publications.
2.	Textbook of Anatomy by Inderbir Singh; 4th edition; Jaypee Publications.
3.	Handbook of Osteology by Poddar; 11th edition; Scientific Book Company.
4.	Limbs of Dr. Kadasana-All 3 volumes.
	REFERENCE BOOKS:
1.	Principles of anatomy and physiology by Tortora; 8th edition; Harper & Row Publications.
2.	Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams &
	Wilkins.
3.	Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams &
	Wilkins.
4.	Anatomy & Physiology by Ross & Wilson's, 8th edition, Churchill Livingston.
5.	Grant's atlas of anatomy, Anne MR; 10th edition

At th	ne end of the semester the student will be able to:
1.	To understand the level of organization of the human body.
2.	To understand the topographical and functional anatomy of the limbs and thorax.
3.	To understand the muscles, bones and joints of the various regions.
4.	To understand its application in practice of physiotherapy.

	306	SUBJECT NAME:						HUMAN PHYSIOLOGY-I LAB		
	SUE	BJECT C	ODE:			I	PT 106			
			(W	.e.f. July	2015)					
	Hrs. / Wk.			Credits			Total Marks			
L	Т	Р	L	Т	Р	TA	СТ	ESE		
0	0	2	0	0	2	30	30	40		
	2		1			60 40				
		OB	JECTIV	'ES OF T	HE CO	DURSE:				
In this sub	oject, the stu	udent will	learn abo	out the bas	sics of n	normal human	physiology v	vith specia		
emphasis d	on the function	oning of the	e cardiova	scular, resp	biratory a	and other system	ns.	-		
		C	UTLIN	E OF TH	E COU	IRSE:				

S.No.	TITLE OF THE UNIT	Hours
1.	Introduction of Microscope.	
2.	Preparations of Peripheral Blood smear.	
3.	Identification of Blood cell.	
4.	D.L.C Differential Leucocytes count.	
5.	T.L.C Total Leukocytes Count.	
6.	R.B.C. Count.	
7.	Estimation of Haemoglobin.	
8.	Estimation of bleeding time & clotting time.	
	Total (Minimal)	30

	BOOKS RECOMMENDED:					
	TEXTBOOKS:					
1.	Concise Medical Physiology by Chaudhuri, 4th Edition; New Central Book Agency.					
2.	Human Physiology, Sembulingam; 4th ed, Jaypee Brothers.					
3.	A Textbook of Practical Physiology, Ghai C L, Jaypee Brothers.					
4.	Practical physiology by Vijaya Joshi; Vora Medical Publication.					
5.	Human Physiology, Chatterjee. Vol: 1&2; 10th Edition; Medical & Allied Agency.					
	REFERENCE BOOKS:					
1.	Textbook of Medical Physiology by Guyton & Hall, 11th Edition; Elsevier Publication					
2.	Principles of Anatomy & Physiology, Tortora, 8th Edition; Harper & Row Publication.					
3.	Samson Wright's Applied Physiology 13th ed, Keele CA, Neil E & Joels N, Oxford Medical Pub.					
4.	Textbook of Physiology : Ganong					

At th	e end of the semester the student will be able to:
1.	Acquire the knowledge of functions of various systems of human body
2.	Understand the role of hormones, enzymes and other different types of cells of human body.
3.	To demonstrate the skills of assessment of Breath sound, Blood pressure, Respiratory rate,
	Heart rate and Pulmonary Function Tests.

	SUBJECT NAME:					BIOCHEMI	STRY-LA	В
	SUBJECT CODE:				PT 107			
Hrs. / Wk. Credits								
L	T	Р	L	T	Р	ТА	СТ	ESE
0	0	2	0	0	2	50	50	00
	2			1		10	00	00
		OE	<b>SJECTI</b>	VES OF '	THE COL	JRSE:		
In this reactio	subject, the stu ns.	dent will le	arn abou	t the essen	tials of biod	hemistry in n	utrition and b	biochemical
		(	OUTLIN	IE OF TH	IE COUR	SE:		
S.No.	TITLE OF TH							Hours
1.	Quantitative of							
	a. Lowry							
	b. Bradfo							
2.	Quantitative Estimation of							
	a. Glucos							
	b. Urea c	Urea concentration						
	c. Cholesterol Concentration							
3.	Chromatogra	phy						
	a. TLC (T	hin layer c	hromatog	raphy) & Pa	aper chroma	atography		
	<b>I I I</b>	-	Total	(Minimal)		-		

	BOOKS RECOMMENDED:					
	TEXTBOOKS:					
1.	Fundamentals of Biochemistry-by Dr. Deb Jyoti Das,					
2.	Essentials of Bio-chemistry by U. Satyanarayan, 1st Edition, Books and Allied Publications.					
3.	Textbook of Biochemistry –Chatterje and Shinde					
	REFERENCE BOOKS:					
1.	Text book of Medical Bio-Chemistry – Dr. M.N.Chettergee, 5th Edition, Jaypee Publication.					
2.	Fundamental of Bio-Chemistry – Dr.Dr.A.C.Deb, 5th Edition, Central Publication.					
3.	Bio-Chemistry introduction – Mekee, 2nd Edition, McGraw-Hill Publication.					

At the end of the semester the student will be able to:

1.	Acquire the knowledge of functions of various systems of human body
2.	Understand the role of hormones, enzymes and other different types of cells of human body.
3.	To acquire knowledge about chemical composition of nutrients and various metabolic reactions in
	the body.

		SUBJE	CT NAM	E:		BASIC OF	ELECTR	OTHERAP	Y-LAB	
		SUBJE	CT COD	E:			PT 1	08		
				(	w.e.f. J	uly 2015)				
	H	's./Wk.			Crea	dits	Total Marks			
L		T P		L	Т	Р	TA	СТ	ESE	
0		0	2	0	0	2	30	30	40	
		2			1		6	0	40	
<del></del>						F THE COL				
		nvolves a eutic moda		ion of so	me bas	ic physical prine	ciples as they	relate to the	application of	
electio	linerape			ΟΠΤΠ		THE COURSE				
				UUIL			•			
S.No.		E OF THE							Hours	
1.	Demo		of following	-						
	а.	Diode a	nd Triode v	alves,						
	b.	Transist								
	C.	Ammete								
	d.	Voltmete								
	е.	Galvano	,							
	f.	Rheosta	,							
	g.	Resistar	,							
	h.	Transfor	-							
2.	Demo		of Electroth	erapy uni	ts like					
	а.	Stimulate								
	b.		ave Diatheri							
	C.		ave Diather	my,						
	d.	LASER a								
	е.	Ultrasou	,							
3.	Clinic	al observa	ation of equi							
				Tot	al (Mini	mal)			30	

BOOKS RECOMMENDED:							
TEXTBOOKS:							
Clayton's Electrotherapy (theory and practice) – Clayton's AIBS publications.							
Electrotherapy Explained by John Low and Reed, 3rd edition, B & H Publications.							
Practical in Electrotherapy by Joseph Kahn, Churchill livingstone.							
REFERENCE BOOKS:							
Electrotherapy: Evidence Based Practice by Kitchen Sheild, 11th ed.							
Physical Agents in Rehabilitation: From Research to Practice by Cameron.							

At th	ne end of the semester the student will be able to:
1.	Describe the fundamentals of general physics and relate its application in physiotherapy.
2.	The student should be able to explain the physical rationale for the use of physical agent modalities
3.	Describe all the physical agents and their use in electrotherapy modalities.
4.	Understand basic concepts of electricity and electronics and its application in physiotherapy.

# & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

**SCHEME OF EXAMINATION** 

			SCH	EME O	F EXA	MINA		N				
				Tł	HEORY	' <b>:</b>						
			INTE		SSES	SMEN	T (IA)					
					0 Marks		( )					
CI	LASS 1	EST (CT	)		TEA	CHER	ASSE	ESSM	ENT (	TA)		
MSE-1	MS	E- 2   Ma	keup ST-1	ST-2	Q-1	Q-2	A-1	A-2	A-3	A-4	Attendance	
25	2	25	25 5	5	5	5	5	5	5	5	5	
			END SE	EMESTER			DN (ES	SE)				
				6	0 Marks							
			INTE	ERNAL A			T (IA)					
					s Test (	СТ)				<u></u>		
	1: 25 Ma	arks	PM	: 13 (50%				lim	ne: 1:3	0 Hou		
Q.No.	M143-	Noo Chair		Models	-						Marks	
1.	wuitip	nes choic	e Questions	e Questi		oach	Unit				1.5X5=7.5	
	a.	i)		ii)	-	iii)		iv)			1.5	
	a. b.	i)		ii)		iii)		iv)			1.5	
	C. i)			ii)		iii)		iv)			1.5	
	d. i)			ii)		iii)		iv)			1.5	
	е.			, ii)		iii)		iv)		1.5		
2.	Short		s (any three)	)		,		,		2	2.5X3=7.5	
	a.			·						2.5		
	b.										2.5	
	с.										2.5	
	d.										2.5	
	e.										2.5	
3.	Long	Question	s (any two)								5X2=10	
	а.										5	
	b.										5	
	с.						<u></u>				5	
	N/11/- 0	O Manla	End	Semeste			(ESE)		<b>T!.</b>		Heurs	
Q.No.	IVIIVI: 6	0 Marks		Model	: 21 (35	70)			ime	: 3:00 Mark	Hours	
Q.NO. 1.	Multir	Ne Choice	Questions	wodel	3						.s 1X12=12	
••	mann			o Questi	on from	each	Unit					
	a.	i)		ii)		iii)		iv)			1	
	b.	i)		ii)		<i>)</i> iii)		iv)			1	
	с.	i)		ii)		<i>,</i> iii)		iv)			1	
	d.	i)		ii)		iii)		iv)			1	
	e.	i)		ii)		iii)		iv)			1	
	f.	i)		ii)		iii)		iv)			1	
	g.	i)		ii)		iii)		iv)			1	
	h.	i)		ii)		iii)		iv)			1	
	i.	i)		ii)		iii)		iv)			1	

	j.	i)	ii)	iii)	iv)	1
	k.	i)	ii)	iii)	iv)	1
	l.	i)	ii)	iii)	iv)	1
2.	Short Q	uestions (any	Four)			3X4=12
	a.					3
	b.					3
	C.					3
	d.					3
	е.					3
	f.					3
3.	Short Q	uestions (any	Two)			3X4=12
	a.					3
	b.					3
	C.					3
	d.					3
	е.					3
	f.					3
4.	Long Qu	uestions (any	Two)			6X2=12
	а					6
	b.					6
	С.					6
4.	Long Qu	uestions (any	Two)			6X2=12
	а.					6
	b.					6
	С.					6

# STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

# (BPT - I YEAR/ II SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



# INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

# DEPARTMENT OF PHYSIOTHERAPY INTEGRAL UNIVERSITY, LUCKNOW

# **STUDY & EVALUATION SCHEME**

# PROGRAM: BACHELOR OF PHYSIOTHERAPY (BPT)

I - Year

-					1	Period	ds	Credits		Eva	luation	Schem	e	
S. No	Course Category	Code No.	Name	e of the Course					See	ssiona	I (CA)	1202	Subject	
						L	т	P	С	СТ	TA	Total	ESE	Total
				II -	Ser	nest	ter							
1.	DC	PT109	Human /	Anatomy-II	3	1	0	4	40	20	60	40	100	
2.	DC	PT110	Human I	3	1	0	4	40	20	60	40 -	100		
3.	DC	PT111	Basic of	3	1	0	4	40	20	60	40	100		
4.	DC	PT112	Sociolog	2	1	0	3	40	20	60	40	100		
5.	DC	ES101	Environn	2	1	0	3	40	20	60	40	100		
6.	DC	LN202	Advance	2	1	0	3	40	20	60	40	100		
7.	DC	PT113	Human A	Anatomy-II Lab	0	0	2	1	40	20	60	40	100	
8.	DC	PT114	Human P	hysiology-II Lab	0	0	2	1	40	20	60	40	100	
9	DC	PT115	Basic of Lab	Exercisetherapy-	0	0	2	1	40	20	60	40	100	
		т	otal		15	06	06	24	360	180	540	360	900	
: Lec	ture	T: T	utorials	P: Practical	c	: Crec	dit	CT: Class	Test	TA	A: Teach	er Asse	ssment	
essi	onal (CA):	Class Tes	t + Teache	er Assessment		ubjec ESE)	t Tot	al: Session	nal (C/					
	Department Department		,											

### AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- **6.** To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

# SYLLABI OF BACHELOR OF PHYSIOTHERAPY (BPT - I YEAR/ II SEMESTER)

#### GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

### **OBJECTIVES:**

### A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

#### B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

### C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

		SURI		ME.			ΗΙΜΔΝ		Y-11	
			ECT NAI					PT 109	1-11	
		30DJ		DE.	hu of hu	N 2017)		FT 109		
					(w.e.f. Ju	ly 2017)				
	н	rs. / Wk.			Credits			Total Mar	ks	
L		ESE								
3		1	0	3	1	0	15	25	60	
		4			4			40	60	
			0	BJECT	<b>IVES OF</b>	THE CO	OURSE:			
				OUTL	NE OF T	HE COU	IRSE:			
UNITS	TI	TLE OF T	HE UNIT				MINIMUM	I NUMBER OF	HOURS	
UNIT-I	TH	HORAX						08 Hours	5	
UNIT-II	AE	BDOMEN 8	& PELVIS					08 Hours	5	
UNIT-III		EAD AND I	NECK					09 Hours		
UNIT-IV		RAIN						08 Hours		
UNIT-V	NE	EUROANA		.:				07 Hours		
			Total (Mii	nimai)				40 Hours	5	
					UNI	T-I				
S.No.	тно	DRAX:			••••				08 Hours	
1.	_	racic wall								
	a.	Thoracio	inlet: Bour	ndaries a	nd structure	passing th	rough it.			
	b.	•••		•		present, a	action and	nerve supply	of intercostals	
			, details of				ly of diank	roam Dotoila	of Despiratory	
	C.	moveme	-	ments, a	iction and r	ierve supp	by of diapr	iragm. Details	of Respiratory	
2.	Pleu	ra & Lung								
	а.		of pleura an	d its nerv	e supply.					
	b.			ssures ar	nd lobes and	d structure i	in the hilum	of lung.		
3.	Peri	cardium &								
	a.	Layers of pericardium           Introduction to heart, external features and blood supply.								
4.	b.		tion to hear				uppiy.			
٦.	<b>a</b> .				cending arc	h of aorta a	and descen	ding aorta.		
	b.				rachiocepha			-		
	C.		system of v							
					UNI	Г-II				
S.No.	AB		& PELVIS:						08 Hours	
1.				its regior	ns and quad	rants.				
2.	Abde	ominal wa								
	а.	Enumer	ate of the la	ayers of a	anterior abdo	ominal wall				

	b.	Muscles of anterior and posterior abdominal wall their origin insertion	, action and nerv
		supply.	
<u> </u>	C.	Rectus sheath.	provincel acquisite Drive
3.		ponents of gastrointestinal tract, their location and orientation in abdo ount of liver and stomach.	ominai cavity. Brie
4.	Urina	ary system: Components of urinary system, their location and orientation	in abdomino-pelvi
	cavit	y. Brief account of kidneys.	
5.	Repr	roductive system: Components of male & female reproductive system and	their location.
		UNIT-III	
S.No.	HEA	AD AND NECK	09 Hours
1.	Muse	cles and fascia	
	(a)	Scalp and muscles of facial expression	
	•	Layers of scalp, nerve and blood supply.	
	•	Enumerate muscles of facial expression, their nerve supply and action supply of face.	ion, sensory nerv
	(b)	Muscles of mastication, their origin, insertion action and nerve supply	
	(c)	Neck: Layers of deep cervical fascia, extent and attachment o	f investing lave
	(0)	Sternocleidomastoid, diagastric and strap muscles of neck.	invooting layo
2.	Triar	ngles of neck: Subdivision of anterior and posterior triangle and their	contents. Commo
		tid & external carotid artery & Internal Jugular vein.	
3.		s: Details of temporomandibular joint, atlantoaxial and atlanto-occipital joir	nt
J.	JUIII		π.
J.	30111	· · · · · · · · · · · · · · · · · · ·	
		UNIT-IV	
S.No.	BRA	UNIT-IV	08 Hours
S.No. 1.	BRA Intro	UNIT-IV AIN duction and regional organization of brain including its coverings.	08 Hours
S.No.	BRA Intro Cere and	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au	08 Hours ere. Important suld iditory areas. Whit
S.No. 1.	BRA Intro Cere and matte	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum	08 Hours ere. Important suld iditory areas. Whit
S.No. 1.	BRA Intro Cere and matte caps	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum	08 Hours ere. Important suld iditory areas. Whit
S.No. 1. 2.	BRA Intro Cere and matte caps Cere	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum.	<b>08 Hours</b> ere. Important suld iditory areas. Whit , details of interna
S.No. 1. 2. 3. 4.	BRA Intro Cere and matte caps Cere Mid I	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to	<b>08 Hours</b> ere. Important suld iditory areas. Whit , details of interna
S.No. 1. 2. 3. 4. 5.	BRA Intro Cere and matte caps Cere Mid I Spin	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features.	<b>08 Hours</b> ere. Important suld iditory areas. Whit , details of interna
S.No. 1. 2. 3. 4. 5.	BRA Intro Cere and matte caps Cere Mid I Spin	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system.	<b>08 Hours</b> ere. Important suld iditory areas. Whit , details of interna
S.No. 1. 2. 3. 4. 5. 6.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. abral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. abellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV	<b>08 Hours</b> ere. Important suld iditory areas. Whit , details of interna them.
S.No. 1. 2. 3. 4. 5. 6. S.No.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY	<b>08 Hours</b> ere. Important suld iditory areas. Whit , details of interna
S.No. 1. 2. 3. 4. 5. 6. S.No. 1.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts.	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. iial nerves: Enumerate the cranial nerves, their site of attachment and inner	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6. 5. 6. 5. No. 1. 2.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and inner and trigeminal nerve.	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6. S.No. 1.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. iial nerves: Enumerate the cranial nerves, their site of attachment and inner	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6. S.No. 1. 2.	BRA Intro Cere and matte caps Cere Mid I Spin CSF	UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY Dertant ascending and descending tracts. nial nerves: Enumerate the cranial nerves, their site of attachment and inner a account of visual and auditory path way. BOOKS RECOMMENDED:	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6. S.No. 1. 2. 3. 3.	BRA Intro Cere and matte caps Cere Mid I Spin CSF NEL Impo Cran facia Brief	UNIT-IV AIN duction and regional organization of brain including its coverings. brai hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. bellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and innul and trigeminal nerve. BOOKS RECOMMENDED: TEXTBOOKS:	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6. 5. 6. 1. 2. 3. 1. 1. 1.	BRA Intro Cere and matte caps Cere Mid I Spin CSF NEL Impo Cran facia Brief	UNIT-IV AIN duction and regional organization of brain including its coverings. brai hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. bellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV JROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and innel and trigeminal nerve. account of visual and auditory path way. BOOKS RECOMMENDED: TEXTBOOKS: Singh'S Textbook of Anatomy 7 <sup>th</sup> edition Vol.1, 2, 3	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours
S.No. 1. 2. 3. 4. 5. 6. S.No. 1. 2. 3. 1. 1. 2. C	BRA Intro Cere and matte caps Cere Mid I Spin CSF NEL Impo Cran facia Brief	UNIT-IV AIN duction and regional organization of brain including its coverings. brai hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. bellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and innul and trigeminal nerve. BOOKS RECOMMENDED: TEXTBOOKS:	08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours

