

# JHARKHAND RAI UNIVERSITY



## **Bachelor of Physiotherapy (BPT)**

### FIFTH SEMESTER SYLLABUS

**Raja Ulatu | Namkum | Ranchi | Jharkhand**  
**Web : [www.jru.edu.in](http://www.jru.edu.in) | Email : [info@jru.edu.in](mailto:info@jru.edu.in)**

## DEPARTMENT OF PHYSIOTHERAPY (BPT)

**Duration: Four years Six months**

**Academic Year: 2021 – 2025**

**Syllabus**

<b>COURSE SCHEME</b>											
<b>BATCH 2021-2025</b>											
<b>BACHELOR OF PHYSIOTHERAPY</b>											
<b>CHOICE BASED CREDIT SYSTEM</b>											
<b>SEMESTER V</b>											
S.No	CODE	COURSE TITLE	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Assignment	TA	Total	ESE		
1	23A501	ORTHOPAEDICS	4	0	0	20	10	30	70	100	4
2	23A502	NEUROLOGY/PSYCHIATRY	4	0	0	20	10	30	70	100	4
3	23A503	CARDIOPULMONARY	4	0	0	20	10	30	70	100	4
4	23A504	MEDICINE WITH PAEDIATRICS & GERIATRICS - I	4	0	0	20	10	30	70	100	4
5	23ADE01	DEPARTMENTAL ELECTIVE ( GROUP-A )	2	0	0	20	10	30	70	100	2
6	40BPT.3 03	MANAGERIAL SKILLS	2	0	0	20	10	30	70	100	0
<b>PRACTICAL/SESSIONAL</b>											
1	23A501P	ORTHOPAEDICS - PRACTICAL	0	0	4			30	20	50	2
2	23A503P	CARDIOPULMONARY - PRACTICAL	0	0	4			30	20	50	2
3	23A506P	PT- CLINICALS - I	0	0	16			30	20	50	8
									<b>TOTAL</b>	<b>750</b>	<b>30</b>

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** Orthopaedics

**Course Code:** 23A501

L	T	P	Credits
4	0	0	4

### **COURSE LEARNING OBJECTIVE**

**CLO1:** Learn the essentials concerning performing a history and physical examination.

**CLO2:** Learn the principles of interpreting a plain radiograph (be able to recognize a fracture/dislocation).

**CLO3:** Recognize the historical symptoms of trauma patients.

**CLO4:** Know the evaluation strategy for the patient with traumatic injury.

### **COURSE OUTCOME**

At the end of the course candidate will able to

CO1: Identify different types of fracture and dislocation of upper limb, lower limb, spine and skull.

CO2: Understand different orthopedic procedure like arthrodesis, arthroplasty, osteotomy, bone grafting, tendon transfer etc.

CO3: Describe different orthopedic condition and treatment like tennis elbow, golfer's elbow, Dequervan's disease, carpal tunnel syndrome, arthritis, etc.

CO4: Understand different infection and non-infection condition and management like tumor, poliomyelitis, leprosy, nerve injury, deformities.

**UNIT 1: Introduction to Orthopedics:** Introduction to **Orthopedic terminology**, Types of pathology commonly dealt with, clinical examination, common investigations X- rays & imaging techniques and outline of Non operative management. **Principles of operative treatment:** List indications, Contraindication and briefly outline principles of Arthrodesis, Arthroplasty, Osteotomy, Bone grafting, Tendon- Transfers and Arthroscopy. Sprains and Muscle strains: List common sites of sprains and muscle strains. Describe the clinical manifestations and treatment Viz. tennis elbow, golfer's elbow, Dequervan's disease, tenosynovitis, trigger finger, carpal tunnel syndrome and plantar fasciitis. **Sports Injuries:** Injuries related to common sports their classification and Management.

**UNIT 2: Fractures and dislocations:** General Principles, Outline the following, Types of fractures including patterns, open and close fractures, fracture- dislocations. Differences between dislocation subluxation, General & Local signs & symptoms of fractures & dislocation. Principle of management of fractures & dislocations, Prevention & treatment of complication including: Fracture- disease Volkman's ischeamic contracture, Sudeck's Atrophy, Carpal Tunnel Syndrome. Myositis Ossificans and Shoulder- Hand Syndrome. Fracture healing.

