

**COURSE: ADVANCED PHYSICAL AND FUNCTIONAL DIAGNOSIS**

**CODE: 06BMPTR17161**

**CREDITS: 04+02**

**UNIT 1**

Clinical examination in general and detection of movement dysfunction

**UNIT 2**

Principles of pathological investigations and imaging techniques related to neuromuscular, skeletal and cardiopulmonary disorders with interpretation.

**UNIT 3**

Developmental screening, motor learning –motor control assessment.

**UNIT 4**

Anthropometric measurements.

**UNIT 5**

Physical fitness assessment by Range of motion, Muscle strength, endurance and skills, Body composition, Fitness test for sports.

**UNIT 6**

Evaluation Methods, Special tests and Scales used in Musculoskeletal, Neurological and Cardiopulmonary disorders.

**UNIT 7**

Physiotherapy Modalities, Techniques and approaches , Clinical decision making in electrotherapeutics  
EMG and Biofeedback

**UNIT 8**

Evaluation of aging.

**UNIT 9**

Aids and appliances, adaptive functional devices to improve movement dysfunction.

**UNIT 10**

Exercise ECG testing and monitoring.

**UNIT 11**

Pulmonary function tests and Spirometry.

**UNIT 12**

Physical disability evaluation and disability diagnosis.

### **UNIT 13**

Gait analysis and diagnosis.

### **UNIT 14**

Introduction to Screening For Referral In Physiotherapy, Introduction to the interviewing process, Overview of the physiology of pain and systemic causes of pain, Physical assessment as a screening tool , Screening for hematologic disease, Screening for cardiovascular disease, Screening for pulmonary disease , Screening for urogenital disease

### **UNIT 15**

Screening for Cancer , Screening the head, neck, and back, Screening the sacrum, sacroiliac, and pelvis, Screening the lower quadrant: buttock, hip, groin, thigh, and leg, Screening the chest, breasts, and ribs, Screening the shoulder and upper extremity

## **COURSE: PRINCIPLES OF PHYSIOTHERAPY PRACTICE**

**CODE: 06BMPTR17171**

**CREDIT: 03**

### **UNIT 1**

Development of Physiotherapy profession and roles of a physiotherapist  
Future challenges in physiotherapy

### **UNIT 2**

Laws of Physiotherapy practice .  
Application of laws governing Physiotherapy practice

### **UNIT 3**

Ethical issues in practice of Physiotherapy – Clinical, research and academics.  
Application of Ethics in Clinical Research and Academics  
Administration, legislation, rules and regulations governing physiotherapy practice in National & International level .  
Scope of Physiotherapy in Hospital, Community & Industry

### **UNIT 4**

Standards of practice for Physiotherapist and the criteria  
History taking and patient communication.  
Tests in objective assessment.  
Interpretation of findings.  
Treatment planning/execution for intervention in Neurological , Musculoskeletal and Cardiovascular Conditions.

## **UNIT 5**

Documentation of rehabilitation assessment using International Classification of Functioning Disability and Health. Management using International Classification of Functioning Disability and Health

### **COURSE: RESEARCH METHODOLOGY AND BIOSTATISTICS**

**CODE : 06BMPTR17172**

**CREDITS: 03**

## **UNIT 1**

Introduction to research. And Defining a research question , Types of research, Qualitative study designs and Quantitative study , Use of Delphi process

## **UNIT 2**

Type I and type II error, study design, Sampling design, calculating minimum sample size based on design

## **UNIT 3**

Measurement: Properties of measurement: reliability, validity, responsiveness, MCID – minimal clinically important difference, Outcome measures: Use of outcome measures in rehabilitation research, Research Methods: Designing methodology, Reporting results, Communicating research.

## **UNIT 4**

Evaluating published research: looking at the evidence, Introduction to evidence based practice, evaluating evidence with clinical reasoning, Translating of evidence into practice: strategies , Use of clinical practice guidelines, clinical pathways, prediction rules to informed practice.

## **UNIT 5: BIOSTATISTICS**

Epidemiological Measures – Rate, Ratio, Proportion, Incidence and prevalence, Relative risk, Risk ratio, Odds ratio, Descriptive Statistics and measurement variability, Statistical inference

## **UNIT 6**

Comparison of group means: T-test, Analysis of variance, Multiple comparison tests , Introduction to statistical analysis through various statistical software.

## **UNIT 7**

Non parametric tests, Correlations and Regression, Analysis of frequencies: Chi square, Statistical measure of reliability, Power analysis – Determining sample size

**COURSE: PERSONALITY DEVELOPMENT AND LEADERSHIP SKILLS**

**CODE: 06BMPTR17173**

**CREDITS: 02**

**UNIT 1: INTRODUCTION TO PERSONALITY DEVELOPMENT**

Definition of basics of personality; Human growth and behavior; Theories of personality development

**UNIT 2 : TECHNIQUES IN PERSONALITY DEVELOPMENT**

Communication skill – listening; Communication barrier, overcoming these barriers; Inter-personal communication and body language

**UNIT 3: TEAM BUILDING AND PUBLIC SPEAKING**

Etiquette; Goal setting; Time management and effective planning

**UNIT 4: PERFORMANCE APPRASIAL**

Self Introduction

Training- Definition, Techniques- On the job and off the job

Performance appraisal: Definition, need, methods of performance appraisal- objectives, judgmental and performance appraisal for managers.

**UNIT 5: MOTIVATION, INCENTIVES AND LEADERSHIP**

Motivation – Definition, theories, - Maslow’s and Herzberg’s

Incentives – Definition. Type – financial and non financial incentives

Leadership – Definition, Different leadership styles. Leadership theories- situational leadership, Transformational & Transactional theories

**UNIT 6: LEADERSHIP AND CHANGE IN ORGANIZATION**

Leadership in organization; Change process in organization; Leadership role in change process.

**UNIT 7: POWER AND INFLUENCE IN ORGANIZATION**

Concept of power and influence and Legitimization of power; Managing of power; Negotiation and conflict resolution in organization

**UNIT 8: MANAGEMENT OF STRESS**

Concepts of stress, role of Personality in stress – Type A personality ; Primary source of stress – Organizational Sources of Stress, life stressors; Impact of stress – Impact on health, performance, job burnout; Managing stress – Individual practice. Organizational practice; Work place aggression, Work place bullying, sexual harassment, work place violence.