4.	Surface and Radiological Anatomy 3 <sup>rd</sup> edition by A. Halim
5.	B.D. Chaurasia Human Anatomy : Regional and Applied Dissection & Clinical 7 <sup>th</sup> Edition Vol. 1., 2, 3
6.	General Anatomy by Vishram Singh 2 <sup>nd</sup> Edition
7.	Clinical Anatomy by Regions - Richard S. Snell
8.	Human Osteology- A Clinical Orientation - Nafis Ahmad Faruqi 3rd Edition
9.	Grant's Atlas of Anatomy - Anne M. R. Agur, Arthur F. Dalley
10.	Gray's Anatomy: The Anatomical Basis of Clinical Practice - Susan Standring 41 <sup>st</sup> edition
11.	McMinn and Abrahams' Clinical Atlas of Human Anatomy - Peter H. Abrahams
	REFERENCE BOOKS:
1.	Principles of anatomy and physiology by Tortora; 8th edition; Harper & Row Publications.
2.	Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins.
3.	Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins.
4.	Anatomy & Physiology by Ross & Wilson's, 8th edition, Churchill Livingston.
5.	Grant's atlas of anatomy, Anne MR; 10th edition
6.	Gray's Anatomy.
7.	Primary castes Anatomy by Basmajian (Williams and Willkins Co. Batlimore).
8.	Anatomy and Physiology by Smout and McDowall (Edwad Arnold).
	STUDENT LEARNING OUTCOMES/OBJECTIVES:
At the	e end of the semester the student will be able to:
1.	General Anatomy: To understand the level of organization of the human body & its application in practice of
	physiotherapy.
2.	Osteology & Arthrology : To understand the muscles, bones and joints of the various regions & its application
	in practice of physiotherapy.
3.	Systemic Anatomy: To understand the level of organization of the human different system of the body & its
4	application in practice of physiotherapy.
4.	
5.	
4. 5.	Superior Extremity: To understand the topographical and functional anatomy of the upper limb & its appli in practice of physiotherapy. Inferior Extremity: To understand the topographical and functional anatomy of the limbs and thorax.

		SUE		IAME:			HUN	IAN	PHYSIOL	OGY-II
		SUE	BJECT (	CODE:					PT 110	
				(	w.e.f. Jul	y 2015)				
	Hrs. /				Credits				Total Marks	
L	Т		Р	L	Т 1	Р		Α	СТ	ESE
3	1	0	3	0	1	5	25	60		
	4		0						40	60
				JECH	VES OF		JUKSE			
			(	OUTLIN	IE OF TI	HE COU	IRSE:			
	JNITS <sup>-</sup>	TITLE	OF THE U	NIT			Μ	INIMU	M NUMBER	OF HOURS
UNIT-I		Excrete	ory Functio	n					08 Hours	6
UNIT-II			Intestinal		/				08 Hours	
UNIT-III			us System		Senses				08 Hours	
UNIT-IV			rine Systen						08 Hours	
UNIT-V		Reproc	ductive Sys						08 Hours	
			i otal (N	linimal)					40 Hours	•
	1				UNI	Г-І				
S. No.			Y FUNCT							lours
1.	Kidney structure and function, Urine formation, Glomerular filtration									
Tubular absorption, Regulation of Na, K, Ca, and H <sub>2</sub> O. Acidification of balance, micturition reflex neuron control, neurogenic bladder, diuretics								e, Acia das		
	Dalalice	, 111011							00	
S. No.	GAST		TESTINA			••			08	Hours
<u>0. 110.</u> 1.						compositio	on, secre	etarv	function of s	
-	juices,	HCL s	ecretion, p	ancreas g	gall bladde				gestion and a	
	food, de	efecation	on and swa	allowing re						
	<b></b> =-				UNIT					
<u>S. No.</u>					AL SENS					Hours
1.	propred tracts, i hypotha memory	oceptio motor alamus / and	n, labyrinth function of , thalamus condition i	n, functio <sup>-</sup> spinal c s, basal eflex, po	n of senso ord and re ganglia, c	ory and m eflexes, sp erebellum ilibrium ar	otor cort pinal cord , limbic	ex, as d trans syster	ch, pain, temp scending and saction and s m, RAI syste oral blood flo	l descending spinal shock em, learning
					UNIT	-IV				
S. No.	_	-	ESYSTEM							Hours
1.	parathy	roid, p		Tempera	ture Regu				thyroid, adre amus and v	
				U	UNIT	-IV				
S. No.	REPRO	ODUC								Hours

# **BOOKS RECOMMENDED:**

### **TEXTBOOKS:**

- Textbook of Physiology: Guyton 1.
- 2.

Textbook of Physiology: Ganong Human Physiology: 1. Chaudhary 2. Bijlani Essentials of Medical Physiology: K.Semubulingam. 3. 4.

### **REFERENCE BOOKS:**

1. 2. 3.

4.

### STUDENT LEARNING OUTCOMES/OBJECTIVES:

A + +1	
At th	ne end of the semester the student will be able to:
1.	
2.	
3.	
4.	
5.	

	<u>2001</u>	ECT NA	ME:	BASIC OF EXERCISE THERAPY					
	SUBJI	ECT CO	DE:		PT 111				
	Hrs. / Wk.			Credits			Total Marl	ks	
L	T	Р	L	Т	Р	TA	СТ		ESE
3	1	0	3	1	0	15	25		60
	4			4			40		60
		OE	BJECTI	VES OF	THE COU	JRSE:			
		(	OUTLIN	IE OF TH		SE:			
JNITS	TITLE OF T	HE UNIT				Minir	num Numb	er of H	ours
JNIT-I							08 Ho	urs	
JNIT-II							08 Ho	urs	
JNIT-III							08 Ho	urs	
JNIT-IV							08 Ho	urs	
JNIT-V							08 Ho	urs	
		Total	(Minimal)				40 Ho	urs	
				UNIT	-1				
5. No.								08 H	lours
	of Movement			om, Bones a	nd their Cla		Classification	n, Clas	sificati
3. No.	of Movement Musculoske Tension, Mus Gravity: Effe and Movemen	, Degrees letal Basi scle Fibre ( cts, Centre nt.	of Freedo s of Mov Group Act e of gravi	vement: Str tion of Musc ty, Line of G	nd their Cla II ructure of les, Torque Fravity and	Assification. Muscle and & angle of their Alterat	its Classific	08 H cation,	<b>lours</b> Muscl
S. No.	of Movement Musculoske Tension, Mus Gravity: Effe	, Degrees letal Basi scle Fibre ( cts, Centre nt.	of Freedo s of Mov Group Act e of gravi	vement: Str tion of Musc ty, Line of G	nd their Cla II ructure of les, Torque Fravity and in Human N	Assification. Muscle and & angle of their Alterat	its Classific	08 H cation,	<b>lours</b> Muscl
	of Movement Musculoske Tension, Mus Gravity: Effe and Movemen	, Degrees letal Basi scle Fibre ( cts, Centre nt.	of Freedo s of Mov Group Act e of gravi	vement: Str tion of Musc ty, Line of G	nd their Cla II ructure of les, Torque Fravity and in Human N	Assification. Muscle and & angle of their Alterat	its Classific	08 H cation, n Huma	<b>lours</b> Muscl an Bod
	of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific	, Degrees	of Freedo s of Mov Group Act e of gravi upporting	vement: Str tion of Musc ty, Line of G Base, role UNIT-	Ind their Cla II ructure of les, Torque Gravity and in Human N III III	Assification. Muscle and & angle of their Alterat Movement.	its Classifio pull. ions, Role ir Pulleys and t	08 H cation, n Huma 08 H their Fu	Hours Muscl an Bod An Bod
	of Movement Musculoskel Tension, Mus Gravity: Effe and Movemen Equilibrium: Simple Mach	, Degrees letal Basi scle Fibre ( cts, Centre nt. Effects, S hines: Lev ration, Inc	of Freedo s of Mov Group Act e of gravi upporting vers and t	vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t	Ind their Cla II ructure of les, Torque Fravity and in Human M III Ins and class their Func	Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class	its Classifio pull. ions, Role ir Pulleys and t ification &	08 H cation, n Huma 08 H their Fu theirs	lours Muscl an Bod an Bod
	of Movement Musculoskel Tension, Mus Gravity: Effe and Moveme Equilibrium: Simple Mach and classific relevance. Elasticity: S	, Degrees letal Basi scle Fibre ( cts, Centre nt. Effects, S hines: Lev ration, Inc	of Freedo s of Mov Group Act e of gravi upporting vers and t	om, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and to oke's Law	Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Func Springs a	Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class	its Classifio pull. ions, Role ir Pulleys and t ification &	08 H cation, n Huma 08 H their Fu theirs	lours Muscl an Bod an Bod
5. No.	of Movement Musculoskel Tension, Mus Gravity: Effe and Moveme Equilibrium: Simple Mach and classific relevance. Elasticity: S	, Degrees letal Basi scle Fibre ( cts, Centre nt. Effects, S hines: Lev ration, Inc	of Freedo s of Mov Group Act e of gravi upporting vers and t	vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t	Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Func Springs a	Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class	its Classifio pull. ions, Role ir Pulleys and t ification &	08 H cation, n Huma n Huma <b>08 H</b> their Fu theirs theirs	lours Muscl an Bod lours unction clinica
5. No.	of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance.	, Degrees	of Freedo s of Mov Group Act e of gravi upporting vers and t lined Pla	om, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t oke's Law UNIT-	Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Funct Springs and IV	Assification. Muscle and a & angle of their Alterat Movement. Ssification, F tions, class nd their pro	its Classific pull. ions, Role ir Pulleys and t ification &	08 H cation, n Huma n Huma <b>08 H</b> their Fu theirs theirs	lours Muscl an Bod an Bod
5. No.	of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance. Hydrostatics	, Degrees letal Basi scle Fibre ( cts, Centre nt. Effects, S nines: Lev ation, Inc Stress, Str s and Hydr	of Freedo s of Mov Group Act e of gravir upporting rers and t lined Pla rain, Hoo	m, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t oke's Law UNIT- ics: Princip	Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Funct Springs and IV Ies & its Ap	Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class nd their pro-	its Classific pull. ions, Role ir Pulleys and t ification & operties &	08 H cation, n Huma n Huma <b>08 H</b> their Fu theirs theirs	lours Muscl an Bod lours unction clinica
5. No.	of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance.	, Degrees letal Basi scle Fibre ( cts, Centre nt. Effects, S nines: Lev ation, Inc Stress, Str s and Hydr	of Freedo s of Mov Group Act e of gravir upporting rers and t lined Pla rain, Hoo	om, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Function anes and to oke's Law UNIT- ics: Principl ation, contra	Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Functor Springs and IV les & its Ap- indication,	Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class nd their pro-	its Classific pull. ions, Role ir Pulleys and t ification & operties &	08 H cation, n Huma n Huma <b>08 H</b> their Fu theirs theirs	lours Muscl an Bod lours unction clinica
S. No. S. No. S. No.	of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance. Hydrostatics	, Degrees letal Basi scle Fibre ( cts, Centre nt. Effects, S nines: Lev ation, Inc Stress, Str s and Hydr	of Freedo s of Mov Group Act e of gravir upporting rers and t lined Pla rain, Hoo	m, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t oke's Law UNIT- ics: Princip	Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Functor Springs and IV les & its Ap- indication,	Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class nd their pro-	its Classific pull. ions, Role ir Pulleys and t ification & operties &	08 H cation, n Huma 08 H their Fu theirs theirs 08 H	lours Muscl an Bod lours unction clinica

	BOOKS RECOMMENDED:						
	TEXTBOOKS:						
1.	Practical Exercise Therapy- Hollis and Cook						
2.	Principles of Exercise Therapy- Deena Gardiner						
3.	Joint structure and function–Norkin						
4.	Exercise Therapy–Carolyn Kisner						
	REFERENCE BOOKS:						
1.							
2.							
3.							

## STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to:

At the end of the semester the student will be able to: 1. 2. 3.

	SUBJ	ECT NA	ME:	SOCIOLOGY						
	SUBJI	ECT CO	DE:		PT 112					
			()	w.e.f. July	/ 2015)					
	Hrs. / Wk.			Credits	5		Total Marks	S		
L	Т	P	L	T	Р	TA	СТ	ESE		
2		0	2	1	0	15	25	60		
	3				THE COU		40	60		
They wi	ubject, the stud Il also learn the ons of various	dent will le e principle	earn abou es, produc	t the high tion, applic	frequency o cation, para	currents utilize				
			OUTL	INE OF TH	<b>IE COURS</b>	E:				
UNITS		TITL	E OF THE	E UNIT		MINIMU	M NUMBER	OF HOURS		
UNIT-I							08 Hours			
UNIT-II							08 Hours			
UNIT-III UNIT-IV							08 Hours 08 Hours			
UNIT-IV							08 Hours			
		Total (I	Minimal)				40 Hours			
		· · · · ·	/		• •					
S.No.				UNIT	-1			08 Hours		
3.NO.			vitiona of	<u>anaiology</u>	Sociology					
	<b>INTRODUCTION:</b> Definitions of sociology, Sociology as a science of society, uses of the study of sociology, application of knowledge of sociology in physiotherapy.									
	-	study of sociology, application of knowledge of sociology in physiotherapy. <b>SOCIOLOGY AND HEALTH:</b> Social Factors affecting health status, social consciousness								
	and perceptio				0					
	taking treatmo					•		•		
	people.									
				UNIT	-11					
S.No.								08 Hours		
	SOCIALIZATION: Meaning of socialization, influence of social factor on personality									
	socialization in	•								
	SOCIAL GRO		•	•	•			• .		
	health and sid	-		the primar	y groups ar	nd secondary	groups in t	ne hospital		
	and rehabilitat	uon settin(	js.	1 16117						
<u>0 N</u> -					-111			00 11		
S.No.				( (				08 Hours		
	<b>FAMILY &amp; COMMUNITY:</b> Influence of family on human personality, discussion of chares in the functions of a family on the individuals' health family and nutrition the effects of sickness on family and psychosomatic disease. Concept of community, role of rural and urban communities in public health, role of community, in determining beliefs, practices and home remedies in treatment.									
	<b>CULTURE:</b> C of sickness,	•		•						

	UNIT-IV						
S.No.			08 Hours				
	Soc	cial Change: Factor of Social change, human adaptation and social	change, socia				
	cha	nge and stress, social change and deviance, social change and health pr	ograms the role				
	of s	ocial planning in the improvement of health and in rehabilitation.					
	Org	ganization: Goals and functions, organization as systems, organization	tional impact -				
	indi	vidual, family community, social structure, power and control in organiz	zations, feminis				
	perspectives on organizations.						
		UNIT-V					
S.No.			08 Hours				
	Social Problems of the Disabled: Consequences of the following social problems in						
	relation to sickness and disability remedies, to prevent these problems.						
	a. Population explosion						
	b. Poverty and unemployment						
	C.	Beggary					
	d.	Juvenile delinquency					
	е.	Prostitution					
	f. Alcoholism						
	g. Problems of women in employment						
	h. Social of the health profession						
	i. Various perspectives, power and autonomy in professions, women and professions.						

	BOOKS RECOMMENDED:						
	TEXTBOOKS:						
1.	1. Sociology – Sachdeva						
2.	Sociology for Physiotherapist / Dibyendunarayan Bid						
3.	Textbook of Sociology for Physiotherapy- K.P. Neerya						
	REFERENCE BOOKS:						
1.							
2.							

At th	At the end of the semester the student will be able to:							
1.								
2.								
3.								
4.								