**UNIT 3: Upper Limb Fracture & Dislocations:** Enumerate major long bone fractures and joint injuries. Briefly describe their clinical features, principles of management and complications. Lower Limb Fracture & Dislocations: Enumerate major long bone fractures and joint injuries. Briefly describe their clinical features, principles of management and complications. Spinal Fractures and Dislocations: Outline the mechanism, clinical features, Principles of management and complications of spinal injuries. Recurrent Dislocations: Outline the mechanism, clinical features, principles of management and complications of recurrent dislocation of the shoulder and petalla.

**UNIT 4: Amputations:** Classify amputations: List indication for surgery. Outline pre-operative, operative and prosthetic management. Outline prevention and treatment of complications. **Bone & Joint Infections:** Outline the etiology, clinical features, management and complications of septic arthritis, osteomyelitis. Tuberculosis (including spinal TB). **Bone Joint Tumors:** Classify and outline the clinical feature, management and complications of the following (benign/malignant) bone and joint tumors, Osteomas, osteosarcomas, osteoclastomas, Ewing's sarcoma, multiple myeloma.

**UNIT 5: Chronic Arthritis:** Outline of pathology: Clinical features, mechanism of deformities, management and complications of Rheumatoid arthritis, Osteoarthritis of major joints and spine, Ankylosing spondylitis. Neck & Back Pain, Painful Arc syndrome, Tendonitis, Facitis & Spasmodic Torticollis .Outline the above including clinical features and management. **Spinal Deformities:** Classify spinal deformities and outline the salient clinical features, management and complications of Scoliosis, Kyphosis and Lordosis.

**UNIT 6: Poliomyelitis:** Describe the pathology, microbiology, prevention, management and complications of polio. Outline the treatment of residual paralysis including use of orthoses. Principles of muscle transfer and corrective surgery. **Congenital Deformities:** Outline the clinical features and management of CTEV, CDH, flat foot, vertical talus, limb deficiency radial club hand and femoral, tibial and fibula deficiencies meningomyelocele Arthrogryposis multiplex congenita and Osteogenesis imperfecta. **Peripheral Nerve Injuries:** Outline the clinical features and management, including re-constructive surgery of radial, median and ulnar nerve lesions. Sciatic and lateral popliteal lesions. Brachial Plexus injuries including Erbs, Klumpke's crutch palsy. **Hand injuries:** Outline of clinical features, management and complications of skin and soft tissue injury, tendon injury, bone and joint injury. **Leprosy:** Outline of clinical features, management and complications of neuritis, muscle paralysis, tropic ulceration and hand & feet deformities

**Suggested Readings:**

**Text Books:**

1. Maheshwari, *Essential Orthopaedics*, Jaypee Brothers Medical Publishers
2. Jayant Joshi & Prakash Kotwal, *Essentials Of Orthopaedics & Applied Physiotherapy*, Elsevier, New Delhi.

**Reference Books:**

1. Apley, *Physical examination in Orthopaedics*, Butterworth Heinmann

**Note: Latest editions of all the suggested books are recommended.**

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** Neurology & Psychiatry

**Course Code:** 23A502

L	T	P	Credits
4	0	0	4

### **COURSE LEARNING OBJECTIVE**

**CLO 1:** To develop clinical expertise in the care of patients with cognitive, emotional, and/or behavioral problems related to neurological illness.

**CLO 2:** To gain a broad knowledge in the field through extensive exposure to the core literature.

**CLO 3:** Facilitate a broad based exposure to common neurologic problems with pathophysiology.

**CLO 4:** Formulate a differential diagnosis for patients with neurological symptoms.

### **COURSE OUTCOME**

At the end of the course candidate will able to

CO1: Identify different types of neurological condition and management.

CO2: Understand different neurosurgery procedure like electrical stimulation of brain and spinal cord etc.

CO3: Describe different neurological condition and treatment like stroke, hydrocephalus, Spina Bifida, Epilepsy, motor neuron disease etc

CO4: Understand different infection and non-infection condition and management like tumor, Parkinson's Disease, tuberculosis, poliomyelitis, myasthenia Gravis, nerve injury, head injury etc.

**UNIT 1. Neuroanatomy & neurophysiology:** Review the basic anatomy of the brain and spinal cord including: Blood supply of the brain and spinal cord, anatomy of the visual pathway, connections of the cerebellum and extrapyramidal system, relationship of the spinal nerves to the spinal cord segments, long tracts of the spinal cords, the brachial and lumbar plexus and cranial nerves. Neurophysiology: Review in brief the Neurophysiological basis of tone and disorders of the tone and posture, bladder control, muscle contraction, movement and pain.

