

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTH 1st & 2nd Year

PROGRAM OUTCOME

PO1: Ability to acquire knowledge about normal- abnormal basic medical and human movement sciences, understand relevant investigations, role of drugs related to various medical conditions, surgical treatment and application of physiotherapy interventions.

PO2: Understand moral value, professional ethics and accountability towards patient and colleagues Develop good behaviors skills with confidentiality and humanitarian approach maintaining the respect and privacy of patient.

PO3: Demonstrate the ability to provide evidence based practice for prevention, correction and rehabilitation of the patient.

PO4: Demonstrate the ability to acquire good listening potential with effective interpersonal and intra personal communication skills.

PO5: Extend the acquired knowledge to conduct research activities and publications that contribute to the upliftment in field of physiotherapy and betterment of society.

PO6: Demonstrate ability to acquire new knowledge skill and reflect upon their experience to enhance personal, professional growth and apply the information for patient care.

FIRST YEAR B.PTh.

COURSE OUTCOMES

	ANATOMY
CO1	Dissect and identify the normal disposition, inter relationship, gross functional and applied anatomy of various structures in the cadaver.
CO2	Ability to identify the microscopic structures of basic tissues, organs in the human body and basic principles of embryology in stages of normal development.
CO3	Demonstrate different movements of joints, there attachments, palpate important bony landmarks.
CO4	Identify and describe various parts, structures and blood circulation of CNS and spinal cord. Describe the course of peripheral nerves and its importance. Understand anatomical basis of clinical conditions of nervous system.
CO5	Identify and describe various structures, mechanism, blood supply of cardiovascular and respiratory system and understand its anatomical basis of clinical conditions.
CO6	Ability to understand the knowledge of systemic anatomy, abdomen, endocrine and exocrine system and sensory organs with their applied anatomy.
CO7	Demonstrate the knowledge and application of imaging techniques and interpretation of radiogram.
	PHYSIOLOGY
CO 1	Acquire the knowledge of general physiology and its contribution in each organ system to maintain homeostasis.

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

CO 2	Understand the basic physiological functions of various systems with special emphasis on Musculo-skeletal, Neuro-motor, cardio-respiratory, endocrine and uro-genital function and alteration in function with aging.
CO 3	Acquire the knowledge about structure and function of special sense organs and its applied physiology (eye & ear).
CO 4	Acquire the skills of basic clinical examination with special emphasis to peripheral and central nervous system, cardiovascular and respiratory system and exercise tolerance/ Ergography.
CO 5	Analyze physiological response and adaptation to environmental stresses with special emphasis on physical activity, attitude, and temperature.
CO 6	Explain and correlate the applied physiology of diseases and disorders related to organ systems of body which are commonly treated by the physiotherapist.
	BIOCHEMISTRY
CO 1	Acquire and demonstrate the knowledge of formation, functioning and fate of biomolecules , their normal and abnormal levels to understand the disease process and their clinical interpretation.
CO 2	Acquire the knowledge of vitamins, minerals their functions, deficiency manifestations and their role in daily nutritive requirements.
CO 3	Acquire the knowledge about healthy balanced diet with its nutritive importance and dietary deficiencies.
CO 4	Describe the fundamentals aspect of enzymes and hormones with their role in various metabolic disorders where in regulation of enzymatic and hormonal mechanism is altered.
CO 5	Ability to understand mechanism and biochemical events in connective tissue.
	FUNDAMENTALS OF KINESIOTHERAPY AND KINESIOLOGY
CO 1	Understand basic principles of biomechanics, biophysics and application of these principles in Kinesiotherapy.
CO 2	Understand classification of joints and muscles, types of movements along with their distinguishing characteristics. Demonstrate various starting and derived position used in therapeutics.
CO 3	Acquire the skills of assessment of basic evaluation like sensations, reflexes and vital parameters and also the skills of objective assessment of range of motion by goniometry.
CO 4	Understand physiological principles and acquire the skills of application of therapeutic massage.
CO 5	Acquire the knowledge on physiological basis and principle of relaxation and the skills of relaxation methods. Understand principles of aerobic exercises for general fitness and demonstrate fitness skills on self and group.
CO 6	Acquire the knowledge on physiological principles and skills of performing Pranayama and Yogasan for maintaining general fitness.
	FUNDAMENTALS OF ELECTROTHERAPY
CO 1	CO1: Ability to acquire basic physics principles, laws of electricity, electromagnetic spectrum, common electrical components, fundamentals of currents, sound waves and their effects.