		208	JECT NA	ME:	ENVIRONMENTAL STUDIES					
		SUB	JECT CC	DE:		ES 101				
				(	w.e.f. July	2015)				
	Н	lrs. / Wk	•	```	Credits	,		Total N	Marks	
L		Т	Р	L	Т	Р	TA	C	T	ESE
2		1	0	2	1	0	15	2	:5	60
		3			3			40		60
					VES OF T	HE COU	JRSE:			
In this s	subje	ct, the st	udent will le	arn about	the					
				OUTL	INE OF TH	E COURS	E:			
UNITS	5		TITL	E OF TH	E UNIT		MINIMU		BER C	F HOUR
UNIT-I										
UNIT-II										
UNIT-III										
UNIT-IV										
UNIT-V			<b>T</b> = ( = 1 (							
			l otal (	Minimal)						
					UNIT-					
S.No.		TURAL			RENEW	ABLE	AND N	ON-		
	RENEWABLE RESOURCES:									
		tural reso	ources and a	associated	•					
		tural reso Water	ources and a <b>Resources</b> :	ssociated Use and	over utilizati		ace and grou		r,	
	Nat <b>a.</b>	tural reso Water floods	ources and a <b>Resources:</b> drought, co	associated Use and nflicts ove	over utilizati r water, dan	ns- benefit	s and probler	ns.		
	Nat	tural reso Water floods Minera	ources and a Resources: drought, co I Resource	associated Use and nflicts ove s: Use and	over utilizati r water, dan d exploitatio	ns- benefit	0	ns.		and usin
	Nat a. b.	tural reso Water floods Minera minera	ources and a Resources: drought, co I Resources s resources	ussociated Use and nflicts ove s: Use and , case stud	over utilizati r water, dan d exploitatio dies.	ns- benefits n, environ	s and probler mental effect	ms. ts of ext	racting	
	Nat <b>a.</b>	tural reso Water floods Minera minera Food F	ources and a Resources: drought, co I Resources s resources Resources:	associated Use and nflicts ove s: Use and , case stud World food	over utilizati r water, dan d exploitatio dies. d problems,	ns- benefits n, environ changes c	s and probler mental effect aused by ag	ms. ts of extr riculture	racting and ov	vergraziną
	Nat a. b.	Water floods Minera minera Food F effects	ources and a Resources: drought, co I Resources s resources: df modern a	associated Use and nflicts ove s: Use and , case stud World food	over utilizati r water, dan d exploitatio dies. d problems,	ns- benefits n, environ changes c	s and probler mental effect	ms. ts of extr riculture	racting and ov	vergraziną
	Nat a. b. c.	tural reso Water floods Minera minera Food F effects studies	burces and a Resources: drought, co I Resources s resources Resources: of modern a	associated Use and nflicts ove s: Use and , case stud World food agriculture	over utilizati r water, dan d exploitatio dies. d problems, , fertilizer -p	ns- benefits n, environ changes c esticide pr	s and probler mental effect aused by ag oblems, Wa	ms. ts of extr riculture ter loggi	racting and or ng, Sa	vergrazing Ilinity, cas
	Nat a. b.	Water floods Minera minera Food F effects studies Energy	Arrow and a second seco	associated Use and nflicts ove s: Use and , case stud World food agriculture s: Growin	over utilizati r water, dan d exploitatio dies. d problems, , fertilizer -p	ns- benefit: n, environ changes c esticide pr needs, re	s and probler mental effect aused by ag oblems, Wa newable an	ms. ts of extr riculture ter loggi	racting and or ng, Sa	vergrazing Ilinity, cas
	Nat a. b. c.	tural reso Water floods Minera minera Food F effects studies Energy source	ources and a Resources: drought, co I Resources s resources desources: of modern a	associated Use and Inflicts ove s: Use and , case stud World food agriculture es: Growin ernate ene	over utilizati r water, dam d exploitatio dies. d problems, , fertilizer -p ng energy rgy sources,	ns- benefit: n, environ changes c esticide pr needs, re case stud	s and probler mental effect aused by ag oblems, Wa newable an	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergraziną Ilinity, cas ple energ
	Nat a. b. c. d.	Water floods Minera minera Food F effects studies Energy sources Land F	ources and a Resources: drought, co I Resources s resources desources: of modern a	associated Use and Inflicts ove s: Use and case stud World food agriculture s: Growin ernate ene Land as a	over utilizati r water, dam d exploitatio dies. d problems, , fertilizer -p ng energy rgy sources,	ns- benefit: n, environ changes c esticide pr needs, re case stud	s and probler mental effect aused by ag oblems, Wa newable an ies.	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergraziną Ilinity, cas ple energ
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	Nat a. b. c. d.	Water floods Minera minera Food F effects studies Energy sources Land F erosion • Ro	burces and a Resources: drought, co I Resources is resources cof modern a modern a m	associated Use and Inflicts ove s: Use and case stud World food agriculture s: Growin ernate ene Land as a fication.	over utilizati over utilizati or water, dam d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergraziną Ilinity, cas ple energ
<u>S.No.</u>	Nat a. b. c. d. e.	Water floods Minera minera Food F effects studies Energy sources Land F erosion • Ro	Arrows and a Resources: drought, co I Resources: s resources: of modern a resources: of modern a resources: and deserti le of an indivi- uitable use of	associated Use and Inflicts ove s: Use and case stud World food agriculture s: Growin ernate ene Land as a fication.	over utilizati over utilizati d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergrazing Ilinity, cas ple energ
	Nat a. b. c. d. e.	Water floods Minera minera Food F effects studies Energy sources Land F erosior • Ro • Eq	A cources and a cources and a cources and a cources: drought, cources	associated Use and Inflicts ove s: Use and case stud World food agriculture s: Growin ernate ene Land as a fication. <i>v</i> idual in co of resource	over utilizati over utilizati d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergrazing Ilinity, cas ple energ
a.	Nat         a.         b.         c.         d.         e.         EC         Con	Water floods Minera minera Food F effects studies Energy sources Land F erosion ● Ro ● Eq	Arrows and a Resources: drought, co I Resources: s resources: of modern a resources: of modern a resources: and deserti le of an indivi- uitable use of	associated Use and Inflicts ove s: Use and case stud World food agriculture es: Growin ernate ene Land as a fication. /idual in co of resource	over utilizati r water, dam d exploitatio dies. d problems, , fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair <b>UNIT-</b>	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergrazing Ilinity, cas ple energ
a. b.	Nat a. b. c. d. e. EC	Water floods Minera minera Food F effects studies Energy sources Land F erosion ● Ro ● Eq COSYST ncept of ucture an	Arrows and a Resources: drought, co I Resources: s resources: of modern a r Resources: and deserti le of an indivi uitable use of EMS: an Ecosyste	associated Use and Inflicts ove s: Use and case stud World food agriculture s: Growin ernate ene Land as a fication. vidual in co of resource	over utilizati over utilizati r water, dam d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair <b>UNIT-</b>	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergrazing Ilinity, cas ple energ
a. b. c.	Nat a. b. c. d. e. EC	Water floods Minera minera Food F effects studies Energy sources Land F erosion • Ro • Eq COSYST ncept of ucture ar oducer C	A resources aresources: aresources: aresources: aresources: aresources: aresources: and deserting and d	associated Use and Inflicts ove s: Use and case stud World food agriculture es: Growin enate ene Land as a fication. /idual in co of resource m. of an Ecos d decompo	over utilizati over utilizati r water, dam d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair <b>UNIT-</b>	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergrazing Ilinity, cas ple energ
S.No. a. b. c. d. e.	Nat a. b. c. d. e. EC Con Stru Pro Ene	Water         floods         Minera         minera         Food F         effects         studies         Energy         sources         Land F         erosion         • Ro         • Eq         COSYST         ncept of         ucture ar         oducer C         ergy flow	Arrows and a Resources: drought, co I Resources: s resources: of modern a r Resources: of modern a r Resources: and deserti le of an individuitable use of EMS: an Ecosyste onsumer and	associated Use and Inflicts ove s: Use and case stud World food agriculture es: Growin enate ene Land as a fication. /idual in co of resource m. of an Ecos d decompo	over utilizati over utilizati r water, dam d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair <b>UNIT-</b>	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergraziną Ilinity, cas ple energ
a. b. c. d.	Nat a. b. c. d. e. EC Con Stru Pro Ene	Water         floods         Minera         minera         Food F         effects         studies         Energy         sources         Land F         erosion         • Ro         • Eq         COSYST         ncept of         ucture ar         oducer C         ergy flow	Arrows and a Resources: drought, co I Resources: s resources: of modern a r Resources: and deserti le of an individuate uitable use of EMS: an Ecosyste onsumer and in the Ecos	associated Use and Inflicts ove s: Use and case stud World food agriculture es: Growin enate ene Land as a fication. /idual in co of resource m. of an Ecos d decompo	over utilizati over utilizati r water, dam d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair <b>UNIT-</b> system. osers.	ns- benefit: n, environ changes c esticide pr needs, re case stud Land degra of natural in nable life s	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergraziną Ilinity, cas ple energ
a. b. c. d.	Nat a. b. c. d. e. EC Cor Stru Pro Ene Eco	Water         floods         Minera         minera         Food F         effects         studies         Energy         sources         Land F         erosion         • Ro         • Eq         SOSYST         ncept of         ucture ar         oducer C         ergy flow         ological S	A Resources: drought, co I Resources: a resources: a resources: a resources: a resources: a resources: a nd deserti le of an indivi- uitable use of EMS: an Ecosystem onsumer and in the Ecosion.	associated Use and Inflicts ove s: Use and case stud World food agriculture es: Growin ernate ene Land as a fication. <i>v</i> idual in co of resource m. of an Ecos d decompo ystem.	over utilizati over utilizati r water, dam d exploitatio dies. d problems, fertilizer -p ng energy rgy sources, a resource, l onservation es for sustair <b>UNIT-</b>	ns- benefits n, environ changes c esticide pr needs, re case stud Land degra of natural n hable life s II	s and probler mental effect aused by ag oblems, Wa newable an ies. adation, Mar	ms. ts of extr riculture ter loggi d nonre	and ov ng, Sa	vergraziną Ilinity, cas ple energ

b.	Bio-Geographical classification of India.						
с.	Value of Bio-diversity: Consumptive use, productive use, Social, ethical, aesthetic and option						
	values						
d.	Biodiversity at Global, National & Local levels.						
е.	Hotspots of Biodiversity						
f.	Threats to Biodiversity: Habitat Loss, Poaching of Wildlife, Man-Wildlife Conflicts						
	UNIT-IV						
S.No	D. ENVIRONMENTAL POLLUTION:						
a.	Definition, Causes, effects and control measures of-Air Pollution, Water Pollution, Soil						
	Pollution, Marine Pollution, Noise Pollution, Thermal Pollution, Nuclear Hazards						
b.	Solid Waste Management: Causes, effects and control measures of urban and Industrial						
	Wastes.						
С.	Role of an Individual in prevention of pollution.						
d.	Pollution case studies						
е.	Disaster Management: floods, earthquake, cyclones and landslides.						
	UNIT-V						
S.No							
а.	Resettlement and Rehabilitation of people; its problems and concerns, case studies.						
b.	Environmental ethics: issues and possible solutions						
C.	Green house effect and global Warming, effects of acid Rain and their remedial measures						
	and ozone Layer depletion.						
	HUMAN POPULATION AND THE ENVIRONMENT:						
a. b.	Population growth variation among nations, Population Explosion, Family welfare programme Environment and Human Health						
-	Human Rights						
c. d.	HIV/AIDS, Women and Child welfare						
и. е.	Role of Information Technology in Environment and Human Health, Case studies						
с.	BOOKS RECOMMENDED:						
	TEXTBOOKS:						
1.	Agarwal, K.C. 2001 Environmental; Biology, Nidi Pub. Ltd.Bikaner.						
2.	Bharaucha Erach, The Biodiversity of India, Mappin Pub. Pvt. Ltd., Ahemdabad- 380, India.						
3.	Brunner R.C. 1989. Hazardous waste incineration, Mc Graw Hill.						
4.	Clark R.S. Marine Pollution, Clanderon Press Oxford (TB).						
5.	Cunningham W.P.2001.Cooper, T.H. Gorhani, E&Hepworth, Environmental encyclopedia, Jaicol						
6.	Publication House, Mumbai. De . A.K. Environmental chemistry Willey Eastern Limited.						
	REFERENCE BOOKS:						
1.							
2.							

At the end of the semester the student will be able to:

 1.

 2.

 3.

SU	<b>BJECT NA</b>	ME:	ADVANCE PROFESSIONAL COMMUNICATION					
SU	BJECT CO	DE:	LN 202					
-			(v	v.e.f. July 2	2015)			
	Hrs. / Wk.			Credits		Тс	otal Marks	
L	Т	Р	L	Т	Р	ТА	СТ	ESE
2		0	2	1	0	15	25	60
	3	00		3		40	)	60
In this s	ubject, the stu			/ES OF T the		<b>KSE</b> :		
			OUTLI	NE OF THE	COURSE:			
UNITS		TITLI	E OF THE	UNIT		MINIMUM N	UMBER OF	HOURS
UNIT-I							07 Hours	
UNIT-II	WRITING S						07 Hours	
UNIT-II				TERVIEW S	KILLS		07 Hours	
UNIT-I UNIT-V			LLS				07 Hours 04 Hours	
	TROJECT	Total (N	linimal)				B2 Hours	
			,					
<u></u>				UNIT-I				
S.No.	READING 8							lours
	Ways to impr Skills & Featu					ortance of Ski	m Reading,	Listening
				UNIT-I		ve Listerning		
S.No.	WRITING S	KILLS		•••••			07 H	lours
	C V & Resum				Covering let	ter,		
	Precis: Princi							
	Paragraph wr	riting, Deve	opment c	* .				
0.11							07.1	
S.No.	GROUP DIS							lours
	Pitfalls in a G		aning & Sig	gnificance, I	How to pre	pare & praction	ce for GD,	Common
			skille & T	Techniques	Proparatio	n, Negative	Intorviow F	actors &
	Interview Tips			coninques,	Перагано	n, negative		
				UNIT-I\	/			
S.No.	PRESENTA	TION SK	ILLS				07	Hours
						Organizing C	ontents, Au	dio-Visual
	Aids, Nuance	es of Delive	ery, Body l			nics.		
				UNIT-V				
S.No.	PROJECT							Hours
	Teacher/Inst	ructor. The	y will rese	earch it & sul		vould be assi documented r	•	•
	pages by the			RECOM	MENDE	).		
				TEXTBOO		-		
	aman, Meenak kford University		arma, Sar			munication: P	rinciples ar	nd Practice
1.07		,						

2.	Konar, Nira. Communication Skills For Professionals, PHI Learning Pvt. Ltd – 2011					
3.	Board of Editors. Written and Spoken Communication in English, University Press-2007					
4.	Lata, Pushp & Kumar, Sanjay. Communicate or Collapse: A Handbook of Effective Public Speaking, Group Discussions and Interviews, PHI Learning Pvt. Ltd -2011					
5.	Duck, Steve & McMahan, David T. <i>The Basics of Communication : A Relational Perspective</i> , Sage Publication-2012					
6.	Laws, Anne- Presentations, Orient Black Swan-2011					
7.	O'Connor, J. D. Better English Pronunciation, Universal Books Stall-1991					
8.	Anderson, Marilyn, Nayar, Pramod K. & Sen, Madhuchhanda . <i>Critical Thinking, Academic Writing and Presentation Skills</i> , Pearson-2009					
	REFERENCE BOOKS:					
1.						
2.						

At th	At the end of the semester the student will be able to:							
1.								
2.								

	SUBJ	ECT NA	ME:		HUMAN ANATOMY-II LAB			
	SUBJECT CODE:					<b>PT</b> 1	13	
			()	v.e.f. July	2017)			
	Hrs. / V	Vk.		Credits		Т	otal Marks	
L	Т	Р	L	Т	Р	ТА	СТ	ESE
0	0	2	0	0	2	30	30	40
	4			1		6	0	40
		OB	JECTI	/ES OF 1	THE COU	IRSE:		
		C	DUTLIN	E OF TH	E COUR	SE:		
S.No.	TITLE OF T	HE UNIT						Hours
1.	1. Demonstration of bones of Thorax, abdomen & pelvis and Head & Neck region.							
2.	Identification,	side dete	erminatior	n and exte	rnal featur	es of viscera	a of Thorax,	
	abdomen and	d pelvis.						
3.	Identification	of structure	e on prose	ected parts	of Head and	d neck region.		

4. Demonstration of parts and external features of brain and spinal cord.5. Surface landmarks of Thorax, abdomen & pelvis and Head and Neck region.

4.

6. Demonstration of models of organs and viscera of genitourinary system.

### Total (Minimal)

	BOOKS RECOMMENDED:
	TEXTBOOKS:
1.	Anatomy and physiology by Smout and McDowall (Edwad Arnold).
2.	Primary castes anatomy by Basmajian (Williams and Willkins Co. Batlimore).
3.	An Introduction of fundamental Anatomy by David Sinclair.
4.	Human Anatomy by B D Chaurasia's - All 3 volumes.
5.	Limbs of Dr. Kadasana - All 3 volumes.
6.	Anatomy of Grant
7.	Human Embryology by Hamilton Body and Mossaman.
8.	Neuro-Anatomy – Inderbir Singh.
	REFERENCE BOOKS:
1.	
2.	
3.	
4.	
5.	
	STUDENT LEARNING OUTCOMES/OBJECTIVES:
	e end of the semester the student will be able to:
1.	
2. 3.	
5.	

-							1			
			BJECT N				HU	JMAN PH	YSIOLOGY	'-II LAB
		SU	BJECT (	CODE:				F	PT 114	
				()	w.e.f. July	2015)				
		Hrs. / Wk.			Credits	-			Total Marks	
L		Т	Р	L	Т	P		ТА	СТ	ESE
0		0	2	0	0	2		30	30	40
		2			1				0	40
			OB	JECIN	VES OF	I HE C	:00	RSE:		
								05		
			C	DUILIN	E OF TH	E CO	UK	SE:		
S.No	). <sup> </sup>	TITLE OF TH	IE UNIT							Hours
1.		Recording of I	CVS, Pulse	Examina	ition					
2.		Blood Pressur	e Measure	ment						
3.		Effect of postu	ire on SBP	and DBP	)					
4.		Effect of exerc	ise on SBF	ond DB	Р					
5.		ECG								
6.	(	Cranial Nerve	Examinatio	on						
7.		Sensory Exam	nination							
8.		Motor Examin	ation							
9.	1	Vitalography								
				Tot	al (Minimal)					30
				POOK	S RECO			<u>.</u>		
				BUUN	TEXTBO		NDE	D.		
1.	ΤΔ	xtbook of Phys	siology: Gu	vton	IEAIDU	JNJ.				
2.		xtbook of Phys								
3.		man Physiolog								
4.	Ess	sentials of Me	dical Physic	ology: K.S	Semubuling	am,				
5.			-							
ļ				REF	ERENCE	BOOK	(S:			
1.										
2.										
3. 4.										
4.										

At th	he end of the semester the student will be able to:
1.	
2.	
3.	