**UNIT 2: Neuro-Assessment & Management:** Assessment and evaluative procedures for the neurological patient. Review of the principles of the management of a neurological patient. Management of pain. General assessment procedures and basic principles of management. Pre-Operative assessment and indications and contraindications for Neurosurgery. Electrical Stimulation of brain and spinal cord.

**UNIT 3: Neurological disorders –I:** Briefly outline the etiogenesis, clinical features and management of the following:- Congenital and childhood disorders- Cerebral palsy, Hydrocephalus and Spine Bifida. Cerebrovascular accidents – General, classification, thrombotic, embolic, hemorrhagic & inflammatory, strokes, gross localization and sequelae.

Trauma- localization, first aid and management of sequelae of head injury and spinal cord injury.

**UNIT 4: Neurological disorders –II:** Briefly outline the etogenesis, clinical features and management of the following: Diseases of the spinal cord- Craniovertebral junction anomalies, Syringomyelia, Cervical and lumbar disc lesions. Tumors and spinal Arachnoiditis. Demyelinating diseases (central and peripheral)- Guillain- Barre Syndrome. Acute disseminated encephalomyelitis. Transverse myelitis and Multiple sclerosis.

**UNIT 5: Neurological disorders –III:** Briefly outline the etogenesis, clinical features and management of the following:- Degenerative disorders- Parkinson’s disease and dementia. Infections- Pyogenic Meningitis sequelae, Tuberculosis infection of central nervous system and Poliomyelitis. Diseases of the muscle – Classification, signs, symptoms, progression and management. Peripheral nerve disorders – Peripheral nerve injuries, Equipment neuropathies and Peripheral neuropathies.

**UNIT 6: Neurological disorders –IV:** Epilepsy: Definition, Classification and management. Myasthenia Gravis: Definition, course and management. Intra cranial Tumors – Broad classifications, signs and symptoms. Motor neuron disease – Definition, classification and management. Cranial Nerves - Types of disorders, clinical manifestation & management

### **Suggested Readings:**

#### **Text Books:**

1. Susasn B. *Physical Rehabilitation Assessment and Treatment*, FA Davis.
2. Kenneth.W.Lindsay, *Neurology and Neurosurgery illustrated*, Elsevier.

#### **Reference Books:**

1. Richard.S.Snell, *Clinical Neuroanatomy*, Wolters Kluwer India Pvt.Ltd.

**Note: Latest editions of all the suggested books are recommended.**

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** Cardiopulmonary

**Course Code:** 23A503

L	T	P	Credits
4	0	0	4

### **COURSE LEARNING OBJECTIVE**

**CLO 1:** Explain and classify common cardiovascular conditions, including diagnostic tests and therapeutic approaches.

**CLO 2:** Analyze factors leading to hypertension, as well as approaches useful in preventing and treating the condition.

**CLO 3:** Compare and contrast the various forms of shock and the basis of therapeutic interventions.

### **COURSE OUTCOME**

At the end of the course candidate will able to

CO1: Recall anatomy and physiology of cardiopulmonary system.

CO2: Assess cardiopulmonary system.

CO3: Use different instrument like PEP, Flutter, Acapella, RC Cornet, IPPB, Suctioning .O2 Therapy and Mechanical Ventilation, etc.

CO4: Identify different types of cardiopulmonary condition and its management.

CO5: Understand different cardiothoracic surgery.

CO6: Describe different vascular disease etc.

**UNIT 1:** Review of Cardiopulmonary anatomy and Physiology. Cardiopulmonary Anatomy: General Anatomy of Upper Respiratory tract, Surface Anatomy of Lungs, Anatomy of Heart. Cardiac Arrest and Resuscitation: ABC of Resuscitation –Basic life support, advanced life support and prolonged life support. Ventilation of Lungs and Transport of Gases: Ventilation of Lungs: Partial pressure of Oxygen & CO<sub>2</sub>, Dead space, Nervous control of Bronchial Muscles, Elasticity, Compliance, Surface Tension, Nervous control of Ventilation, Voluntary control of ventilation, Chemoreceptors. Composition of alveolar air, Alveolar Dead space, Diffusion Pathway Haemoglobin, CO<sub>2</sub> carriage in blood, Acid Base reaction.

**UNIT 2:** Assessment of Respiratory and Cardio-Vascular System: Assessment of Respiratory System: Tests for Ventilatory function, PEFR, FEV<sub>1</sub>, and Exercise testing, Clinical application of Lungs Function Test, Percussion and Auscultation. Abnormal Lung sounds. Chest Radiograph-X-Ray. Assessment of Cardio-vascular System: ECG-Leads, Tracing,



Interpretation of Normal and Abnormal ECG, Arrhythmias, Heart Block, Myocardial Infarction, Chamber Hypertrophy.