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

CO 2	CO2: Ability to understand effects of environmental and manmade electromagnetic field at the cellular level and risk factors on prolong exposure.
CO 3	CO3: Describe and identify various types of electrodes used in electrotherapy, electrical skin resistance and significance of various media used to reduce skin resistance.
CO 4	CO4: Acquire knowledge of various superficial thermal agents and their skills of application.
CO 5	CO5: Ability to understand types and production of various therapeutic electrical currents and in application on different electrotherapeutic modalities.

MAPPING OF PROGRAM OUTCOMES & COURSE OUTCOMES

ANATOMY	PO1:	PO2	PO3	PO4	PO5	PO6
CO1	XXX	XXX	X	XXX	X	X
CO2	XXX	XX	X	XXX	X	X
CO3	XXX	XX	X	XXX	X	X
CO4	XXX	XX	X	XXX	X	X
CO5	XXX	XX	X	XXX	X	X
CO6	XXX	XX	X	XXX	X	X
CO7	XXX	XX	X	XXX	X	X
PHYSIOLOGY	PO1:	PO2	PO3	PO4	PO5	PO6
CO 1	XXX	XX	X	XX	X	X
CO 2	XXX	X	X	XX	X	X
CO 3	XXX	X	X	XX	X	X
CO 4	XXX	XX	X	XXX	X	X
CO 5	XXX	XX	X	X	X	X
CO 6	XXX	X	X	XXX	X	X
BIOCHEMISTRY	PO1:	PO2	PO3	PO4	PO5	PO6
CO 1	XXX	X	X	X	X	X
CO 2	XXX	X	X	X	X	X
CO 3	XXX	X	X	XX	X	X
CO 4	XXX	X	X	X	X	X
CO 5	XXX	X	X	X	X	X

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

FUNDAMENTALS OF KINESIOTHERAPY AND KINESIOLOGY	PO1:	PO2	PO3	PO4	PO5	PO6
CO 1	XXX	XX	X	XXX	X	X
CO 2	XXX	XXX	X	XXX	XX	X
CO 3	XXX	XX	X	XX	X	X
CO 4	XXX	XX	X	XX	X	X
CO 5	XXX	XX	X	XX	XX	X
CO 6	XXX	XX	X	XX	X	X
FUNDAMENTALS OF ELECTROTHERAPY	PO1:	PO2	PO3	PO4	PO5	PO6
CO 1	XXX	X	X	X	X	X
CO 2	XXX	X	X	X	X	X
CO 3	XXX	XX	X	XXX	X	X
CO 4	XXX	XX	XX	XXX	X	X
CO 5	XXX	XX	XX	XXX	X	X

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

2ND YEAR BPTh.

COURSE OUTCOMES	
KINESIOLOGY	
CO1	Understands the principles of Biomechanics
CO2	Acquire the knowledge of kinetics & kinematics of Spine, Extremities, Thoracic Cage
CO3	Acquire the knowledge of musculoskeletal movements during normal gait & activities of daily living
KINESIOTHERAPY	
CO1	Understand the Biophysical properties of connective & non connective tissue & mechanical loading, & factors with which influence the muscle strength & mobility of articular & particular soft tissue.
CO2	• Apply the biomechanical principles for the efficacy in the assessment methods & Acquire the skills of subjective & objective methods of muscle strengthening, joint mobility, muscle stretching, muscle testing.
CO3	• Describe the physiological effects, therapeutic uses of Hydrotherapy & Demonstrate various therapeutic exercises on self & acquire the skill of application on models with home program
CO4	• Analyze the correct & faulty posture & all views of posture and acquire the knowledge of postural mechanism & factors affecting on posture, motor control, postural control & balance.
CO5	• Demonstrate & acquire the skills of functional reeducation techniques on models & also skills of balance & co-ordination exercise.
CO6	• Acquire the skill of using various walking aids for training of gait.
CO7	• Acquire the knowledge & skills of demonstrating breathing exercise postural drainage techniques.
MICROBIOLOGY	
CO1	Knowledge about scope & the subject with classification of various Micro-organisms & best methods to prevent the development of infections in sets and patients (Universal safety precautions)
CO2	• Demonstrate knowledge about laboratory diagnosis of the different micro-organisms causing infections epidemiology & prevention of the disease, prophylaxis
CO3	• Knowledge about immunity its types, structure and function various antigen antibody reactions with its application.
CO4	Demonstrate the knowledge of etio-pathogenesis of different micro-organisms (bacteria, viruses, fungi and parasites)
CO5	Knowledge of prevalent communicable diseases and the agents responsible for causing clinical infections pertaining to CNS, CVS musculoskeletal, respiratory, genitourinary, wound infections and of newer emerging pathogens.
PATHOLOGY	