	SUBJE	CT NAM	E:		BASIC OF	EXERCIS	ETHERAP	LAB
	SUBJE	CT COD	E:	PT 115				
			()	w.e.f. J	uly 2015)			
	Hrs. / Wk.			Crea	lits	Fotal Marks		
L	Т	Р	L	Т	Р	TA	СТ	ESE
0	0	2	0	0	2	30	30	40
	2			1		6	0	40
		OE	SJECII	VES O	F THE COL	JRSE:		
						_		
			OUIL	NE OF	THE COURSE			
S.No	. TITLE OF TH							Hours
1.	Mechanical Pr	inciples ap	plied in F	hysioth	erapy like force	, Torque, Cer	tre of Gravity,	
	etc.							
2.	Demonstration	n of differer	nt types of	fleavers	s in the human	body.		
3.	Demonstration	n of differer	nt types of	f pulleys	and strings us	ed in Physioth	nerapy.	
4.	Demonstration	n of Archir	nedes' P	rinciple	of floatation a	and Bernoulli's	s Theorem in	
	Hydrotherapy.							
5.	Demonstration	n of axial a	nd pendul	ar susp	ension.			
			Tot	al (Minir	nal)			30
			BOOK	S REC	OMMENDE	D:		
				TEXTE	BOOKS:			
	Practical Exercise							
	Principles of Exer			Gardine	r			
3.	Joint structure and	d function—I	Norkin					
4.	Exercise Therapy	–Carolyn K	isner					
			REF	EREN	CE BOOKS:			
1.								
2.								
	STL	JDENT L	EARN	NG O	UTCOMES/	OBJECTI	/ES:	
At the	end of the seme	ster the stu	udent will	be able	to:			
1.								
2.								
3.								

4.

## SCHEME OF EXAMINATION & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

			S	SCHEN		F EXA	MINA		N			
					TH	IEORY	′ <b>:</b>					
				INTER	NAL A	SSES	SMEN	T (IA)				
						) Marks		( )				
CI	LASS 1	EST (CT	)			TEA	CHER	ASSE	SSM	ENT (	TA)	
MSE-1							A-3	A-4	Attendance			
25	2	25	25	5 5		5	5	5	5	5	5	5
			EN		ESTER	EXAM	INATIO	DN (ES	SE)			
					60	) Marks	5					
				INTER				T (IA)				
						s Test (	CT)					
	1: 25 Ma	arks			3 (50%)				Tim	ne: 1:3	0 Hou	-
Q.No.					Models							Marks
1.	Multip	oles Choid	ce Ques		-	-		11			1	.5X5=7.5
					Juestic	on from		Unit	1>			4 5
	a. i)			ii) ii)			iii) iii)		iv) iv)			1.5 1.5
	b. i)			(II) ii)					iv)			1.5
	c. i) d. i)			ii)		iii) iii)			iv)			1.5
	e. i)			ii)		 iii)			iv)			1.5
2.				,			,		••)		2	2.5X3=7.5
	a.									-	2.5	
	b.									2.5		
	С.											2.5
	d.											2.5
	е.											2.5
3.	Long Questions (any two)										5X2=10	
	a.	a.										5
	b.											5
	C.											5
				End Se				(ESE)				
	MM: 6	0 Marks				21 (35	%)			Time		Hours
Q.No.					Models	6					Mark	
1.	Multip	ole Choice	e Quest		<u>)</u>			1 1				1X12=12
					JUESTIC	on from		Unit				4
	a. b.	i) i)		ii) ii)			iii) iii)		iv) iv)			<u>1</u> 1
	D. C.	i)		(II) ii)			iii)		iv)			1
	с. d.	i)		(ii) iii			iii)		iv)			1
	и. е.			ii)			iii)		iv)			1
	f.	i)					iii)		iv)			1
	g.						iii)		iv)			1
	h.	i)		ii)			iii)		iv)			1
	i.	i)		ii)			iii)		iv)			1
	I	,	L	,		1	•				I	

	j.	i)	ii)	iii)	iv)	1			
	k.	i)	ii)	iii)	iv)	1			
	l.	i)	ii)	iii)	iv)	1			
2.	Short Q	3X4=12							
	a.					3			
	b.					3			
	C.					3			
	d.					3			
	е.					3			
	f.					3			
3.	Short Q	uestions (any	Two)			3X4=12			
	a.					3			
	b.					3			
	C.					3			
	d.					3			
	е.					3			
	f.					3			
4.	Long Qu	uestions (any	Two)			6X2=12			
	а					6			
	b.					6			
	С.					6 6X2=12			
4.	Long Qu	Long Questions (any Two)							
	а.					6			
	b.					6			
	С.					6			

## STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

## (BPT - II YEAR/ III SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



## INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

### Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

## STUDY & EVALUATION SCHEME BACHELOR OF PHYSIOTHERAPY (BPT)

## (w.e.f. July 2020)

### II-Year

### **III-Semester**

S.	Code	Name of the Subject	F	Period	s	Total	E	valuati	on Sche	eme	Subject
No.	No.		-	_		Credits	5	Session	nal	Exam	Total
			L	т	P		CT	TA	Total	ESE	
1.	PT 201	Pathology	2	1	0	3	40	20	60	40	100
2.	PT 202	Microbiology	2	1	0	3	40	20	60	40	100
3.	PT 203	Exercise therapy	3	1	0	4	40	20	60	40	100
4	PT 204	Electrotherapy	3	1	0	4	40	20	60	40	100
5.	PT 205	Surface Anatomy & Palpation Skills	2	1	0	3	40	20	60	40	100
6.	PT 206	Psychology & Experimental Psychology	2	1	0	3	40	20	60	40	100
7.	PT 207	Exercise therapy-Lab	0	0	4	2	40	20	60	40	100
8.	PT 208	Electrotherapy-Lab	0	0	4	2	40	20	60	40	100
9.	PT 209	Surface Anatomy & Palpation Skills-Lab	0	0	2	1	40	20	60	40	100
		Total	14	06	10	25	360	180	540	360	900

L: Lecture	T: Tutorials	P: Practical	C: Credit	CT: Class Test
TA: Teacher Assess	ment		ESE: End Semester Examin	ation
Sessional Total: C Assessment	lass Test + Teacher		Subject Total: Sessional Examination (ESE)	Total + End Semester

### AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- **6.** To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

## SYLLABI OF BACHELOR OF PHYSIOTHERAPY (BPT - II YEAR/ III SEMESTER)

### GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

### **OBJECTIVES:**

### A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

#### B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

### C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

					-					
	SUBJ	ECT NAI	ME:			PATH	HOLOGY			
	SUBJ	ECT CO	DE:		PT 201					
				(w.e.f. Ju	ly 2017)					
	Hrs. / Wk.			Credits			Total Marks			
L	Т	Р	L	Т	Р	ТА	СТ	ESE		
2	1	0	2	1	0	15	25	60		
	3			3		4	0	60		
		0	BJECT	IVES OF	THE CO	URSE:				
emphasi	is will be place scular system	ed on descr	ption of r ous syste	nusculoske m, as thes	letal anator	ny which inclued to the app	udes bones, j	ures. Particular pints, muscles, hysiotherapy in		
UNITS	TITLE OF 1		UUTE							
UNIT-I	CELL INJUR	-			15		08 Hours			
UNIT-II	VASCULAR						08 Hours			
UNIT-III						08 Hours				
UNIT-IV	BONES, JOINTS & MUSCULAR SYSTEM     08 Hours       HEPATO-BILIARY, ENDOCRINE & INTEGUMENTARY     08 Hours       SYSTEM     08 Hours									
UNIT-V	CENTRAL N	ERVOUS S	/STEM				08 Hours			
		Total (Mi	nimal)				40 Hours			
				UNI	T-I					
S. No.	CELL INJU	RY, INFLA	MMATI	ON & NEO	PLASMS:	1	(	)8 Hours		
1.	Cells: Brief gangrene.	out line	of cell i	njury, hyp	ertrophy,	atrophy, de	generation,	necrosis and		
2.	Inflammatio exudates, gra		n, vascula	ar and cellu	ılar phenon	nena, differen	ice between t	ransudate and		
3.	Neoplasm: cancer pain s		character			and maligna	nt tumor, spi	read of tumor,		
				UNI						
S. No.	VASCULAF							Hours		
1.	Volkmann's i				rrnage, En	idolism, I hro	omposis, Infra	action, Shock,		
2.					ding disorde	er- Hemophilia	Э.			
3.			•	-	0	•		therosclerosis,		
<b>.</b>	coronary hea	-	-		-					
4.	-					chiectasis, Ei	mphysema.			
				UNI	Γ-ΙΙΙ					
S. No.	BONES, JC	INTS & M	USCUL				08	Hours		
	<u> </u>						1			

1.	Bones: Etiopathogenesis and gross pathology of fallowing conditions: Rickets/Osteomalacia
	Osteoporosis, Osteomyelitis, Hyperparathyroidism.
2.	Joint: Osteoarthritis, Rheumatoid Arthritis, Gout, Spondyloarthopathy (including Ankylosing
	Spondylitis), Osteonecrosis, Paget's disease.
3.	Muscles: Myositis ossificans, Myofascial Pain syndrome, Septic arthritis.
	UNIT-IV
S. N	o. HEPATO-BILIARY, ENDOCRINE & INTEGUMENTARY 08 Hours SYSTEM:
1.	Hepato-Biliary System: Jaundice Types, etiopathogenesis and diagnosis.
2.	Endocrine: Diabetes Mellitus, Non Neoplastic lesion of thyroid-Thyrotoxicosis, Myxedema.
3.	Skin: Brief outline of Scleroderma, Psoriasis, Pressure Ulcer, and Burn.
	UNIT-V
S. N	· · · · · · · · · · · · · · · · · · ·
<u>3. N</u> 1.	CNS: Etiopathogenesis and gross pathology of fallowing conditions- Meningitis, Encephalitis
1.	
	Parkinson's, Amyotrophic lateral sclerosis, Ataxias, Multiple sclerosis, Neuropathies (Carcoa
	Marie Tooth disease, Compression and Entrapments, diabetics G.B. Syndrome), malformation
	CVA, Extredural and Intra Dural Hematoma.
2.	Muscle Neuropathies: Poliomyelitis, Myopathies, Myasthenia gravis, Muscular dystrophy.
	BOOKS RECOMMENDED:
	TEXTBOOKS:
1.	Basic Patho – Kumar and Clark
2.	Text book of Pathology - by Harsh Mohan
3.	Textbook of Pathology By Boyd
4.	Pathologic basis of deseases by Cotran, Kumar, Robbins
<del>т</del> . 5.	General Pathology – by Bhende
5.	REFERENCE BOOKS:
1.	REI ERENGE BOORG.
2.	
3.	
4.	
5.	
6.	
7.	
8.	
	STUDENT LEARNING OUTCOMES/OBJECTIVES:
At the	e end of the semester the student will be able to:
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3. 4.	

		BJECT N				MIC	ROBIOLO	GY		
	SU	BJECT C	ODE:				PT 202			
			(	w.e.f. July	/ 2015)					
	Hrs. / Wk.			Credits			Total Marks	S		
L	Т	Р	L	Т	Р	TA	СТ	ESE		
2	1	0	2	1	0	15	25	60		
	3			3			40	60		
		OB	JECTI	VES OF	THE CO	URSE:				
human Microbio infection underst	nd of the cours infections, pology involves as and precaut anding of Micr	ertaining to the study ionary mea obiology of o the patien	o Immu of con sures to disease	nology, Vi nmon orga protect on s is essen	rology, Ba nisms ca e from ac tial to inst	acteriology, using diseas quiring infect tute appropri	& misleniou es including ions. The kno	s condition. nosocomial owledge and		
		C	DUTLIN	IE OF TH		RSE:				
UNITS	TITLE OF	THE UNIT				MINIMU	M NUMBER	OF HOURS		
UNIT-I	JNIT-I GENERAL MICROBIOLOGY							5		
UNIT-II	JNIT-II IMMUNOLOGY							5		
UNIT-II	JNIT-III BACTERIOLOGY						08 Hours	6		
UNIT-IV VIROLOGY 08 H							08 Hours	5		
UNIT-V	MISLANE	OUS						08 Hours		
		Total (M	inimal)				40 Hours			
					• •					
				UNIT	-1					
S. No.	GENERAL						0	8 Hours		
<u>1.</u>	Introduction a					Orrestla				
2.	Morphology, identification	Nutritional	Req	uirements,I	vietabolism	n, Growth,	Classific	cation and		
3.	Sterilizations		ction.							
0.	Otomizationio			UNIT	_11					
S. No.	IMMUNOLO	CV.					08	Hours		
<u>1.</u>			ens anti	body antig	en-Antiboo	ly Reaction		08 Hours		
2.	Structure and							eyetein.		
3.	Immunodefici									
<u>.</u>		<u></u>	<u>, , , , , , , , , , , , , , , , , , , </u>	UNIT						
S. No.	BACTERIO	OGY					08	Hours		
<u>3. No.</u> 1.	Staphylococc		COCCUS F	neumococ	cus. Neiss	eria				
2.	Cornybacteriu		-							
3.	Enterobacteri									
<u>4.</u>	Mycobacteria									
	,			UNIT-	IV					
S. No.	VIROLOGY	1					80	Hours		
<u>3. No.</u> 1.	General Char		nd Class	sification of	Virus					
2.	Virus-Host Int									
<u>2.</u> 3.	DNA and RN									
<u>4.</u>	Measles, Mur		a, Polio	Influenza. F	Rabies. De	ngue. Hepatit	is. HIV			
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	UNIT-IV	
S. No.	MISLANEOUS:	08 Hours
1.	Medical Mycology	
2.	Parasitology	
3.	Normal Microbial Flora of The Human Body	
4.	Hospital Acquired Infection	
5.	Universal Precautions	
	BOOKS RECOMMENDED:	
	TEXTBOOKS:	
<b>1</b> . T	extbook of Parasitology- K. D. Chatterjee (12 <sup>th</sup> Ed.)	
	ext Book of Microbiology - Paniker (9 <sup>th</sup> Ed.)	
<b>3.</b> E	ssentials of Medical Microbiology- Sastry Apurba Shankar (1 <sup>st</sup> Ed.)	
<b>4.</b> T	extbook of Microbiology - P.Chakraboty	
<b>5.</b> T	extbook of Microbiology – Anantnarayan	
	REFERENCE BOOKS:	
1.		
2.		
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At th	e end of the semester the student will be able to:
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	SUBJE	ECT NAM	ME:		E	EXERCISE	THERA	PY
	SUBJE	ECT COI	DE:			PT	203	
	Hrs. / Wk.			Credits		-	otal Mark	S
L	T	Р	L	T	Р	ТА	СТ	ESE
3	1	0	3	1	0	15	25	60
	4			4		4	)	60
		OB	JECTI	VES OF 1	THE COL	JRSE:		
positions acquire t skill of a therapeu exercise. measure motion & & their ef UNIT-I UNIT-I UNIT-II UNIT-III UNIT-III	THERAPEU	rate move of various arious mar / demerits ill of asses els. Recall o understar peutic gym C HE UNIT TION TO E MOTION & JSCLE TES TIC GYMN	ments in tools of nual music of the sa ssment o the basic nd the ap nasium, 8 <b>DUTLIN</b> <u>XERCISE</u> GONION STING (M ASIUM A	terms of v the Goniom cle testing p me and also f Gait, Pos plication of a suspension <b>IE OF TH</b> THERAPY METRY METRY MMT) & STR ND SUSPE	various Ana netry and morocedures of know abo ture and us of Physics such princion therapy u E COUR	atomical plane heasure range & describe th ut various too ses of Ambul related to me ples to the sin used in therap <b>SE:</b>	es. To des of motion le Physiolo ls used in s atory devic chanics of nple equip eutics.	Scribe & also begical effects strengthening ces and the f movement ment design Minimum ber of Hours 08 Hours 08 Hours 08 Hours 08 Hours
UNIT-V	POSTURE, O		AMBULA Total (Mir		INING			08 Hours 40 Hours
			TOtal (IVIII	iiiiaij				40 110015
				UNIT	-1			
S. No.	INTRODUC	TION TO I	EXERCI	SE THERA	PY:		08	Hours
1.	starting pos effects & use	ition & de	erived po iotherap	osition incl y.	luding join	n: Brief desc it positions, otion & Class	muscle w	/ork, stabili
2.		f applicatic ements sted mover ovement	on, indicat	tion, contrai		effects & uses	of the follo	
2.	Techniques o 1. Active mov 2. Active assi 3. Passive mo	f applicatic ements sted mover ovement	on, indicat	tion, contrai	ndication, e	effects & uses	of the follo	
	Techniques o 1. Active mov 2. Active assi 3. Passive mo	f applicatic ements sted mover ovement ovement	n, indicat	UNIT-	ndication, e	effects & uses	of the follo	
<u>S. No.</u> 1.	Techniques o 1. Active mov 2. Active assi 3. Passive mo 4. Resisted m <b>RANGE OF</b> <b>Range of Mo</b> End feels of t	f applicatic ements sted mover ovement ovement <b>MOTION</b> tion: Defir he Joints.	n, indicat ment <b>&amp; GONI</b> hition of R	UNIT- OMETRY: Range of Mc	ndication, e	al range of mc	tion, norm	wing- 08 Hours al & abnorm
<u>S. No.</u> 1.	Techniques o 1. Active mov 2. Active assi 3. Passive mo 4. Resisted m <b>RANGE OF</b> <b>Range of Mo</b> End feels of ti <b>Goniometry:</b>	f application ements sted movement ovement ovement <b>MOTION</b> tion: Definition Definition Festing po	ment <b>&amp; GONI</b> nition of R of Gonio sition, pr	UNIT- OMETRY: Range of Mo metry and i ocedure an	ndication, e		tion, norm	wing- 08 Hours al & abnorm application
S. No.	Techniques o 1. Active mov 2. Active assi 3. Passive mo 4. Resisted m <b>RANGE OF</b> <b>Range of Mo</b> End feels of th <b>Goniometry</b> : goniometry.	f application ements sted movement ovement ovement <b>MOTION</b> tion: Definition Definition Festing po	on, indicat ment <b>&amp; GONI</b> nition of R of Gonio sition, pro- runk.	UNIT- OMETRY: Range of Mo metry and i ocedure an UNIT-	ndication, e	al range of mo	tion, norm nique and 1 of the jo	wing- 08 Hours al & abnorm application