**UNIT 3: Clinical Management of Cardiorespiratory Conditions: Techniques to clear secretions:** Hydration, Humidification & Nebulization. **Manual Techniques:** ACBT, Autogenic Drainage, **Mechanical Aids** – PEP, Flutter, Acapella, RC Cornet, IPPB, Facilitation of Cough and Huff, Suctioning. O<sub>2</sub> Therapy and Mechanical Ventilation.

**UNIT 4: Intensive care unit:** Assessment of the critically ill patients, Monitoring in the ICU. Common conditions in the ICU – Head Injury, Pulmonary Oedema, Multiple Organ Failure, Neuromuscular Disease, Poisoning, Aspiration, ARDS, Shock etc, Dealing with Emergency situations in ICU, NICU / PICU treatment.

**UNIT 5:** Thoracic conditions and Surgeries: Injury of Chest (Thorax)-Fracture of Rib, Emphysema, Pneumothorax, Hemothorax, Flail chest, Stove in Chest, Diaphragmatic disruption, Pulmonary insufficiency. Disorders of Chest: Pleural effusion, Empyema thoracic, Bronchiectasis, Tuberculosis, Tumours of Lungs. Thoracic and lung surgeries: Thoracotomy- Definition, Types of incisions with emphasis to the site of incision, muscle cut and complications, Pneumectomy, Lobectomy, Segmentectomy, Thoracoplasty, Pleurectomy, Pleurodesis and Decortication of the lungs.

**UNIT 6:** Cardiac and Peripheral Vascular System: Disorders of Heart- Definition, Clinical features, diagnosis and choice of management for the following disorders: Congenital heart disease- Acyanotic congenital heart disease: Patent ductus arteriosus, Coarctation of aorta, Atrial septal defect, Ventricular septal defect. Cyanotic congenital heart disease: Tetralogy of fallot, Transposition of great vessels. Acquired heart disease: Mitral stenosis & Insufficiency, Aortic stenosis and insufficiency, Ischaemic heart disease, Coronary artery disease, Cardiac tamponade, Acute pericarditis and Chronic constructive pericarditis (Pick's Disease). Cardiac Surgeries: Cardio- Pulmonary bypass, Open and closed heart surgery, Transplant Surgery, Mitral Valvotomy. Peripheral Vascular Disease: Arterial Occlusion atherosclerosis), Arteriosclerosis, Thromboangitis Obliterans (Beurger's Disease), Raynaud's Disease Varicose veins and DVT.

### **Suggested Readings:**

#### **Text Books:**

1. S.Das, *A Textbook of Surgery*, Dr. Somen Das, Kolkata.
2. Patricia A.Downie *Cash's Textbook of Chest, Heart and Vascular Disorders For Physiotherapists*, Jaypee Brothers

#### **Reference Books:**

1. Katch & Katch, *Essentials of Exercise Physiology*, Wolters Kluwers.

**Note: Latest editions of all the suggested books are recommended.**

**Program:** Bachelor of Physiotherapy (BPT)  
**Semester:** Fifth  
**Course:** Medicine with Paediatrics & Geriatrics-I  
**Course Code:** 23A504

L	T	P	Credits
4	0	0	4

### COURSE LEARNING OBJECTIVE

- CLO 1:** To impart knowledge and understanding of the various diseases & their symptomatology affecting human body for appropriated treatment and precautions whilst in physiotherapy setup.
- CLO 2:** Describe the signs and symptoms of the common acute pediatric illnesses
- CLO 3:** To understand the content differences in obtaining a medical history on a pediatric patient compared to an adult.
- CLO 4:** To develop an awareness of which clinical settings it is appropriate to obtain a complete medical history compared to a more limited, focused history.
- CLO 5:** Improve health care for elderly people or older adults by preventing and treating disease and disability that often comes with ageing.

### COURSE OUTCOME

At the end of the course candidate will able to

- CO1:** Knowledge of established and evolving biomedical, clinical, epidemiological as well as the application of this knowledge to patient care, through prevention, diagnosis, and treatment of Bacterial and viral diseases.
- CO2:** An awareness of and responsiveness to the larger context and system of healthcare, as Well as the ability to call effectively on other resources in the systems available to provide Optimal healthcare.
- CO3:** Describe the etiology, patho-physiology, signs and symptoms and management in brief about the metabolic and deficiency diseases.
- CO4:** Describe the etiology, patho-physiology, signs and symptoms and management in brief about the respiratory, circulatory and heart diseases.

