

# **JYOTI RAO PHULE SUBHARTI COLLEGE OF PHYSIOTHERAPY**



**SWAMI VIVEKANAND SUBHARTI UNIVERSITY**

**MEERUT**

**PROGRAMME:**

**BACHELOR OF PHYSIOTHERAPY**

उत्तिष्ठत जाग्रत प्राप्य वरान्निबोधत

**Programme & Course Outcomes**

Programme Name & Outcomes	Course Name & Outcomes
<p data-bbox="177 315 707 349"><b><u>BACHELOR OF PHYSIOTHERAPY</u></b></p> <p data-bbox="284 371 600 409"><b>Program Outcomes</b></p> <p data-bbox="145 499 738 580">After successful completion of the programme, an individual will be able to:</p> <p data-bbox="145 647 738 882"><b>PO1 KNOWLEDGE:</b> Graduates will adopt of physical therapy services using theoretical and practical knowledge with consideration for patients in clinical judgment.</p> <p data-bbox="145 949 738 1184"><b>PO2 LEARNING SKILLS:</b> Ability to reflect theoretical and practical knowledge on assessment planning, implementation in physiotherapy practice requiring for individual rehabilitation.</p> <p data-bbox="145 1252 738 1435"><b>PO3 PROFESSIONAL ETHICS:</b> Graduate will achieve moral principles and values that out to guide the professional ethical rules and legislation.</p> <p data-bbox="145 1503 738 1686"><b>PO4 ANALYTIC SKILLS:</b> Ability to consider new ideas, and uses the knowledge to collect data and analyze accurately to complete research project.</p> <p data-bbox="145 1753 738 1890"><b>PO5 SOCIAL AWARENESS:</b> The graduate will demonstrate the impact of physiotherapy knowledge on the society.</p> <p data-bbox="145 1957 738 2038"><b>PO6 LIFE LONG LEARNING:</b> Develop educational experience for proficiency in</p>	<p data-bbox="794 327 1422 407"><i>Upon the completion of this course, the student will able to-</i></p> <p data-bbox="954 439 1262 472"><b><u>HUMAN ANATOMY</u></b></p> <p data-bbox="767 546 1449 627"><b>CO-1</b> To know about the general anatomy &amp; histology of connective tissue.</p> <p data-bbox="767 707 1449 853"><b>CO-2</b> Understand the theoretical and practical knowledge of musculoskeletal system which is useful in clinical judgment.</p> <p data-bbox="767 934 1449 1126"><b>CO-3</b> Ability to know the theoretical &amp; practical knowledge of Nervous system including Central Nervous System cranial nerve, peripheral nerve.</p> <p data-bbox="767 1207 1449 1288"><b>CO-4</b> illustrate about the systemic anatomy of alimentary, urinary and genital system.</p> <p data-bbox="767 1368 1449 1514"><b>CO-5</b> Understand the theoretical &amp; practical knowledge of cardiovascular &amp; respiratory system which is useful in clinical aspect.</p> <p data-bbox="767 1594 1449 1740"><b>CO-6</b> Understand the anatomical bases of clinical condition of abdomen, sensory organ, endocrine &amp; exocrine system.</p> <p data-bbox="767 1821 1449 1901"><b>CO-7</b> Ability to know about the radiology of specific region in related to clinical aspect.</p>

profession and promote preventive and rehabilitative aspects of healthy individual.

### **HUMAN PHYSIOLOGY**

- CO-1** To, know about the adequate knowledge of general physiology of cell, blood, nerve and muscle.
- CO-2** Understand the theoretical and practical knowledge of nervous system, its classification with physiology of voluntary movement.
- CO-3** Ability to understand the excretory system and function with applied physiology.
- CO-4** Understand the physiological bases of endocrine system and function in relation to clinical judgment.
- CO-5** Understand the physiology of reproductive systems and physiological changes during pregnancy.
- CO-6** Illustrate about the human physiology of respiratory system diagrams.
- CO-7** To know the theoretical and practical knowledge of CVS and GIT system with applied.

### **BIOCHEMISTRY**

- CO-1** Understand the knowledge of carbohydrates its metabolism and protein with its structure.