		Indication, Contraindication, Precaution, Testing position, procedure and grad	ing of muscles
		of the upper limb, lower limb trunk, face and neck.	
2.		Strengthening Exercise: Definition of Strengthening Exercise. Principles, dif	
		Strengthening Exercise, Indication, Contraindication, Precaution, techniques o	f application of
		Strengthening Exercises.	
		UNIT-IV	
S.N	lo.	THERAPEUTIC GYMNASIUM AND SUSPENSION THERAPY:	08 Hours
1.		Therapeutic Gymnasium: Set-up of gymnasium & its importance, various eq	uipment in the
		gymnasium. Operational skills, effects, & uses of each equipment.	
2.		Suspension Therapy: Definition, types, principles, technique of applicati	on, indication,
		contraindication, precaution, effects & uses of suspension therapy.	
	_	UNIT-V	
S. N	lo.	POSTURE, GAIT AND AMBULATORY TRAINING:	08 Hours
1.		Posture: Posture overview: Mechanism of the normal posture. Abno	rmal posture:
		assessment, types, aetiogenesis management including therapeutic exercises.	in a star of a sit
2.		<b>Gait:</b> Definition of Gait, Gait cycle. Time-distance Parameters of Gait, detern Gait deviations.	linants of gait,
3.		Ambulatory Training: Walking aids and its types, indications, contraindica	tion effects &
5.		uses in various training techniques.	
		BOOKS RECOMMENDED:	
		TEXTBOOKS:	
1.	Kisı	ner and Colby. F.A. Davis, Therapeutic Exercises Foundations and Techniques	
2.		rdiner, Principle of Exercise Therapy, C.B.S. Delhi.	
3.		kins & White F.A. Davis, Measurement of Joint Motion: A Guide to Goniometry.	
4.		od - W.B. Saunders, Beard's Massage.	
5.		ndal, Muscle testing and functions, Williams & Wilkins.	
6.	Bat	es and Hanson, Aquatic Exercise Therapy	
7.	Mai	rgarett Hollis, Massage for therapist: Margarett Hollis	
8.	Hol	lis, Lab Exercise Therapy, Blackwell Scientific Publications.	
		REFERENCE BOOKS:	
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At the end of the semester the student will be able to:	
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	SUBJECT N	NAME:			ELECTRO	OTHERAF	γ
	SUBJECT (	CODE:			PT	204	
		(	w.e.f. July	2015)			
	Hrs. / Wk.	<b>`</b>	Credits			Total Marks	S
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3	1 0	3	1	0	15	25	60
	4		4			40	60
		OBJECTI	VES OF	THE COL	JRSE:		
	the Production &						
	dications of various						
	gical effects & thera o be used for the a						
	on of the Electro the						
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		OUTL	INE OF TH				
UNITS		TITLE OF	THE UNIT			MINIMUM	NUMBER
01110						-	OURS
UNIT-I	BASIC OF CURRE	NTS & LOW	FREQUEN	CY CURRE	NTS	08 H	Hours
UNIT-II	MEDIUM FREQUE	NCY CURRE	ENTS			08 H	Hours
UNIT-III	HIGH FREQUENC	Y CURRENT	ſS-I			08 H	Hours
UNIT-IV	HIGH FREQUENC	Y CURRENT	ſS-II			08 H	Hours
UNIT-V	ELECTRO PHYSIC	CAL AGENTS	S -I			08 H	Hours
		Total (Minin	nal)			40 H	lours
			UNIT	-1			
S.No.	BASIC OF CURREN	ITS & LOW	-		NTS:		08 Hours
1.	Basic of Currents:	Introduction	to History	of currents.	Production,	Physiologic	al effects or
	Nerve and Muscle tis		•				
2.	Transcutaaneous E		-				
	Nerve Stimulation (7	ENS). Type	s of low fre	equency, pu	lse widths,	frequencies	& intensities
	used as TENS app	olications. P	rinciple of	clinical app	lication effe	ects & uses	indications
	contraindications, pr	ecautions, a	and operation	onal skills o	of equipmer	nt & patient	preparation
	Theories of pain relie	of by TENS.					
3.	Muscle Stimulators	s <b>(MS):</b> Mu	scle Stimul	ators (MS)	Types of f	requency, p	ulse widths
	frequencies & intens	sities used a	s MS applic	ations. Prin	nciple of clin	ical applicati	on effects &
	uses indications, cor	ntraindication	is, precautio	ons, and ope	erational skil	Is of equipme	ent & patien
	preparation.						
4.	Iontophoresis: Def	inition, Phys	siological &	Therapeuti	ics effects,	Principle of	application
	Methods of Application	on, indicatior	ns, contraind	dications, pr	ecautions.		
				-11			
S.No.	MEDIUM FREQUE		RENTS:				08 Hours
	Interferential Thera	apy (IFT): I	History of	Interferentia	I therapy (	IFT), Types	of medium
1.	<b>f</b>	مادامه فسم مراده	naina 0 int		ad as IET	annlications	Dringinla o
	frequency, pulse wi	atns, treque	ncies & int	ensities use	של משודו מ	applications.	Principle 0
	clinical application, e	•					•

	Russian Currents (RC): Russian Currents (RC), Types of frequency, pulse width
	frequencies & intensities used as RC applications. Principle of clinical application effect
	uses, indications, contraindications, precautions, and operational skills of equipment
	patient preparation.
	UNIT-III
S.No.	HIGH FREQUENCY CURRENTS-I: 08 Hours
1.	Ultrasound Therapy Unit (UST): Ultrasound therapy Unit (UST), Production, Physiologic
	& Therapeutics effects, Principle of application of Ultrasound therapy, Methods of Application
	of UST, phonophorosis, effects, indications, contraindications, precautions, and patie
	preparation.
2.	Long Wave Diathermy (LWD): Long Wave Diathermy (LWD), Production, Physiological
	Therapeutics effects, Principle of application of Long Wave Diathermy, Methods
	Application of LWD, effects, indications, contraindications, precautions, and patie preparation.
3.	Extracorporeal Shock Wave Therapy (ECSWT): Brief overview
S.No.	HIGH FREQUENCY CURRENTS-II: 08 Hour
1.	Shortwave Diathermy (SWD): Shortwave Diathermy (SWD), Production, Physiological
	Therapeutics effects, Principle of application of Shortwave Diathermy, Methods
	Application of SWD, types of electrodes, effects, indications, contraindications, precaution
	dangers and patient preparation.
2.	Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production, Physiological
	Therapeutics effects, Principle of application of Microwave Diathermy, Methods
	Application of MWD, effects, indications, contraindications, precautions, dangers and patie
	Application of MWD, effects, indications, contraindications, precautions, dangers and patie
S.No.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.
S.No. 1.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.
	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours
	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods
	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication
	Application of MWD, effects, indications, contraindications, precautions, dangers and patier preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief
1.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief to Cryotherapy.
1.	Application of MWD, effects, indications, contraindications, precautions, dangers and patier preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication         contraindications, precautions, and patient preparation. Theories of pain relief IC         Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath
1.	Application of MWD, effects, indications, contraindications, precautions, dangers and patier preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication         contraindications, precautions, and patient preparation. Theories of pain relief         Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath         Physiological effects, Methods of Application of PWB, effects, uses, indication
1. 2.	Application of MWD, effects, indications, contraindications, precautions, dangers and patier preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         O8 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication         contraindications, precautions, and patient preparation. Theories of pain relief I         Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath         Physiological effects, Methods of Application of PWB, effects, uses, indication         contraindications, precautions, and patient preparation.
1. 2.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         O8 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication         contraindications, precautions, and patient preparation.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath         Physiological effects, Methods of Application of PWB, effects, uses, indication         contraindications, precautions, and patient preparation.         Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydrocollatar Bath
1. 2.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:       08 Hours         Cryotherapy:       Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy.       Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief II Cryotherapy.         Paraffin Wax Bath:       Paraffin wax bath, Principle of application of Paraffin wax bath Physiological effects, Methods of Application of PWB, effects, uses, indication contraindications, precautions, and patient preparation.         Hydro-collator Bath:       Hydro-collator Bath, Principle of application of Hydrocollatar Bath Physiological effects, Methods of Application of Hydro-collator Bath, effects, uses
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1.       2.       3.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:       08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief I Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath Physiological effects, Methods of Application of PWB, effects, uses, indication contraindications, precautions, and patient preparation.         Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydrocollatar Bath Physiological effects, Methods of Application of Hydro-collator Bath, effects, uses indications, contraindications, precautions, and patient preparation.         Electrical Heating Pads: Electrical heating pads, Principle of application of Electrical
1.       2.       3.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         O8 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief I Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath         Physiological effects, Methods of Application of PWB, effects, uses, indication contraindications, precautions, and patient preparation.         Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydrocollatar Bath         Physiological effects, Methods of Application of Hydro-collator Bath, effects, uses         indications, contraindications, precautions, and patient preparation.         Electrical Heating Pads: Electrical heating pads, Principle of application of Electrical heating pads, Physiological effects, Methods of Application of Hydro-collator Bath entipe pads
1. 2. 3.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         O8 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods         Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief I Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath         Physiological effects, Methods of Application of PWB, effects, uses, indication contraindications, precautions, and patient preparation.         Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydrocollatar Bath         Physiological effects, Methods of Application of Hydro-collator Bath, effects, uses         indications, contraindications, precautions, and patient preparation.         Electrical Heating Pads: Electrical heating pads, Principle of application of Electrical heating pads, Physiological effects, Methods of Application of Hydro-collator Bath entipe pads
1. 2. 3.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief I Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath Physiological effects, Methods of Application of PWB, effects, uses, indication contraindications, precautions, and patient preparation.         Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydrocollatar Bath Physiological effects, Methods of Application of Hydro-collator Bath, effects, uses indications, contraindications, precautions, and patient preparation.         Electrical Heating Pads: Electrical heating pads, Principle of application of Electrical heating pads         effects, uses, indications, contraindications, precautions, precautions, and patient preparation.
1.       2.       3.       4.	Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation.         UNIT-V         ELECTRO PHYSICAL AGENTS -I:       08 Hours         Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods Application of Cryotherapy. Principle of clinical application, effects, uses, indication contraindications, precautions, and patient preparation. Theories of pain relief I Cryotherapy.         Paraffin Wax Bath: Paraffin wax bath, Principle of application of Paraffin wax bath Physiological effects, Methods of Application of PWB, effects, uses, indication contraindications, precautions, and patient preparation.         Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydrocollatar Bath Physiological effects, Methods of Application of Hydro-collator Bath, effects, use indications, contraindications, precautions, and patient preparation.         Electrical Heating Pads: Electrical heating pads, Principle of application of Electrical heating pads effects, uses, indications, contraindications, precautions, and patient preparation.         BOOKS RECOMMENDED:

3.	Clinical Electrotherapy- Nelson and Currier
4.	Electrotherapy Explained- Low and Reed
5.	Electrotherapy in Rehabilitation-Meryl Roth Gersh
6.	Therapeutic modalities in rehabilitation-William E. Prentice
	REFERENCE BOOKS:
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At th	e end of the semester the student will be able to:
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SU	<b>BJECT NA</b>	ME:	SU	RFACE A	NATOM	Y & PALPA		SKILLS
SU	BJECT CC	DE:			P	Г 205		
				(w.e.f. July	2015)			
	Hrs. / Wk.			Credits		Т	otal Ma	arks
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	3			3		40	)	60
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and sol elbow a palpate palpatic and ma	it tissue landn and wrist/hanc the landmark on skill to prepa	nark relatin d) and all r s, and prop are the stud	g to maj regions o minent a dents for	or extremity of the spine rea of the b more advan	joints, (foo (cervical, th ody for exa iced instruct	t/ ankle, knee horacic, lumbe mination. Ess ion concerning	e, hip, s er, pelv ential c g physi	cating osseous shoulder girdle ric). Be able to observation and cal examination I its importance
			OUTI	INE OF TH	E COURSE	:		
UNITS							MINIM	IUM NUMBER
•••••					-			FHOURS
UNIT-I	INTRODUC SKILLS	CTION OF	SURFAC	E ANATOM	Y & PALPA1	TION		04 Hours
UNIT-II			-	PALPATION		-		04 Hours
UNIT-III				PALPATION				04 Hours
UNIT-IV				PALPATION		_/E		04 Hours
UNIT-V	BASIC PO			TIONAL SK	ILL			04 Hours
			otal (Min		1			20 Hours
0.11				UNIT				0411-
S.No.	SKILLS:	TION OF	SURF	ACE ANA	ATOMY &	PALPATIO		04 Hours
1.	Terminology			•		on skill.		
2.	Principle of	surface m	arking a	nd palpatio	า			
3.	Types of pa	lpation and	d its use	s in assess	ment.			
4.	Ethical and	legal issue	es regard	ding palpati	on techniqu	les.		
					·II			
S.No.	LANDMAR	K LOCATI	ON ANI	<b>D PALPATI</b>	ON SKILL	OF SPINE:		04 Hours
1.	Landmark loo	cation and	alpation	skill of Lum	bopelvic regi	ion.		
2.	Landmark loo	cation and	alpation	skill of Thor	acic Spine.			
3.	Landmark loo	cation and	calpation	skill of Cerv	ical and Occ	cipital region.		
	•			UNIT-				
S.No.	LANDMAR	K LOCATI	ON ANI	) PALPATI	ON SKILL	OF U/E:		04 Hours
1.	Landmark loo	cation and	calpation	skill of Shou	ulder Girdle.			
2.	Landmark loo	cation and	palpation	skill of Elbo	w.			
3.	Landmark loo	cation and	calpation	skill of Wris	t & Hand			
				UNIT-	IV			
0.11.	LANDMAR	KIOCAT	ION AN			OF L/F		04 Hours
S.No.		I LOCAI						

2.	Landmark location and palpation skill of Knee.
3.	Landmark location and palpation skill of Hip.
	UNIT-V
S.N	o. BASIC POSTURAL OBSERVATIONAL SKILL: 04 Hours
1.	Normal body alignment, symmetry and plumb line.
2.	Observation of static and dynamic posture in various positions (sitting, standing & walking)
	and gait.
	BOOKS RECOMMENDED:
	TEXTBOOKS:
1.	A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stua
	Kinsinger.
2.	Orthopaedics Physical Assessment. By D Magee.
3.	An Introduction of fundamental Anatomy by David Sinclair.
4.	Human Anatomy by B.D. Chaurasiya- All 3 volumes.
5.	Surface anatomy By John S.P. Lumley
6.	Surface and Radiological Anatomy By A. Halim
	REFERENCE BOOKS:
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At th	he end of the semester the student will be able to:
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	JBJECT NA	ME:		PSYCHO		& EXPER IOLOGY	IMENTAL	
SL	JBJECT CC	DE:			PT	206		
			()	w.e.f. July 2	2015)			
	Hrs. / Wk.			Credits			Total Marks	
L	Т	Р	L	Т	Р	TA	СТ	ESE
2	1	0	2	1	0	15	25	60
	3			3			40	60
knowle aging p & disea	e to define the dge of Psycho process. Be abl ase; environme treatment mod	term Psyc logical ma le to under ental & em	chology 8 turation c stand the notional ir nmonly us	during human importance on t	nce in the H developmo of psycholo he mind &	lealth delive ent & growt gical status	h; & alteration of the person	ons during n in healtl
UNITS	2	тіті	E OF THE	_		MINIMIM	NUMBER O	
UNIT-I	,	1116					06 Hours	
UNIT-II							06 Hours	
UNIT-III							06 Hours	
UNIT-IV	/						06 Hours	
UNIT-V							06 Hours	
		Total (N	linimal)				30 Hours	
				UNIT-I				
S.No.							06	Hours
1.	Definition, an	nlication a	nd mothe	ds in psycho	lamy Dialag	w of Rehav	ior, Sensory	
	and perception learning, Mer	on, Princip	les of lea	arning, Class	ical and In ories, forget	strumental	Conditioning,	processe Cognitive
S.No.	and perception	on, Princip	les of lea	arning, Class	ical and In ories, forget	strumental	Conditioning, ia.	processe Cognitive
	and perception	on, Princip nory, long : Language king and la	les of lea and short , Concep inguage of of motive	ts, thinking pr communications, motives to otions, physic	ical and In pries, forget rocess, prol on, Motivati know and plogy and a	strumental ting, amnes olem- solvin on, Biologic be effective	Conditioning, ia. 06 g and decisic al and Socia e, Emotion a	Cognitive Hours on making al motives
1.	and perception learning, Mer Thinking and creative think frustration an	on, Princip nory, long : Language king and la	les of lea and short , Concep inguage of of motive	ts, thinking pr communications, motives to	ical and In pries, forget rocess, prol on, Motivati know and plogy and a	strumental ting, amnes olem- solvin on, Biologic be effective	Conditioning, ia. <b>06</b> g and decisic al and Socia e, Emotion a f emotion.	Cognitive Hours on making al motives nd Stress
1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a	on, Princip nory, long Language king and la nd conflict nd percept	les of lea and short , Concep inguage of of motive ion of em uences, a	arning, Class — term memo UNIT-II ts, thinking pr communications s, motives to otions, physic UNIT-II and relations	ical and Inspiries, forget rocess, proton, Motivati know and plogy and a hips, Attitu	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature	Conditioning, ia. g and decisic al and Socia e, Emotion a f emotion. 06	Cognitive Hours on making al motives nd Stress Hours
1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a	on, Princip nory, long Language king and la nd conflict nd percept	les of lea and short , Concep inguage of of motive ion of em uences, a	arning, Class — term memo UNIT-II ts, thinking pr communications s, motives to otions, physic UNIT-II and relations	ical and Inspiries, forget rocess, proton, Motivation know and plogy and a l hips, Attitue	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature	Conditioning, ia. g and decisic al and Socia e, Emotion a f emotion. 06	Cognitive Hours on making al motives nd Stress Hours
1. <u>S.No.</u> 1.	and perception learning, Mer Thinking and creative think frustration and Expression a	on, Princip nory, long Language king and la nd conflict nd percept	les of lea and short , Concep inguage of of motive ion of em uences, a	arning, Class — term memo UNIT-II ts, thinking pr communications, motives to otions, physic UNIT-II and relations age, Behavior	ical and Inspiries, forget rocess, proton, Motivation know and plogy and a l hips, Attitue	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature	Conditioning, ia. g and decisic al and Socia e, Emotion a f emotion. 06 and measu	Cognitive Hours on making al motives nd Stress Hours
1. S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Factor	on, Princip nory, long Language king and la nd conflict nd percept ptions, infl ctors in attit	es of lea and short , Concept inguage of of motive ion of em uences, a ude chan	arning, Class — term memory UNIT-II ts, thinking pro- communications s, motives to otions, physic UNIT-II and relations and relations and relations DNIT-IN pective (infar g about person	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude for the second second second for the second second second for the second second second for the second second second second for the second se	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature es.	Conditioning, ia. <b>06</b> g and decisic al and Socia e, Emotion a f emotion. <b>06</b> e and measu <b>06</b> cence, adult,	Cognitive Hours on making al motives nd Stress Hours rement of Hours old age
1. S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Factor Development Personality,	on, Princip nory, long Language king and la nd conflict nd percept ptions, infl ctors in attit	es of lea and short , Concept inguage of of motive ion of em uences, a ude chan	arning, Class - term memory UNIT-II ts, thinking pro- communications s, motives to otions, physice UNIT-II and relations and relations bge, Behavior UNIT-IV pective (infar	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude for the second second second for the second second second for the second second second for the second second second second for the second se	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature es.	Conditioning, ia. <b>06</b> g and decisic al and Socia e, Emotion a f emotion. <b>06</b> e and measu <b>06</b> cence, adult, sues and cor	Cognitive Hours on making al motives nd Stress Hours irement of Hours old age) ntroversie
S.No. 1. S.No. 1. S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Factor Development Personality,	on, Princip nory, long Language king and la nd conflict nd percept ptions, infl ctors in attit	es of lea and short , Concept inguage of of motive ion of em uences, a ude chan	arning, Class — term memory UNIT-II ts, thinking pro- communications s, motives to otions, physic UNIT-II and relations and relations and relations DNIT-IN pective (infar g about person	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude for the second second second for the second second second for the second second second for the second second second second for the second se	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature es.	Conditioning, ia. <b>06</b> g and decisic al and Socia e, Emotion a f emotion. <b>06</b> e and measu <b>06</b> cence, adult, sues and cor	Cognitive Hours on making al motives nd Stress Hours irement of Hours old age