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTH 1st & 2nd Year

CO1	Describe the concept of call injury & change produced by different tissues, organs & capacity of the body in healing process
CO2	· Acquire the knowledge of common immunological circulatory disorders vitamin deficiency & their resultant effects on the human body
CO3	· Develop an understanding of neoplastic change in the body in appreciate need for early diagnostic & their management of neoplasia.
CO4	· Recall the Etiology pathogens, pathological effects & the clinic-pathological correlation of common infections & non-infections diseases.
CO5	Understand correlate normal & alternate morphology of different organ system in different diseases needed for understanding disease process their clinical significance
CO6	· Understand in brief, about the common hematological disorders & investigations necessary to diagnose them.
	PHARMACOLOGY
CO1	· Describe the Pharmacokinetics & Pharmaco dynamics, indication & contra -indication interactions & adverse reactions, precautions, formulation & route of drug administration of various drug.
CO2	· Demonstrate knowledge about various drugs acting on CNS autonomic nervous system CVS, respiratory system, endocrine system, CIT tract,
CO3	Demonstrate knowledge about various haematinic & dermatological drugs
	PSYCHIATRY
CO1	Understand the increasing awareness of psycho-social issues faced by individual with its significance at various points on the continuum of health & disability
CO2	· Understand the term psychology with its importance in the health delivery system. Knowledge of psychological maturation during human development & growth with alterations during aging process.
CO3	Interpret theories of learning and its role in human life with the importance of psychological status in health & disease Environmental & emotional influence on the mind & personality
	PSYCHOLOGY
CO1	Evaluate psychiatric history a mental status Examination of Schizophrenia, Anxiety, personality somatoform, childhood & Adolescence, Organic brain disorder, mood & eating disorders, with geriatric psychology
CO2	· Knowledge about management of various psychiatric disorders with the help of ECT, pharmacotherapy group therapy, psycho therapy, cognitive behavioural therapy & rational emotive therapy.

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

2ND YEAR BPTh SYLLABUS MAPPING

ELECTROTHERAPY

Topic	CO1	CO2	CO3	CO4	CO5
Pain	Strong	Strong	Moderate	Weak	Weak
Low Frequency Current	Strong	Strong	Weak	Weak	Weak
Medium Frequency Currents	Strong	Strong	Weak	Weak	Weak
Biofeedback	Weak	Strong	Weak	-	-
High Frequency Current	Moderate	Strong	Strong	Weak	-
Ultra Sound	Strong	Strong	-	-	-
Action therapy	Moderate	Weak	Moderate	Strong	Strong
Electrotherapy : Wound care	-	Moderate	Strong	Strong	Strong

KINESIOLOGY

Topic	CO1	CO2	CO3
Introduction To Biomechanics	Strong	Moderate	Weak
Regional Kinesiology	Moderate	Strong	Weak
Kinetics & Kinematics Of Gait & ADL	Weak	-	Strong

KINESIOTHERAPY

Topic	CO1	CO2	CO3	CO4	CO5	CO6	CO7
Biophysics	Strong	Strong	Strong	-	Weak	-	-
Posture	Moderate	Weak	Moderate	Strong	Weak	Moderate	Weak

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

Motor & Postural Control And Balance	Weak	Weak	Weak	Strong	Strong	Moderate	-
Functional Reeducation	-	Weak	Strong	Strong	Strong	Moderate	-
Neuromuscular Co-Ordination	-	Weak	Moderate	Moderate	Strong	Strong	-
Gait & Walking Aids	Weak	Weak	Weak	Moderate	Moderate		-
Bronchial Hygiene	Weak	-	-	-	-	-	Strong

PHARMACOLOGY

Topic	CO1	CO2	CO3	CO4
General Pharmacology	Strong	Strong	Strong	Strong
Drugs Acting On C.N.S	Strong	Strong	-	-
Drugs Acting On Autonomic Nervous System	Strong	Strong	-	-
Drugs Acting On C.V.S.	Strong	Strong	-	-
Drugs Acting On Respiratory System	Strong	Strong	-	-
Chemotherapy	Strong	-	Strong	-
Other Chemo Therapeutic Drugs	Strong	-	Strong	-
Endocrine	Strong	Strong	-	-
Drugs In G.I. Tract	Strong	Strong	-	-
Haematinics	Strong	-	Strong	-
Dermatological Drugs	Strong	-	-	Strong