**CO-2** To know about enzymes factor affecting and its therapeutic uses.

**CO-3** To know about the vitamins and its deficiency manifestation sources.

**CO-4** Illustrate about the minerals, functions and its deficiency manifestation.

**CO-5** To know about hormones and nutrition with mechanism.

**CO-6** Understand the knowledge of clinical biochemistry with demonstration.

**CO-7** Understand muscle contraction mechanism and connective tissue biochemistry.

**FUNDAMENTALS OF EXERCISE THERAPY**

**CO-1** To know about mechanics biomechanics and kinesiology.

**CO-2** Understand to know Biophysics related to kinesiotherapy.

**CO-3** Understand clarification of movement, muscle work related to exercise therapy.

**CO-4** Understand basic evaluation of vitals sensation and reflex testing.

**CO-5** To know about theoretical and practical knowledge of massage techniques.

**CO-6** Understand relaxation techniques, its principles along with their effects & uses.

**CO-7** To know aerobic condition and basic principles of general fitness.

### **FUNDAMENTALS OF EXERCISE THERAPY**

**CO-1** To know about medical electronics and electricity.

**CO-2** Understand fundamentals of low frequency and high frequency currents.

**CO-3** Enumerate types and production of various therapeutic currents and describe the panel diagram of the mechanics.

**CO-4** Identify various types of electrodes used in therapeutics and significance of various media used in reducing skin resistance.

**CO-5** Analyze the working of the various electrotherapeutic equipments.

### **SOCIOLOGY**

**CO-1** Understand the definition, relevant with physiotherapy on social factor effecting health status, decision making and taking treatment.

**CO-2** Illustrate the concept, influence of formal and informal social factors on personality, socialization in hospital and rehabilitation setting

**CO-3** To identify role of rural and urban communities in public health, practices and home remedies in treatment

**CO-4** Identify the role social security, role of medical social worker and the role of NGO's

**CO-5** Understand the role of social planning in the improvement of health & in rehabilitation.

**CO-6** Understand the role of norms, customs, morals, religion, law & other means of social controls in the regulation of Human Behavior and disease.

**CO-7** To know about role of NGO's social support system in relation to disabled.

**CO-8** Understand the role of a medical social worker.

**CO-9** To know the sociology of brain death/ organ donation.

**YOGA**

**CO-1** To know about the basic principles of biophysics relative to mechanics of movement/ motion and understand the efficacy of various position used in therapeutic

**CO-2** Understand the definition, principal of yoga and their benefits and cautions for each Asanas.

**CO-3** Describe Asanas in various positions in their physiological changes occur in body.

**CO-4** Acquire skills of performing Pranayama and Yogasanas

### **ENGLISH**

**CO-1** Projecting the first impression.

**CO-2** Use simple forms of polite expressions to establish basic social contact and to perform everyday functions including making requests and offers, conducting simple phone conversations, asking and telling time, giving simple directions, asking about price, ordering a meal, etc.

**CO-3** Students learn to use general, social and professional language.

**CO-4** Polishing manners to behave appropriately in social and professional circles.

**CO-5** Handling difficulty situations with grace style and professionalism.

### **ENVIRONMENTAL STUDIES:**

**CO-1** To understand the concept and function of

the environment and recognize the physical, chemical, and biological components of the earth's systems and their functions.

**CO-2** To acquire the awareness on the ecosystem structure and process which interlinked with human survival, intensively need attention at global and regional level.

**CO-3** To identify common and adverse impacts of human activities on biotic communities, soil, water, and air quality and suggest sustainable strategies to mitigate these impacts.

**CO-4** Develop an understanding of environmental pollutions and hazards and general measures to control them.

**CO-5** To identify surrounding natural resources including renewable resources and non-renewable resources and practices for their restoration.

**CO-6** To realize the importance of biodiversity for maintaining ecological balance and Global conservation practices and strategies.

**CO-7** To analyze the need for sustainable development in respect of environmental management through Policies, movements and social awareness.



## PATHOLOGY

**CO – 1.** Recall etiology pathogenesis and clinic-pathological correlation of common infections & non-infections disease.

**CO – 2.** Illustrate the knowledge of cell injury and its healing process.

**CO – 3.** Describe normal and altered different organ system in different diseases and their clinical significance

**CO – 4.** Understand common hematological disorders and investigations necessary to diagnose them.

## MICROBIOLOGY

**CO – 1.** Know about prevalent communicable diseases

**CO – 2.** Describe the agents responsible for causing clinical infection to CNS, Musculoskeletal Respiratory, and Genitourinary system.

**CO – 3.** Illustrate the best method to prevent the development of infection.

**CO – 4.** Understand to recognize the sign and symptom considered red flag for serious diseases.

## **PSYCHIATRY (INCLUDING PSYCHOLOGY)**

**CO – 1.** Know about importance of psychology in health delivery system

**CO – 2.** Understand etiology, pathology symptoms and management of various conditions

**CO – 3.** Understand patients empathetically.

**CO – 4.** Illustrate the development of personal professional attitude and value in relation to the therapeutic practice.