### **BOOKS RECOMMENDED:**

#### TEXTBOOKS: Morgan C.T., King R. A., Weijz J. R. Schopler J. 1. Introduction to Psychology, 7<sup>th</sup> edn. (Tata McGraw-Hill Publishing Co. Ltd.) 2. Human Development, 5<sup>th</sup>. (Tata McGraw Hill Publishing Co. Ltd 3. Munn N.L. Introduction to Psychology-(Premium Oxford, I.B.P. Publishing Co.) 4. 5. Parameshwaran E. G. & Ravichandra K. - Experimental Psychology: A Laboratory Manual (1<sup>st</sup> edn.) ( Seema Publications, Delhi ) Munn Julia (ed.) **REFERENCE BOOKS:** 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.

# STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to: 1. 2.

		SUBJ		ME:	EXERCISE THERAPY LAB				
			ECT CO		PT 207				
					v.e.f. July	2017)			
	Hrs. / Wk. Credits Total Marks								
L		T T	P	L	T	Р	ТА		ESE
0		0	4	0	0	4	30	30	40
		4			2			60	40
			OB	JECTI	/ES OF 1	HE COL	JRSE:		
								ion techniques,	effects,
indic	catio	ons, and contra						herapy.	
			C	DUILIN	E OF TH	ECOUR	5E:		
S.N		TITLE OF TH							Hours
1.			ints, muscl	e work, a	and stability	of various	s fundamen	tal and derived	
2.		positions. Different type	s of muscl	e contrac	tion musc	e work an	oun action (	of muscles and	
۷.		coordinated m				o work, gr			
3.		Measurement							
4.			ne grading	of muscle	e strength r	egion wise	upper limb	and lower limb	
5		and trunk.	iques of pr	arossivo	strongthon	ing overeig		es region wise.	
<u>5.</u> 6.								is part of body-	
0.		region wise.	o or susperi		apy and its	application		is part of body-	
7.			d functions	s along	with appl	ication of	various e	quipment in a	
		gymnasium.							
8.	Use of various ambulation aids in gait training. Evaluate ADLs and practice various training techniques.								
<u>9.</u> 10.		Normal and al			<u>v</u>		ve techniqui	25	
10.					al (Minimal)				60
				BOOK			)•		-
					TEXTBO		′ <b>•</b>		
1.	Kis	Kisner and Colby. F.A. Davis, Therapeutic Exercises Foundations and Techniques							
2.	Ga	Gardiner, Principle of Exercise Therapy, C.B.S. Delhi.							
3.		Norkins & White F.A. Davis, Measurement of Joint Motion: A Guide to Goniometry.							
4.		Nood - W.B. Saunders, Beard's Massage. Kendal, Muscle testing and functions, Williams & Wilkins.							
5.			-						
6.		argarett Hollis,					200		
7.		ollis, Lab Exerc	use i nerap		ERENCE		JIIS.		
1.						<b>DOOKS</b> .			
2.									
3.	1								
4.									
5.									
						COMES/O	BJECTIVE	S:	
	e en	d of the semest	ter the stude	nt will be a	able to:				
<u>1.</u>									
2.									

	SU					ELECTR	OTHERAP	/ LAR		
SUBJECT CODE:						PT 208				
				v.e.f. July	2015)		11200			
	Hrs. / Wk. Credits						Total Marks			
L	Т	Р	L	Т	Р	ТА	СТ	ESE		
0	0	4	0	0	4	30	30	40		
	4			2			60	40		
				/ES OF 1						
	course involves									
Indica	ations, and contra			E OF TH			used in Physio	inerapy.		
		Ľ				JKJE:				
								r		
S.No						explain the r	ationale for th	ne Hours		
1.	prescription of Basic operation					ities. I safety device.				
<u>1.</u> 2.	•					by various type	s of low			
۷.	-			Grees and I	1030163					
3.		frequency currents on self.         Locate and stimulate different motor points region wise, including the upper and lower								
э.	limb, trunk & fa									
4.	,		ifferent lov	w frequency	/ current	s faradic foot b	ath, faradism			
		Therapeutic application different low frequency currents faradic foot bath, faradism under pressure, lontophoresis.								
5.										
6.		•		• •						
7.										
<ul> <li>8. Hydrocollatar bath unit, its operation and different method of application- region wise.</li> </ul>							).			
9.						od of applicatio	•			
10.		Various forms of therapeutic cold application region wise including ice, cold packs,								
	vapocoolant sp				-		-			
11.						hod of applicat		).		
12.		Ultrasound unit, its operation and methods of application - regionwise.								
13.	Short wave diathermy unit, its operation and different methods of application - regionwise.									
14.	Microwave diathermy unit, its operation and different methods of application -									
1 -TI	regionwise.									
	·		Tota	al (Minimal)				60		
			POOK	S RECON						
				TEXTBO						
1.	Clayton's Electroth	nerapy								
2.	Electrotherapy Explained- Sheela & Kicthen									
3.	Clinical Electrotherapy- Nelson and Currier									
4.	Electrotherapy Explained- Low and Reed									
5.	Electrotherapy in Rehabilitation-Meryl Roth Gerth									
6.	Therapeutic modalities in rehabilitation-William E. Prentice									
			REF	ERENCE	BOOK	S:				
1.										
2.										
3.										

4.

## STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

1.	
2.	
3.	

	SUBJI	ECT NA	ME:	SURFACE ANATOMY & PALPATION SKILLS LAB PT 209					
	SUBJ	ECT CO	DE:						
	Hrs. / Wk.			Credits	Total Marks				
L	T P		L	Т	Р	ТА	СТ	ESE	
0	0	2	0	0	2	50	50	00	
	2			1		_	00	00	
		OE	BJECTI	VES OF		URSE:			
	rse involves a							l, indications	
and cont	ra-indications,						siotherapy.		
				IE OF TH					
S.No.						in the rational	e for the	Hours	
	prescription of safe and effective knowledge of surface anatomy and								
4	Palpation Skill.								
1.	Terminology related to surface anatomy, and palpation skill.								
2.	Principle of surface marking and palpation, Types of palpation and uses.								
3.	Normal body alignment and symmetry.								
4.	Observation of static and dynamic posture in various positions (sitting,								
	standing & w								
5.	Landmark location and palpation skill of Lumbopelvic region.								
6.	Landmark location and palpation skill of Thoracic Spine.								
7.	Landmark location and palpation skill of Cervical and Occipital region.								
8.	Landmark location and palpation skill of Shoulder Girdle.								
9.	Landmark location and palpation skill of Elbow.								
10.	Landmark location and palpation skill of Wrist & Hand								
11.	Landmark location and palpation skill of Food & Ankle.								
12.	Landmark lo	cation and	palpatior	n skill of Kne	е.				
13.	Landmark location and palpation skill of Hip.								
	1		Total	(Minimal)					

	BOOKS RECOMMENDED:						
	TEXTBOOKS:						
1.	A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stuart						
	Kinsinger.						
2.	Orthopaedics Physical Assessment. By D Magee.						
3.	An Introduction of fundamental Anatomy by David Sinclair.						
4.	Anatomy of Chaurasiya- All 3 volumes.						
5.	Surface anatomy By John S.P. Lumley						
6.	Surface and Radiological Anatomy By A. Halim						
	REFERENCE BOOKS:						
1.							
2.							
3.							

# **STUDENT LEARNING OUTCOMES/OBJECTIVES:** At the end of the semester the student will be able to:

1. 2. 3.

# SCHEME OF EXAMINATION & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

			S	<b>CHEN</b>	1E OF	F EXA	MINA		N				
					TH	IEORY	:						
				INTERI	NAL A	SSES	SMEN	T (IA)					
						) Marks		. ,					
CI	LASS 1	EST (CT	)			TEA	CHER	ASSE	ESSM	ENT (	TA)		
MSE-1	MS	E-2 Ma	akeup	ST-1	ST-2	Q-1	Q-2	A-1	A-2	A-3	A-4	Attendance	
25	2	25	25	5	5	5	5	5	5	5	5	5	
			EN		ESTER	EXAM	INATIO	ON (ES	6E)				
					60	) Marks	5						
				INTER				T (IA)					
						s Test (	CT)						
	1: 25 Ma	arks		PM: 13	• •				Tim	ne: 1:3	0 Hou	-	
Q.No.		· • ·	_		Nodels							Marks	
1.	Multip	oles Choid	ce Ques		-	-		11			1	.5X5=7.5	
			I		uestic	on from		Unit	1>			4 5	
	a.	i)		ii)			iii)		iv)			1.5 1.5	
	b.	i) i)		ii) ii)			iii)		iv) iv)			1.5	
	c. d.	i)		ii)		iii) iii)		iv)			1.5		
	e. i)			ii)			 iii)			iv)		1.5	
2.		Question	ns (anv t	,			··· <i>)</i>		17)		2	2.5X3=7.5	
2.	a.	Question		meej							-	2.5	
	b.											2.5	
	C.											2.5	
	d.											2.5	
	e.											2.5	
3.	Long	Question	s (any ty	wo)								5X2=10	
	a.											5	
	b.											5	
	C.											5	
				End Ser				(ESE)					
	MM: 6	0 Marks				21 (35	%)			Time		Hours	
Q.No.					Nodels	6					Mark		
1.	Multip	ole Choice	e Questi			_	<u> </u>					1X12=12	
		••	I		luestic	on from		Unit			1		
	a.	i)		ii)			iii)		iv)			1	
	b.	i)		ii)			iii)		iv)			1	
	C.	i)		ii)			iii)		iv)			1	
	d.	i)		ii)			iii) iii)		iv)			1	
	e. f.	i) i)		ii) ii)			iii)		iv) iv)			1	
	т. g.	i)					iii)		iv)			1	
	9. h.	i)		ii)			iii)		iv)			1	
	i.	i)		 ii)			iii)		iv)			1	
		''		·''/			,		••)		l	•	

	j.	i)	ii)	iii)	iv)	1
	k.	i)	ii)	iii)	iv)	1
	l.	i)	ii)	iii)	iv)	1
2.	Short Q	3X4=12				
	a.					3
	b.					3
	C.					3
	d.					3
	е.					3
	f.					3
3.	Short Q		3X4=12			
	a.					3
	b.					3
	C.					3
	d.					3
	е.					3
	f.					3
4.	Long Qu		6X2=12			
	а					6
	b.					6
	С.					6
4.	Long Qu	uestions (any	Two)			6X2=12
	а.					6
	b.					6
	С.					6

## STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

## (BPT - II YEAR/ IV SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



## INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

#### Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

## STUDY & EVALUATION SCHEME BACHELOR OF PHYSIOTHERAPY (BPT)

## (w.e.f. July 2020)

II-Year

#### **IV-Semester**

S.	Code	Name of the Subject	P	eriods	1	Total	Ev	aluatio	on Sche	me	Subject
No.	No.	interior or the seafers				Credits	S	ession	al	Exam	Total
100	annes.		L	T	P		CT	TA	Total	ESE	
1.	PT 210	General Medicine	2	1	0	3	40	20	60	40	100
2	PT 211	Pharmacology	2	1	0	3	40	20	60	40	100
3.	PT 212	Therapeutic Techniques	3	1	0	4	40	20	60	40	100
4.	PT 213	Electrotherapy & Electrodiagnosis	3	1	0	4	40	20	60	40	100
5.	PT 214	Basic of Biomechanics	3	1	0	4	40	20	60	40	100
6.	PT 215	Ethics in Physiotherapy	2	0	0	2	40	20	60	40	100
7.	PT 216	Therapeutic Techniques-Lab	0	0	4	2	40	20	60	40	100
8.	PT 217	Electrotherapy & Electrodiagnosis-Lab	0	0	4	2	40	20	60	40	100
9.	PT 218	Basic of Biomechanics-Lab	0	0	2	1	40	20	60	40	100
	-	Total	15	05	10	25	360	180	540	360	900

L: Lecture	T: Tutorials	P: Practical	C: Credit	CT: Class Test
TA: Teacher Assessment			ESE: End Semester Exam	ination
Sessional Total: Class Test + Teacher Assessment			Subject Total: Sessiona Examination (ESE)	I Total + End Semester

#### AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- **6.** To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

# SYLLABI OF BACHELOR OF PHYSIOTHERAPY (BPT - II YEAR/ IV SEMESTER)

#### GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

#### **OBJECTIVES:**

#### A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

#### B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

#### C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

	SUBJ	ECT NA	ME:			PATH	IOLOGY		
	SUBJ	ECT CO	DE:		PT 201				
				(w.e.f. Ju	ly 2017)				
	Hrs. / Wk.			Credits			Total Mark	S	
L	Т	Р	L	Т	Р	ТА	СТ	ESE	
2	1	0	2	1	0	15	25	60	
	3			3		4	0	60	
		0	BJECT	IVES OF	THE CO	URSE:			
emphasi	is will be place scular system	ed on descr	ption of r ous syste	nusculoske m, as thes	letal anator	ny which inclued to the app	udes bones, j	ures. Particular pints, muscles, hysiotherapy in	
UNITS	TITLE OF 1		OUTE						
UNIT-I	CELL INJUR	-			19		08 Hours	HOUKS	
UNIT-II	VASCULAR						08 Hours		
UNIT-III	BONES, JOI					08 Hours			
UNIT-IV	HEPATO-BII SYSTEM			IMENTARY	08 Hours				
UNIT-V	CENTRAL NERVOUS SYSTEM						08 Hours		
		Total (Mi	nimal)				40 Hours		
				UNI	T-I				
S. No.	CELL INJU	RY, INFLA	MMATI	ON & NEO	PLASMS:		(	)8 Hours	
1.	Cells: Brief gangrene.	out line	of cell i	njury, hyp	ertrophy,	atrophy, de	generation,	necrosis and	
2.	Inflammatio exudates, gra		n, vascula	ar and cellu	ılar phenon	nena, differen	ice between t	ransudate and	
3.	Neoplasm: cancer pain s		character			and maligna	nt tumor, spi	read of tumor,	
				UNI					
S. No.	VASCULAF							Hours	
1.	Volkmann's i				rrhage, Err	nbolism, I hro	ombosis, Infra	action, Shock,	
2.					dina disorde	er- Hemophilia	9		
3.			•	-	0	•		therosclerosis,	
J.	coronary hea	-	-		-				
4.	-					chiectasis, Ei	mphysema.		
				UNI	Г-Ш				
S. No.	BONES, JC	INTS & M	USCUL				08	Hours	