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTH 1st & 2nd Year

PATHOLOGY

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General Pathology	Strong	Moderate	Weak	Moderate	-	-
Inflammation & Repair	Strong	Moderate	-	Weak	Moderate	-
Immuno –Pathology	-	Strong	Strong	Weak	-	-
Circulatory Disturbances	Weak	Strong	-	Weak	-	Weak
Pathologic Changes In Vitamin Deficiencies	-	Strong	-	-	-	-
Growth Disturbances	Weak	-	Strong	-	-	-
Medical Genetics	-	-	Strong	-	Moderate	-
Specific Pathology	Weak	Weak	-	Strong	Strong	-
Muscular Disorders	Weak	-	-	Strong	Strong	-
Neuro-Muscular Junction	Weak	-	-	Strong	Strong	-
Bone & Joints	Weak	-	Moderate	Strong	Strong	-
G.I. System	Weak	-	-	Strong	Strong	-
Endocrine	Weak	Moderate	-	Strong	Strong	-
Hepatic Diseases	Weak	-	-	Strong	Strong	-
Clinical Pathology	Weak	-	Weak	-	-	Strong

MICROBIOLOGY

Topic	CO1	CO2	CO3	CO4	CO5
General Microbiology	Strong	Moderate	-	Weak	-
Laboratory Diagnosis Of Infection	Weak	Strong	Weak	Weak	Moderate

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTH 1st & 2nd Year

Immunology	-	Weak	Strong	-	-
Systemic Bacteriology	Moderate	Moderate	-	Strong	Strong
Mycology	Weak	Moderate	-	Strong	Strong
Virology	Weak	Moderate	-	Strong	Strong
Parasitology	Weak	Moderate	-	Strong	Strong
Applied Microbiology	-	Moderate	-	Moderate	Strong

PSYCHIATRY

Topic	CO1	CO2	CO3	CO4	CO5
a. Psychiatric History & Mental Status Examination	Weak	Moderate	Moderate	Strong	Strong
b. Classification of Mental disorders	Moderate	Strong	Strong	Strong	Strong
c. Schizophrenia & its types	Moderate	Strong	Strong	Strong	Strong
d. Other psychotic disorders	Strong	Strong	Strong	Strong	Strong
e. Mood disorder	Strong	Strong	Strong	Strong	Moderate
f. Organic brain disorders (delirium, dementia, Amnestic syndromes, Organic personality disorder,)	Strong	Strong	Strong	Strong	Moderate
g. Anxiety disorders	Strong	Strong	Strong	Strong	Moderate
h. Somatoform disorder,	Moderate	Strong	Strong	Strong	Weak
i. Somatization disorder	Weak	Strong	Strong	Strong	Weak
j. Personality disorder	Weak	Moderate	Moderate	Strong	Moderate
k. Substance related disorder (alcohol)	Weak	Weak	Weak	Strong	Weak

D Y PATIL COLLEGE OF PHYSIOTHERAPY
PROGRAM OUTCOMES & COURSE OUTCOMES
BPTh 1st & 2nd Year

l. Disorders of infancy – childhood & adolescence	Strong	Strong	Strong	Strong	Strong
m. Geriatric Psychiatry	Weak	Strong	Strong	-	Strong
n. Eating disorder	Weak	Moderate	-	Strong	Weak
o. Management:	Moderate	Moderate	Moderate	Moderate	Strong

PSYCHOLOGY

Topic	CO1	CO2	CO3	CO4	CO5
a) Psychology: Definition, understanding, Nature & its fields	Strong	Strong	Weak	Moderate	Moderate
b) Developmental psychology and its theories in brief	Strong	Strong	Weak	Moderate	Strong
c) Learning: Theories of learning,	Weak	Weak	Strong	Weak	Weak
d) Memory – types – Forgetting causes	Weak	Weak	Weak	Strong	Moderate
e) Attention & perception	Weak	Weak	Weak	Strong	Weak
f) Motivation and theories: Types of Common Defence mechanisms, Stress	Weak	Weak	Moderate	Moderate	Strong