## **ELECTROTHERAPY**

**CO – 1.** Reconciling modalities for pain modulation.

**CO – 2.** Illustrate the skill of application of the electrotherapy modes for the purpose of treatment application.

**CO – 3.** To be able to apply knowledge of appropriate mode as per tissues specific and area specific and area specific application

**CO – 4.** Understand the physiology and therapeutic effect of low / medium and high frequency modes

## **PHARMACOLOGY**

**CO – 1.** Know about history, routes of drugs administration, source and classification

of drugs.

**CO – 2.** Understand the basics knowledge of pharmacology including physiological response and adverse effects of drugs

**CO – 3.** Describe pharmacological effects of commonly used drugs by patient referred for physiotherapy

**CO – 4.** Identify the pharmacology drugs interferes with the therapeutic response

**CO – 5.** Recall axis and plane of spine and extremities

### **SURGERY**

**CO – 1.** Describe the effect of surgical trauma and anesthesia in general

**CO – 2.** To be able to evaluate and describe the surgical management of general, cardiovascular and thoracic surgery and reconstruct the surgeries

**CO – 3.** Identify and interpret findings of the relevant investigations.

### **ORTHOPEDICS**

**CO – 1.** To be able to discuss etiology, clinical symptoms and management of various musculoskeletal conditions.

**CO – 2.** Illustrate the clinical examination, special test and interpretation of pre & post operative cases.

**CO – 3.** To be able to read and interpret features of X-ray and co-relate with the clinical findings

**CO – 4.** Understand the treatment started according with upgradation need to be match with patient condition

### **MEDICINE**

**CO – 1.** Identify and describe the etiology, pathology clinical symptoms and management of cardiovascular and respiratory condition.

**CO – 2.** Knowledge of various drugs used for each medical condition to understand its effects and uses during therapy

**CO – 3.** Understand skill of history taking and clinical examination of neurological and paediatric conditions as a part of clinical teaching

**CO – 4.** Be able to acquire the skills of basic life support and describe the principles of management at the intensive care unit

## **BIOMECHANICS**

**CO – 1.** Know about the introduction of biomechanics

**CO – 2.** Understand the principles of biomechanics

**CO- 3.** Acquire the knowledge of kinetics and kinematics

**CO – 4.** Acquire the knowledge of musculoskeletal movement during normal gait and ADL

**CO – 5.** Recall axis and plane of spine and extremities

## **NEUROLOGY**

**CO – 1.** Know about the various neurological describe and regional neuropathy

**CO – 2.** Understand etiology, pathophysiology sign and symptoms and management of the various neurological conditions

**CO – 3.** Acquire the skill of history taking and clinical examination of neurological conditions

**CO – 4.** Acquire the knowledge of various drugs used for each medical condition to understand its effects and its use during therapy.

## **PAEDIATRICS**

- CO – 1.** Know about the various paediatrics conditions in spine and extremities
- CO – 2.** Describe etiology, pathophysiology sign and symptom and management of the various paediatrics conditions.
- CO – 3.** Describe normal development and growth of a child, importance of Immunization, breast feeding and psychological aspect of development
- CO – 4.** Acquire skill of clinical examination of neonate /child with respect of neurological musculoskeletal and respiratory function

## **MUSCULOSKELETAL PHYSIOTHERAPY**

- CO – 1.** Know about the primary and secondary musculoskeletal dysfunction based on biomechanical kinesiological and pathophysiological principles.
- CO – 2.** Understand the physiotherapy diagnosis with skilful evaluation of structure and function with clinical reasoning
- CO – 3.** Understand the pharmaco-therapeutics its interaction with physiotherapeutic measures and modify physiotherapeutic intervention

**CO – 4.** Acquire ethical skill by demonstrating safe, respectful and effective performance of physical handling techniques taking into account the patient's clinical condition, the need for privacy, the resource available and the environment

### **NEUROPHYSIOTHERAPY**

**CO – 1.** Know about the identification and analyze movement dysfunction due to neuromuscular skeletal disorders in terms of biomechanical and biophysical basics correlate the same with health condition

**CO – 2.** Understand the routine electro physiological, radiological and biochemical investigation and arrive at appropriate physical therapy diagnosis using WHO – ICF with clinical reasoning

**CO – 3.** Able to plan realistic goal based on the knowledge of prognosis of the diseases of the nervous system and prescribe appropriate, safe evidence based physiotherapy intervention

**CO – 4.** Understand infection control principles, best practices and techniques applicable to a range of setting where client with neurological conditions.