1.	Bones: Etiopathogenesis and gross pathology of fallowing conditions:	Rickets/Osteomalacia,
	Osteoporosis, Osteomyelitis, Hyperparathyroidism.	
2.	Joint: Osteoarthritis, Rheumatoid Arthritis, Gout, Spondyloarthopathy	(including Ankylosing
	Spondylitis), Osteonecrosis, Paget's disease.	
3.	<b>Muscles:</b> Myositis ossificans, Myofascial Pain syndrome, Septic arthritis.	
	UNIT-IV	
S. No.	HEPATO-BILIARY, ENDOCRINE & INTEGUMENTARY SYSTEM:	08 Hours
1.	Hepato-Biliary System: Jaundice Types, etiopathogenesis and diagnosis	δ.
2.	Endocrine: Diabetes Mellitus, Non Neoplastic lesion of thyroid-Thyrotoxic	
3.	Skin: Brief outline of Scleroderma, Psoriasis, Pressure Ulcer, and Burn.	• •
	UNIT-V	
S. No.	-	08 Hours
1.	<b>CNS:</b> Etiopathogenesis and gross pathology of fallowing conditions- N	
1.		• • •
	Parkinson's, Amyotrophic lateral sclerosis, Ataxias, Multiple sclerosis,	1 (
	Marie Tooth disease, Compression and Entrapments, diabetics G.B. Sy	ndrome), malformation,
	CVA, Extredural and Intra Dural Hematoma.	
2.	Muscle Neuropathies: Poliomyelitis, Myopathies, Myasthenia gravis, Mu	scular dystrophy.
	BOOKS RECOMMENDED:	
	TEXTBOOKS:	
1. B	asic Patho – Kumar and Clark	
	ext book of Pathology - by Harsh Mohan	
	extbook of Pathology By Boyd	
	athologic basis of deseases by Cotran, Kumar, Robbins	
	eneral Pathology – by Bhende	
J. G	REFERENCE BOOKS:	
1.	REFERENCE BOORS.	
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	STUDENT LEARNING OUTCOMES/OBJECTIVES:	
At the e	and of the semester the student will be able to:	
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	SU	BJECT N	AMF			MICE	ROBIOLOC	θY		
		BJECT C					PT 202			
	30	DJECIU			0045					
			(	w.e.f. July	/ 2015)		<b>T</b> ( ) <b>N</b>			
	Hrs./Wk.	<b>D</b>		Credits	<b>_</b>	TA	Total Marks			
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human Microbic infection understa	nd of the cours infections, pology involves is and precaut anding of Microve measures to	e, the cand ertaining to the study ionary mea obiology of o the patien	idate will o Immu of con sures to disease t.	have soun nology, Vi nmon orga protect on s is essen	id knowled rology, Ba inisms ca ie from ac tial to inst	ge of the ager acteriology, a using disease quiring infecti itute appropria	& mislenious es including ons. The knc	condition. nosocomial wledge and		
				IE OF TH	IE COU					
UNITS	_	THE UNIT				MINIMU	M NUMBER (	OF HOURS		
UNIT-I			DLOGY				08 Hours			
UNIT-II	IMMUNOL						08 Hours			
UNIT-III	BACTERI						08 Hours			
UNIT-IV							08 Hours			
UNIT-V								08 Hours		
		Total (M	inimal)				40 Hours			
				UNIT	-					
S. No.	GENERAL						30	B Hours		
1.	Introduction a									
2.	identification			uirements,I	Metabolism	n, Growth,	Classific	ation and		
3.	Sterilizations	and Disinfe	ction.							
				UNIT	-11		1			
S. No.	IMMUNOLO							Hours		
1.	Infection, Imn						Complement S	System.		
2.	Structure and					•				
3.	Immunodefici	ency Diseas	ses, Hype			unity.				
				UNIT	-111					
S. No.	BACTERIO						08	Hours		
1.	Staphylococc				cus, Neiss	eria				
2.	Cornybacteriu									
3.	Enterobacteri	•		as, Vibrio.						
4.	Mycobacteria	, Treponem	a.							
				UNIT-	·IV					
S. No.	VIROLOGY						08	Hours		
1.	General Char	acteristics a	nd Class	sification of	Virus					
2.	Virus-Host Int									
3.	DNA and RN	A Virus								
4.	Measles, Mur	nps, Rubella	a, Polio,	Influenza, F	Rabies, De	ngue, Hepatiti	s, HIV			
				UNIT-	·IV					

S. No.	MISLANEOUS:	08 Hours
1.	Medical Mycology	
2.	Parasitology	
3.	Normal Microbial Flora of The Human Body	
4.	Hospital Acquired Infection	
5.	Universal Precautions	
	BOOKS RECOMMENDED:	
	TEXTBOOKS:	
<b>1.</b> T	extbook of Parasitology- K. D. Chatterjee (12 <sup>th</sup> Ed.)	
<b>2.</b> To	ext Book of Microbiology - Paniker (9 <sup>th</sup> Ed.)	
3. E	ssentials of Medical Microbiology- Sastry Apurba Shankar (1 <sup>st</sup> Ed.)	
<b>4.</b> To	extbook of Microbiology - P.Chakraboty	
<b>5</b> . To	extbook of Microbiology – Anantnarayan	
	REFERENCE BOOKS:	
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At th	ne end of the semester the student will be able to:
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	SUBJ		ME:			EXERCISE	THE	ERAP	Y
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		OB	JECTI	VES OF <sup>-</sup>		JRSE:			
positions acquire t skill of a therapeu exercise. measure motion & & their ef	. To demons he skill of use oplication of v tic use, merits Acquire a sl ment on Mod will be able t ficacy in thera <b>TITLE OF T</b> INTRODUC	trate move e of various various man s / demerits kill of asse els. Recall o understan o understan peutic gym ( HE UNIT	ments in s tools of nual muse of the sa ssment o the basic nd the ap nasium, o <b>DUTLIN</b>	terms of v the Gonion cle testing p me and also of Gait, Pos principles plication of & suspension <b>IE OF TH</b>	various Ana netry and r procedures to know abc ture and u of Physics such princ on therapy	nonstrate var atomical plan neasure range & describe th out various too ises of Ambu related to me iples to the sin used in therap	es. To e of m he Phy ols use latory echan mple e	o descr notion. A ysiologi ed in stru- devices ics of n equipme s. Min Numbe 08	ibe & also Acquire the cal effects, engthening s and their novement / ent designs nimum er of Hours 3 Hours
UNIT-II	RANGE OF	MOTION 8		METRY				08	Hours
UNIT-III	MANUAL M	USCLE TE	STING (N	/MT) & STF	RENGTHER	NING EXERC	ISE	80	Hours
UNIT-IV	THERAPEU	TIC GYMN	IASIUM A	ND SUSPE	<b>NSION TH</b>	ERAPY		08	Hours
UNIT-V	POSTURE,	GAIT AND	AMBULA	TORY TRA	INING				Hours
			Total (Mi	nimal)				40	Hours
				UNIT	1				
S. No.	INTRODUC		EXERCI					08 H	ours
1.						n: Brief des	criptic		
		sition & d	erived p	osition inc		nt positions,			
2.	Movements:       Definition of Movements, Brief description & Classification of movements.         Techniques of application, indication, contraindication, effects & uses of the following-         1. Active movements         2. Active assisted movement         3. Passive movement         4. Resisted movement								
				UNIT-	·II				
S. No.	RANGE OF								08 Hours
1.	End feels of	the Joints.			·	al range of mo			
2.		Testing po	sition, pr	ocedure ar	id measure	Principles, tech ement of ROI			
S. No.	MANUAL EXERCISE	MUSCLE	TEST	ring (Mi	MT) &	STRENGT	IENI	NG (	08 Hours
1.	Manual Mus	cle Testin	g (MMT)	: Definition,	Principle,	Grading and	applic	cations	techniques.
	Indication, C	ontraindica	tion, Pred	caution, Tes	sting position	on, procedure	and g	grading	of muscles

		of the upper limb, lower limb trunk, face and neck.	
2.		Strengthening Exercise: Definition of Strengthening Exercise. Principles, di	fferent mode of
		Strengthening Exercise, Indication, Contraindication, Precaution, techniques of	of application of
		Strengthening Exercises.	
		UNIT-IV	
S. N	lo.	THERAPEUTIC GYMNASIUM AND SUSPENSION THERAPY:	08 Hours
1.		Therapeutic Gymnasium: Set-up of gymnasium & its importance, various ed	quipment in the
		gymnasium. Operational skills, effects, & uses of each equipment.	
2.		Suspension Therapy: Definition, types, principles, technique of applicat	ion, indication,
		contraindication, precaution, effects & uses of suspension therapy.	
		UNIT-V	I
S. N	lo.	POSTURE, GAIT AND AMBULATORY TRAINING:	08 Hours
1.		Posture: Posture overview: Mechanism of the normal posture. Abno	
<u> </u>		assessment, types, aetiogenesis management including therapeutic exercises.	
2.		<b>Gait:</b> Definition of Gait, Gait cycle. Time-distance Parameters of Gait, detern Gait deviations.	minants of gait,
3.		Ambulatory Training: Walking aids and its types, indications, contraindications	ation, effects &
0.		uses in various training techniques.	
		BOOKS RECOMMENDED:	
		TEXTBOOKS:	
1.	Kisr	ner and Colby. F.A. Davis, Therapeutic Exercises Foundations and Techniques	
2.	Ga	rdiner, Principle of Exercise Therapy, C.B.S. Delhi.	
3.		kins & White F.A. Davis, Measurement of Joint Motion: A Guide to Goniometry.	
4.	Wo	od - W.B. Saunders, Beard's Massage.	
5.	Ker	idal, Muscle testing and functions, Williams & Wilkins.	
6.	Bat	es and Hanson, Aquatic Exercise Therapy	
7.	Mar	garett Hollis, Massage for therapist: Margarett Hollis	
8.	Hol	lis, Lab Exercise Therapy, Blackwell Scientific Publications.	
	1	REFERENCE BOOKS:	
1.			
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At the	e end of the semester the student will be able to:
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L         T         P         L         T         P         TA           3         1         0         3         1         0         15           4         4         4         4         4         4           OBJECTIVES OF THE COURSE:         Describe the Production & Physiological effects, Therapeutic uses, merits, contraindications of various low, medium & high frequency modes of contraindications of various low, medium & high frequency modes of Ass Acquire an ability to select the application of lontophoresis & sonophonophores Application of the Electro therapy modes on models, for the purpose of Ass Acquire an ability to select the appropriate mode as per the tissue specific & are OUTLINE OF THE COURSE:           UNITS         TITLE OF THE UNIT         UNIT-I           UNIT-I         BASIC OF CURRENTS & LOW FREQUENCY CURRENTS         UNIT-II           UNIT-II         MEDIUM FREQUENCY CURRENTS-I         UNIT-II           UNIT-V         ELECTRO PHYSICAL AGENTS -I         UNIT-I           UNIT-V         ELECTRO PHYSICAL AGENTS -I         UNIT-I           S.No.         BASIC OF CURRENTS & LOW FREQUENCY CURRENTS:         I           1         Basic of Currents: Introduction to History of currents, Production, F Nerve and Muscle tissue and therapeutic effects to AC, DC and Modifi           2.         Transcutaaneous Electric Nerve Stimulation (TENS): History of Tr Nerve Stimulation (TENS). Types of low frequency, pulse widths, f	С	I T	N	A	Μ	E:								E	ELE	СТ	RC	)TI	HE	RA	ΡY		
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Total (Minimal)         UNIT-I         S.No.       BASIC OF CURRENTS & LOW FREQUENCY CURRENTS:         1.       Basic of Currents: Introduction to History of currents, Production, F         Nerve and Muscle tissue and therapeutic effects to AC, DC and Modifi         2.       Transcutaaneous Electric Nerve Stimulation (TENS): History of Tr         Nerve Stimulation (TENS). Types of low frequency, pulse widths, frequed as TENS applications. Principle of clinical application effection contraindications, precautions, and operational skills of equipment Theories of pain relief by TENS.         3.       Muscle Stimulators (MS): Muscle Stimulators (MS) Types of free frequencies & intensities used as MS applications. Principle of clinic uses indications, contraindications, precautions, and operational skills preparation.         4.       Iontophoresis: Definition, Physiological & Therapeutics effects, P Methods of Application, indications, contraindications, precautions.         UNIT-II         S.No.       MEDIUM FREQUENCY CURRENTS:         1.       Interferential Therapy (IFT): History of Interferential therapy (IFT)																							
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clinical application, effects, uses, indications, contraindications, preca							•											•••					•
skills of equipment & patient preparation. Theories of pain relief by IFT																						-	
2. Russian Currents (RC): Russian Currents (RC), Types of free																			ienc	y, 1	ouls	e v	vidths

	frequencies & intensities used as RC applications. Principle of clinical ap	plication effects,
	uses, indications, contraindications, precautions, and operational skills	of equipment &
	patient preparation.	
	UNIT-III	
S.No.	HIGH FREQUENCY CURRENTS-I:	08 Hours
1.	Ultrasound Therapy Unit (UST): Ultrasound therapy Unit (UST), Production	on, Physiologica
	& Therapeutics effects, Principle of application of Ultrasound therapy, Metho	ds of Application
	of UST, phonophorosis, effects, indications, contraindications, precautio	ons, and patien
	preparation.	
2.	Long Wave Diathermy (LWD): Long Wave Diathermy (LWD), Production,	, Physiological &
	Therapeutics effects, Principle of application of Long Wave Diathern	ny, Methods o
	Application of LWD, effects, indications, contraindications, precaution	ns, and patien
	preparation.	
3.	Extracorporeal Shock Wave Therapy (ECSWT): Brief overview	
	UNIT-IV	I
S.No.	HIGH FREQUENCY CURRENTS-II:	08 Hours
1.	Shortwave Diathermy (SWD): Shortwave Diathermy (SWD), Production,	
	Therapeutics effects, Principle of application of Shortwave Diatherm	•
	Application of SWD, types of electrodes, effects, indications, contraindication	ons, precautions
	dangers and patient preparation.	
2.	Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production	
2.	<b>Micro Wave Diathermy (MWD):</b> Micro Wave Diathermy (MWD), Production Therapeutics effects, Principle of application of Microwave Diatherm	ny, Methods o
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S.No. 1. 2. 3.	<ul> <li>Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production Therapeutics effects, Principle of application of Microwave Diatherm Application of MWD, effects, indications, contraindications, precautions, dar preparation.</li> <li>UNIT-V</li> <li>ELECTRO PHYSICAL AGENTS -I:</li> <li>Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological eff Application of Cryotherapy. Principle of clinical application, effects, us contraindications, precautions, and patient preparation. Theories of Cryotherapy.</li> <li>Paraffin Wax Bath: Paraffin wax bath, Principle of application of Pa Physiological effects, Methods of Application of PWB, effects, us contraindications, precautions, and patient preparation.</li> <li>Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydro- Physiological effects, Methods of Application of Hydro-collator Bath indications, contraindications, precautions, and patient preparation.</li> <li>Electrical Heating Pads: Electrical heating pads, Physiological effects, Methods of Application of Electrical heating pads, Physiological effects, Methods of Application of Electrical</li> </ul>	08 Hours ects, Methods o ses, indications pain relief by raffin wax bath ses, indications drocollatar Bath , effects, uses ion of Electrica al heating pads
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S.No. 1. 2. 3. 4.	<ul> <li>Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production Therapeutics effects, Principle of application of Microwave Diatherm Application of MWD, effects, indications, contraindications, precautions, dar preparation.</li> <li>UNIT-V</li> <li>ELECTRO PHYSICAL AGENTS -I:</li> <li>Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological eff Application of Cryotherapy. Principle of clinical application, effects, us contraindications, precautions, and patient preparation. Theories of Cryotherapy.</li> <li>Paraffin Wax Bath: Paraffin wax bath, Principle of application of Pa Physiological effects, Methods of Application of PWB, effects, us contraindications, precautions, and patient preparation.</li> <li>Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydro- Physiological effects, Methods of Application of Hydro-collator Bath indications, contraindications, precautions, and patient preparation.</li> <li>Electrical Heating Pads: Electrical heating pads, Principle of application effects, uses, indications, contraindications, precautions, and patient preparation.</li> <li>BOOKS RECOMMENDED:</li> </ul>	08 Hours ects, Methods o ses, indications pain relief by raffin wax bath ses, indications drocollatar Bath , effects, uses ion of Electrica al heating pads
S.No. 1. 2. 3. 4. 1. C	<ul> <li>Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production Therapeutics effects, Principle of application of Microwave Diatherm Application of MWD, effects, indications, contraindications, precautions, dar preparation.</li> <li>UNIT-V</li> <li>ELECTRO PHYSICAL AGENTS -I:</li> <li>Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological eff Application of Cryotherapy. Principle of clinical application, effects, us contraindications, precautions, and patient preparation. Theories of Cryotherapy.</li> <li>Paraffin Wax Bath: Paraffin wax bath, Principle of application of Pa Physiological effects, Methods of Application of PWB, effects, us contraindications, precautions, and patient preparation.</li> <li>Hydro-collator Bath: Hydro-collator Bath, Principle of application of Hydro- Physiological effects, Methods of Application of Hydro-collator Bath indications, contraindications, precautions, and patient preparation.</li> <li>Electrical Heating Pads: Electrical heating pads, Principle of application effects, uses, indications, contraindications, precautions, and patient preparation.</li> <li>BOOKS RECOMMENDED: TEXTBOOKS:</li> </ul>	08 Hours ects, Methods o ses, indications pain relief by raffin wax bath ses, indications drocollatar Bath , effects, uses ion of Electrica al heating pads

4.	Electrotherapy Explained- Low and Reed
5.	Electrotherapy in Rehabilitation-Meryl Roth Gersh
6.	Therapeutic modalities in rehabilitation-William E. Prentice
	REFERENCE BOOKS:
1.	
2.	

At th	e end of the semester the student will be able to:
1.	
2.	
3.	
4.	

SU	<b>IBJECT NA</b>	ME:	SU	RFACE A	NATOM	Y & PALPA	TION	SKILLS		
SU	<b>IBJECT CC</b>	DDE:			P	Г 205				
				(w.e.f. July	2015)					
	Hrs. / Wk.			Credits	,	Т	otal Ma	arks		
L	Т	Р	L	Т	Р	ТА	СТ	ESE		
2	1	0	2	1	0	15	25	60		
	3			3		40	)	60		
				VES OF 1						
and sof elbow a palpate palpatic and ma	ft tissue landn and wrist/hanc the landmark on skill to prepa	nark relatin d) and all r s, and prop are the stud	g to maj regions c minent a dents for	or extremity of the spine rea of the b more advan	joints, (foo (cervical, th ody for exa ced instruct	t/ ankle, knee horacic, lumbe mination. Ess ion concerning	e, hip, s er, pelvi ential o g physic	cating osseous shoulder girdle ic). Be able to bservation and cal examination its importance		
<u> </u>			Ουτι	INE OF TH	E COURSE	:				
UNITS						-	MINIM	UM NUMBER		
011110					•			FHOURS		
UNIT-I	INTRODUC SKILLS	INTRODUCTION OF SURFACE ANATOMY & PALPATION SKILLS								
UNIT-II	LANDMAR	-	04 Hours							
UNIT-III	LANDMARK LOCATION AND PALPATION SKILL OF U/E 04 Hours									
UNIT-IV								04 Hours 04 Hours		
UNIT-V	-V BASIC POSTURAL OBSERVATIONAL SKILL Total (Minimal)									
		I	otal (IVIIII		1			20 Hours		
0.11-								04.11.0.000		
S.No.	SKILLS:	TION OF	SURF	ACE ANA		PALPATIO	<b>N</b>	04 Hours		
1.	Terminology					on skill.				
2.	Principle of	surface m	arking a	nd palpatior	า					
3.	Types of pa	lpation and	d its use	s in assess	ment.					
4.	Ethical and	legal issue	es regard	ding palpation	on techniqu	les.				
				UNIT-	·II					
S.No.	LANDMAR	K LOCATI	ON ANI	D PALPATI	ON SKILL	OF SPINE:		04 Hours		
1.	Landmark loo	cation and	alpation	skill of Lumb	popelvic regi	ion.				
2.	Landmark loo	cation and	alpation	skill of Thora	acic Spine.					
3.	Landmark loo	cation and	calpation	skill of Cerv	ical and Occ	cipital region.				
				UNIT-						
S.No.	LANDMAR	K LOCATI	ON ANI	D PALPATI	ON SKILL	OF U/E:		04 Hours		
1.	Landmark loo	cation and	alpation	skill of Shou	Ilder Girdle.		I			
2.	Landmark loo	-	•							
3.	Landmark loo	cation and	calpation	skill of Wrist	& Hand					
				UNIT-	IV					
-	LANDMAR	KIOCAT								
S.No.		<b>N LUCAI</b>		DFALFAI	ION SKILL	OF L/E.	04 Hours			

2.	Landmark location and palpation skill of Knee.
3.	Landmark location and palpation skill of Hip.
	UNIT-V
S.N	o. BASIC POSTURAL OBSERVATIONAL SKILL: 04 Hours
1.	Normal body alignment, symmetry and plumb line.
2.	Observation of static and dynamic posture in various positions (sitting, standing & walking)
	and gait. BOOKS RECOMMENDED:
	TEXTBOOKS:
1.	A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stuar Kinsinger.
2.	Orthopaedics Physical Assessment. By D Magee.
3.	An Introduction of fundamental Anatomy by David Sinclair.
4.	Human Anatomy by B.D. Chaurasiya- All 3 volumes.
5.	Surface anatomy By John S.P. Lumley
6.	Surface and Radiological Anatomy By A. Halim
	REFERENCE BOOKS:
1.	
2.	

