

BHARATI VIDYAPEETH (Deemed to be University) SCHOOL OF PHYSIOTHERAPY

Pune- Satara Road, Dhankawadi, Pune 411043

Tel:-(020) 40555555, 24372223

E-mail: sopt.pune@bharatividyapeeth.edu **Website**: bvuniversity.edu.in

FYBPTh Course Outcomes

1. Human Anatomy:

- Understand the structure and organization of the human body, including major organs, systems, and anatomical regions.
- Identify and describe the different anatomical structures, such as bones, muscles, nerves, blood vessels, fascia, ligaments and joints.
- Demonstrate knowledge of anatomical terminology and its application.
- Develop skills in anatomical dissection, visualization, and identification of anatomical structures.
- Relate anatomical knowledge to clinical applications in physiotherapy practice.

2. Human Physiology:

- Understand the normal functioning of the human body and its various systems.
- Describe the physiological processes involved in different bodily functions, such as Cellular morphology, Composition of blood, cardiovascular, respiratory, musculoskeletal, digestive, endocrine, excretory, nervous systems and exercise physiology.
- Explain the mechanisms of homeostasis and the regulation of physiological processes.
- Understand the integration and coordination of different organ systems in maintaining overall health and function.
- Relate physiological principles to clinical scenarios and their relevance to physiotherapy interventions.

3. Biochemistry:

- Understand the basic principles and concepts of biochemistry.
- Describe the structure and function of biomolecules, such as proteins, carbohydrates, lipids, nucleic acids, minerals and vitamins.
- Explain the biochemical pathways involved in energy production, metabolism, and cellular processes.
- Understand the role of enzymes and their regulation in biochemical reactions.
- Relate biochemistry to physiological processes and their implications for health and disease.

Understand the biochemical markers for diagnosis of various diseases and conditions.

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4. Fundamentals of Kinesiology & Kinesiotherapy:

- Understand the principles and concepts of kinesiology, which involves the study of human movement.
- o Understand the principles of human movement and biomechanics. .
- Understand the principles and concepts of joint kinematics and kinetics to assess and explain movements.
- Demonstrate knowledge of anatomical structures, joint mechanics, and musculoskeletal function related to movement.
- Apply the principles of biomechanics to analyse human movement & posture
- Identify and describe different types of movements, muscle actions, and joint actions.
- Analyze and evaluate complex movements and postures using advanced kinesiological concepts.
- Relate the understanding of kinesiology to the assessment and treatment of movement-related dysfunctions in physiotherapy practice.

5. Fundamentals of Electrotherapy:

- Understand the principles and production of electrotherapy modalities in physiotherapy practice.
- Understand the physiological and therapeutic effects of electrotherapy modalities like high frequency, medium and low frequency modalities and actinotherapy.
- Explain physiological, therapeutic effects, indications, contraindications application of superficial thermal agents.
- Develop skills in the safe and effective use of electrotherapy modalities for pain management, tissue healing, and rehabilitation purposes.





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II BPTh COURSE OUTCOME

1. Kinesiology:

- o Understand the principles of human movement and biomechanics in greater depth.
- Analyse and evaluate complex movements and postures using advanced kinesiology concepts.
- Apply knowledge of joint kinematics and kinetics to assess and explain movement impairments.
- Utilize kinesiology principles to develop appropriate treatment plans for movement dysfunctions.
- o Demonstrate advanced skills in functional assessment and movement analysis.

2. Kinesiotherapy:

- o Understand the principles and applications of Kinesiotherapy in physiotherapy practice.
- o Demonstrate proficiency in instructing and guiding patients in correct exercise techniques.
- Apply appropriate therapeutic exercises to improve strength, flexibility, coordination, and functional mobility.
- Demonstrate knowledge of different therapeutic exercises and techniques used in Kinesiotherapy.
- Expand knowledge of therapeutic exercises and techniques used in Kinesiotherapy.
- Apply evidence-based practices in Kinesiotherapy to promote functional recovery and rehabilitation.

3. Electrotherapy:

- o Develop an in-depth understanding of different electrotherapy modalities and their physiological effects.
- Evaluate and select appropriate electrotherapy modalities based on patient assessment and treatment goals.
- Safely and effectively administer electrotherapy modalities while considering contraindications and precautions.
- o Monitor patients' responses to electrotherapy interventions and adjust parameters as needed.

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o Integrate electrotherapy with other treatment modalities to optimize patient outcomes.

4. Pharmacology:

- Understand the basic principles of pharmacology, including drug classifications, mechanisms of action, and pharmacokinetics.
- o Identify commonly used drugs relevant to physiotherapy practice and their indications, contraindications, and adverse effects.
- Apply pharmacological knowledge to assess and manage pain, inflammation, and other relevant conditions encountered in physiotherapy practice.
- Recognize potential drug interactions and their implications for physiotherapy interventions.
- Demonstrate an understanding of the role of pharmacotherapy in the broader context of patient care and interdisciplinary collaboration.

5. Pathology:

- Develop knowledge of the general principles of pathology, including cellular responses to injury, inflammation, and tissue repair.
- Identify and describe the pathophysiological processes associated with various diseases and conditions.
- Understand the pathological basis of common musculoskeletal, cardiovascular, respiratory, and neurological disorders.
- Apply pathological knowledge to interpret diagnostic tests and imaging reports relevant to physiotherapy practice.
- Relate pathophysiological mechanisms to the selection and adaptation of physiotherapy interventions.

6. Microbiology:

- Understand the fundamental concepts of microbiology, including the classification, morphology, and physiology of microorganisms.
- o Identify common pathogenic microorganisms and their associated diseases.
- o Explain the modes of transmission, prevention, and control of infectious diseases.
- Apply knowledge of microbiology to implement infection control measures in physiotherapy practice.
- Recognize the importance of microbiological considerations in wound care, hygiene, and patient management.

7. Psychology:

- Understand the basic principles and theories of psychology and their application in healthcare settings.
- Recognize and describe psychological factors influencing patient behaviour, motivation, and adherence to treatment.
- Apply communication and interpersonal skills to effectively interact with peer considering their psychological and emotional needs.

 Identify and employ strategies for patient education, counselling, and behaviour modification to facilitate optimal treatment outcomes.

8. Environmental Sciences:

- Develop an understanding of environmental factors that can impact health and wellbeing.
- o Identify and evaluate environmental hazards and their effects on human health.
- o Apply principles of environmental sustainability and occupational health in physiotherapy practice.
- o Recognize and address the impact of environmental factors on rehabilitation, patient safety, and accessibility.
- o Demonstrate awareness of environmental legislation and policies relevant to healthcare settings.

9. Computer Application:

- Develop proficiency in using computer software and applications relevant to physiotherapy practice.
- Utilize computer technology to retrieve, manage, and analyse health-related data and information.
- Demonstrate competence in electronic medical record keeping, documentation, and information security.
- o Apply computer applications for data visualization, research, and evidence-based practice in physiotherapy.
- O Understand and adhere to ethical and legal considerations related to the use of computer technology in healthcare.

10. ETHICS

- O Understand Concepts of morality, Ethics & Legality-rules of professional conduct & their Medico-legal &moral implications-The need of Council Act for Physiotherapy.
- Acquire knowledge of Functioning of the World Confederation of Physical therapy [W.C.P.T.] & its various branches-Special Interest groups.
- O Apply rules of professional conduct, medico legal and moral implications while acquiring knowledge of patient handling.

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