At th	he end of the semester the student will be able to:
1.	
2.	
3.	

SUBJECT NAME:				PSYCHO			PSYCHOLOGY & EXPERIMENTAL PSYCHOLOGY								
SL	JBJECT CC	DE:	PT 206												
			()	w.e.f. July 2	2015)										
	Hrs. / Wk.			Credits			Total Marks	5							
L	Т	Р	L	Т	Р	TA	СТ	ESE							
2	1	0	2	1	0	15	25	60							
	3			3			40	60							
knowle aging p & disea	e to define the dge of Psycho process. Be abl ase; environme treatment mod	term Psy logical ma le to under ental & en	chology 8 turation c stand the notional ir nmonly us	luring human importance on t	nce in the H developmo of psycholo he mind &	lealth delive ent & growl gical status	h; & alterati of the perso	ons during on in healtl							
UNITS		тіті	E OF THE	-	COONSE.	MINIMIM	NUMBER C								
UNIT-I	<b>^</b>						06 Hours								
UNIT-II							06 Hours								
UNIT-III							06 Hours								
UNIT-IV							06 Hours								
UNIT-V					06 Hours	06 Hours									
							30 Hours								
S.No.				UNIT-I			06	Houro							
5.NO. 1.	Definition	uliantian a	Of Hours           Definition, application and methods in psychology, Biology of Behavior, Sensory processes												
	LIPETINITION an	niication a	nd metho	nds in nsvcho	loav Bioloc	w of Rehav	ior Sensorv	nrocesse							
••	and perception learning, Mer	on, Princip	les of lea	arning, Class	ical and In ories, forget	strumental	Conditioning	processe , Cognitive							
	and perception	on, Princip	les of lea	arning, Class	ical and In ories, forget	strumental	Conditioning ia.	processe , Cognitive <b>Hours</b>							
S.No.	and perception	on, Princip nory, long Language king and la	And short and short Concept anguage of of motive	ts, thinking procession communications, motives to otions, physic	ical and In pries, forget rocess, prol on, Motivati know and plogy and a	strumental ting, amnes olem- solvin on, Biologic be effective	Conditioning ia. 06 g and decisi al and Soci e, Emotion a	, Cognitive Hours on making al motives							
<b>S.No.</b> 1.	and perception learning, Mer Thinking and creative think frustration an	on, Princip nory, long Language king and la	And short and short Concept anguage of of motive	ts, thinking process, motives to	ical and In pries, forget rocess, prol on, Motivati know and plogy and a	strumental ting, amnes olem- solvin on, Biologic be effective	Conditioning ia. g and decisi al and Soci e, Emotion a f emotion.	, Cognitive Hours on making al motives and Stress							
S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a	on, Princip nory, long Language king and la nd conflict nd percept	, Concept and short , Concept anguage of of motive ion of em uences, a	ts, thinking proceeds to the term memory of te	ical and Inspiries, forget rocess, proton, Motivati know and plogy and a hips, Attitu	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature	Conditioning ia. g and decisi al and Socia e, Emotion a f emotion. 06	, Cognitive Hours on making al motives and Stress Hours							
S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration an Expression a	on, Princip nory, long Language king and la nd conflict nd percept	, Concept and short , Concept anguage of of motive ion of em uences, a	arning, Class — term memo <b>UNIT-II</b> ts, thinking pro- communications s, motives to otions, physice <b>UNIT-II</b> and relations age, Behavior	ical and Inspiries, forget rocess, proton, Motivation know and plogy and a l hips, Attitue	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature	Conditioning ia. g and decisi al and Socia e, Emotion a f emotion. 06	, Cognitive Hours on making al motives and Stress Hours							
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S.No. 1. S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Face	on, Princip nory, long Language king and la id conflict nd percept ptions, infl ctors in atti	e, Concept and short anguage of of motive ion of em uences, a tude chan	arning, Class – term memo UNIT-II ts, thinking pro- communications s, motives to otions, physice UNIT-II and relations age, Behavior UNIT-IV	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature	Conditioning ia. g and decisi al and Socia e, Emotion a femotion. 06 and measu 06	, Cognitive Hours on making al motives and Stress Hours urement of Hours							
S.No. 1. S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Factor	on, Princip nory, long Language king and la nd conflict nd percept ptions, infl ctors in atti t- A Lifesp Defining an	and short and short , Concept anguage of of motive ion of em uences, a tude chan	arning, Class — term memo UNIT-II ts, thinking pro- communications s, motives to otions, physic UNIT-II and relations age, Behavior UNIT-IN Dective (infar g about perso	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude for the second second second for the second second second for the second second second for the second second second second for the second se	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature es.	Conditioning ia. 9 and decisi al and Socia a, Emotion a emotion. 06 and measu 06 cence, adult	, Cognitive Hours on making al motives and Stress Hours urement of Hours , old age							
S.No. 1. S.No. 1. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Factor Development Personality,	on, Princip nory, long Language king and la nd conflict nd percept ptions, infl ctors in atti t- A Lifesp Defining an	and short and short , Concept anguage of of motive ion of em uences, a tude chan	arning, Class <u>– term memor</u> <b>UNIT-II</b> ts, thinking pro- communications s, motives to otions, physice <b>UNIT-II</b> and relations ige, Behavior <b>UNIT-IN</b> pective (infar	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude for the second second second for the second second second for the second second second for the second second second second for the second se	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature es.	Conditioning ia. g and decisi al and Socia e, Emotion a f emotion. 06 and measu and measu 06 cence, adult sues and co	, Cognitive Hours on making al motives and Stress Hours urement of Hours , old age ntroversie							
1. S.No. 1. S.No. 1. S.No. S.No.	and perception learning, Mer Thinking and creative think frustration and Expression a Social perce attitudes, Factor Development Personality,	on, Princip nory, long Language king and la nd conflict nd percept ptions, infl ctors in atti t- A Lifesp Defining an	and short and short , Concept anguage of of motive ion of em uences, a tude chan	arning, Class — term memo UNIT-II ts, thinking pro- communications s, motives to otions, physic UNIT-II and relations age, Behavior UNIT-IN Dective (infar g about perso	ical and Inspries, forget rocess, proton, Motivation know and plogy and a hips, Attitu and attitude for the second second second for the second second second for the second second second for the second second second second for the second se	strumental ting, amnes olem- solvin on, Biologic be effective pplication of des, Nature es.	Conditioning ia. g and decisi al and Socia e, Emotion a f emotion. 06 and measu and measu 06 cence, adult sues and co	, Cognitive Hours on making al motives and Stress Hours urement c 6 Hours , old age							

#### **BOOKS RECOMMENDED:**

#### TEXTBOOKS: Morgan C.T., King R. A., Weijz J. R. Schopler J. 1. Introduction to Psychology, 7<sup>th</sup> edn. (Tata McGraw-Hill Publishing Co. Ltd.) 2. Human Development, 5<sup>th</sup>. (Tata McGraw Hill Publishing Co. Ltd 3. Munn N.L. Introduction to Psychology-(Premium Oxford, I.B.P. Publishing Co.) 4. 5. Parameshwaran E. G. & Ravichandra K. - Experimental Psychology: A Laboratory Manual (1<sup>st</sup> edn.) ( Seema Publications, Delhi ) Munn Julia (ed.) **REFERENCE BOOKS:** 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.

# STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to: 1. 2.

		SUBJ		ME:		EXF	ERCISE T	HERAPY LA	B	
			ECT CO					207		
					v.e.f. July	2017)		-		
		Hrs. / V	Vk		Credits			Total Marks		
L	_	T T	P.	L	T	Р	ТА			
0 0 4 0 0 4 30									ESE 40	
		4			2			60	40	
					/ES OF 1					
								on techniques,	effects,	
indio	catio	ons, and contra						herapy.		
			C	DUILIN	E OF TH	ECOUR	5E:			
S.N		TITLE OF TH							Hours	
1.			ints, muscl	e work, a	and stability	of various	s fundamen	tal and derived		
2.		positions. Different type	s of muscl	e contrac	tion muscl	e work an	oun action (	of muscles and		
۷.		coordinated m				o work, gr				
3.		Measurement								
4.			e grading	of muscle	e strength r	egion wise	upper limb	and lower limb		
E		and trunk.         Various techniques of progressive strengthening exercises of muscles region wise.								
<u>5.</u> 6.				•		•		is part of body-		
0.		region wise.	or suspen		apy and its	application		is part of body-		
7.			d functions	s along	with appli	cation of	various e	quipment in a		
		gymnasium.								
8.		Use of various Evaluate ADL								
<u>9.</u> 10.		Normal and al			<u>v</u>		ive technique	29		
10.					al (Minimal)				60	
				BOOK			•		·	
					TEXTBO					
1.	Ki	sner and Colb	y. F.A. Dav			-	dations and	Techniques		
2.		ardiner, Princip						· · ·		
3.		orkins & White				int Motion:	A Guide to C	Goniometry.		
4.		ood - W.B. Sa								
5.		endal, Muscle t								
6.		argarett Hollis,								
7.	НС	ollis, Lab Exerc	ise i nerap		ERENCE		JIIS.			
1.				ŇEF		<b>BOOK3</b> .				
2.										
3.	1									
4.										
5.										
			STUDENT		ING OUT	COMES/O	BJECTIVE	S:		
	e en	d of the semest	er the stude	nt will be a	able to:					
1.										
2.										

	SU					EL FCTR	OTHERAP	YLAR				
		BJECT (					PT 208	/\8				
	00			v.e.f. July	2015)		11200					
	Hrs. / Wk.			Credits	2010)		Total Marks					
L		Р	L	Т	Р	ТА	СТ	ESE				
0	0	4	0	0	4	30	30	40				
	4			2			60	40				
				/ES OF 1								
	course involves											
Indic	ations, and contra						used in Physio	therapy.				
		C	JUILIN	E OF TH	ECOU	JRSE:						
S.No		<b>TITLE OF THE UNIT -</b> Student should be able to explain the rationale for the prescription of safe and effective electrotherapy modalities.										
-												
1.						d safety device.	e of low					
2.	frequency curr			erves and f	nuscles	by various type						
3.				r nointe roc		e, including the	unner and low	or				
э.	limb, trunk & fa				3011 WISE		מאלה מות והאלי					
4.	,		ifferent lov	v frequency		s faradic foot b	ath faradism					
4.	Therapeutic application different low frequency currents faradic foot bath, faradism under pressure, lontophoresis.											
5.	TENS Stimulat	•		application	- region	wise						
6.	IFT-Its operation	•			-	WI3C.						
7.		•••		•		of application- r	egion wise					
8.						nod of application		<u>د</u>				
9.						od of applicatio						
10.			•			se including ice						
	vapocoolant sp	orays, etc.			0	0	· · ·					
11.						hod of applicat		э.				
12.		-				on - regionwise.						
13.		thermy uni	t, its opera	ation and d	ifferent r	nethods of appl	ication -					
14.	regionwise.	thormy unit	ite opore	tion and di	fforont m	nethods of appli	cation					
14.	regionwise.			auun anu ui		iethous of appli						
			Tota	al (Minimal)				60				
				S RECON		DED:						
4	Clayton's Electrot			TEXTBO	JKS:							
1. 2.	Clayton's Electroth Electrotherapy Ex		ada & Kid	hon								
2. 3.	Clinical Electrothe											
3. 4.	Electrotherapy Ex											
<del>4</del> . 5.	Electrotherapy in											
<b>6</b> .	Therapeutic mod				. Prentic	e						
				ERENCE								
1.												
2.												

4.

### STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

1.	
2.	
3.	

	SUBJI	ECT NA	ME:	SURFACE ANATOMY & PALPATION SKILLS LAB							
	SUBJ	ECT CO	DE:	PT 209							
	Hrs. / Wk.			Credits		s					
L	Т	Р	L	Т	Р	ТА	СТ	ESE			
0	0	2	0	0	2	50	50	00			
	2			1			)0	00			
		OE	BJECTI	VES OF		URSE:					
	irse involves a							l, indications			
and cont	tra-indications,						siotherapy.				
				IE OF TH							
S.No.						in the rational	e for the	Hours			
	prescription of safe and effective knowledge of surface anatomy and										
4		Palpation Skill. Terminology related to surface anatomy, and palpation skill.									
1.				-							
2.			0	1 1	ypes of pa	alpation and us	ses.				
3.	Normal body	0	,								
4.			•	namic postu	re in vario	ous positions	(sitting,				
	standing & w										
5.	Landmark lo		• •		•	0					
6.	Landmark lo										
7.	Landmark lo	cation and	palpatior	n skill of Cer	vical and C	Occipital region					
8.	Landmark lo	cation and	palpatior	n skill of Sho	ulder Girdl	e.					
9.	Landmark lo	cation and	palpatior	n skill of Elbo	OW.						
10.	Landmark lo	cation and	palpatior	n skill of Wri	st & Hand						
11.	Landmark lo	cation and	palpatior	n skill of Foc	d & Ankle.						
12.	Landmark lo	cation and	palpatior	n skill of Kne	е.						
13.	Landmark lo										
	1		Total	(Minimal)							

	BOOKS RECOMMENDED:							
TEXTBOOKS:								
1.	A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stuart							
	Kinsinger.							
2.	Orthopaedics Physical Assessment. By D Magee.							
3.	An Introduction of fundamental Anatomy by David Sinclair.							
4.	Anatomy of Chaurasiya- All 3 volumes.							
5.	Surface anatomy By John S.P. Lumley							
6.	Surface and Radiological Anatomy By A. Halim							
	REFERENCE BOOKS:							
1.								
2.								
3.								

# **STUDENT LEARNING OUTCOMES/OBJECTIVES:** At the end of the semester the student will be able to:

1. 2. 3.

# SCHEME OF EXAMINATION & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

			5	SCHE	ME OF	F EXA	MINA		N			
					Tŀ	IEORY	:					
				INTER	NAL A	SSES	SMEN	T (IA)				
						) Marks		. ,				
CI	LASS 1	EST (CT	)			TEA	CHER	ASSE	ESSM	ENT (	TA)	
MSE-1	MS	SE- 2 Makeup		ST-1	ST-2	Q-1			A-2		A-4	Attendance
25			25	5 5		5	5 5		5	5	5	5
	•		EN	ND SEM	ESTER	EXAM	INATIO	ON (ES	SE)	•	•	
					60	) Marks	5					
				INTER	NAL A			T (IA)				
						s Test (	CT)					
	1: 25 Ma	arks			3 (50%)				Tim	ne: 1:3	0 Hou	-
Q.No.					Models							Marks
1.	Multip	oles Choic	ce Ques		-	-					1	.5X5=7.5
					Questic			Unit			[	4 5
	a. i)			ii)			iii)		iv)			1.5 1.5
	b.	i)		ii)			iii)		iv) iv)			1.5
	c. d.	i)		ii) ii)			iii) iii)		iv)			1.5
	и. е.	i) i)		ii)			iii)		iv)			1.5
2.	e.     i)     ii)     iv)       Short Questions (any three)     Iii)     Iii)									2.5X3=7.5		
	a.									2.5×5=7.5		
	b.											2.5
	C.											2.5
	d.											2.5
	e.											2.5
3.	Long	Question	s (any t	wo)								5X2=10
	a.										5	
	b.											5
	C.											5
				End Se				(ESE)	)			
	MM: 6	0 Marks				21 (35	%)			Time		Hours
Q.No. Models Marks												
1.	Multip	ole Choice	e Quest			_	<u> </u>					1X12=12
		•	<u> </u>		Questic			Unit			1	
	a.	i)		ii)			iii)		iv)			1
	b.	i)		ii)			iii)		iv)			1
	C.	i)		ii)			iii)		iv)			1
	d.	i)		ii) ;;;			iii) iii)		iv)			1
	e. f.	i) i)		ii) ii)			iii)		iv) iv)			1
	т. g.	i)		ii)			iii)		iv)			1
	9. h.	i)		ii)			iii)		iv)			1
	i.	i)		ii)			iii)		iv)			1
		•7			,		,		••)		l	

	j.	i)	ii)	iii)	iv)	1
	k.	i)	ii)	iii)	iv)	1
	I.	i)	ii)	iii)	iv)	1
2.	Short Q	3X4=12				
	a.					3
	b.					3
	С.					3
	d.					3
	е.					3
	f.					3
3.	Short Q	3X4=12				
	a.					3
	b.					3
	C.					3
	d.					3
	е.					3
	f.					3
4.	Long Qu	6X2=12				
	а					6
	b.					6
	C.					6
4.	Long Qu	6X2=12				
	a.					6
	b.					6
	C.					6