**UNIT 1:** Introduction of modes of transfer of communicable diseases & general preventive measures. **Bacterial Diseases:** Tuberculosis, Leprosy, Rheumatic fever, Tetanus, Typhoid Fever, Diphtheria, Pneumonia, Bacillary Dysentery and Measles.

**UNIT 2: Viral Diseases:** Simplex and zoster, Varicella, Measles Mumps, Hepatitis B & C, AIDS & Influenza. **Metabolic and Deficiency Diseases:** Diabetes, Anemia, Vitamin & Nutritional, Deficiency diseases, diseases of the endocrine glands.

**UNIT 3: Diseases of Respiratory System:** Asthma, Bronchitis, Massive collapse of lungs, Bronchiectasis Bronchial, Pneumonia, lung abscess, Emphysema, Empyema, Paralysis of

diaphragm & vocal cords, chronic infection of larynx and trachea, Abnormalities of trachea, infract of lungs, chronic passive congestion, chronic obstruction pulmonary disease, chest wall deformities.

**UNIT 4: Diseases of Circulatory System:** Thromobsis, Embolism, Gangrene, Valvular diseases Hemorrhage, Heart Malformation, various diseases of arteries, diseases of blood forming organs, Anemia, Leukemia, Leucocytosis, Peripheral vascular diseases, diseases of the lymphatic systems.

**UNIT 5: Diseases of the heart-** Hypertension, Hypotension, Aortic aneurysm, Endocarditis, Pericarditis, Aortic Regurgitation, Cardiac Failure, coronary heart diseases, congenital heart malformation and its manifestation.

**UNIT 6: Diseases of Digestive System :** Pharyngitis, spasm of the Oesophagus, Diverticulum stenosis, Gastric ulcer, Hematemesis Pyloric stenosis, Dyspepsia, Vomiting, Diarrhoea, Duodenal ulcer etc. Diseases of Liver: Jaundice Cirrhosis of liver, Abscess of liver, Ascitis. Diseases of kidney: Polyuria, Hematuria, Uremia, Anuria, Nephritis, Urinary infections, Urinary calculi.

### **Suggested Readings:**

#### **Text Books:**

1. Davidson, *Principles and Practices of Medicine*, Edward – Churchill Livingston
2. Krishna Rao, *A short Textbook of Medicine*, Jaypee Brothers.

#### **Reference Books:**

1. Hutchinson's *Clinical Methods*, Swash- Bailliere Tindall.
2. Ahuja Niraj, *A short textbook of Psychiatry*, Jaypee Brothers.
3. Behrman & Vaughan, *Nelson's Textbook of Paediatrics*, W.B. Saunders
4. Parthasarthy, *Textbook of Paediatrics*, Jaypee

**Note: Latest editions of all the suggested books are recommended.**

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** Managerial Skills

**Course Code:** 40BPT.303

L	T	P	Credits
2	0	0	0

### **COURSE LEARNING OBJECTIVE**

The aim is to develop students' soft skills, communication, leadership and teamwork skills; and personal development skills using practical approach and exposure of students to the realities of the world.

**CLO1:** To enhance Leadership – assessing the requirements of a task, identifying the strengths/weaknesses within the team, utilizing the diverse skills of the group to achieve the set objectives.

**CLO2:** To improve Communication – demonstrating clear briefing and listening /speaking skills.

**CLO3:** To make them realize that effective communication and interpersonal skills are crucial to increase employment opportunities and to compete successfully in the business environment.

**CLO4:** The course aims to cause a basic awareness about the significance of soft skills in professional and inter-personal communications and facilitate an all-round development of personality. Hard or technical skills help securing a basic position in one's life and career .But only soft skills can ensure a person retain it, climb.

### **Course Outcome:**

CO1: Understand the importance of self - management.

CO2: Develop the ability of strategic thinking.

CO3: Understand the importance of employability skills.

### **Module I: Personal Development**

Managing Self - Self Discovery, Self -Awareness, Self Esteem, Self -Responsibility, Self -Management Personal Development Skills, Categories of Personal Development, Personal Development Process

Relationship Management - Managing Others, Interpersonal Skills, Improving Relationship, Transactional Analysis, JOHARI Window, four Life Positions

### **Module II: Thinking Process**

Strategic Thinking – Introduction, Concept, Stages in Strategic Thinking, Process of Strategic Thinking, Importance of Strategic Thinking, Characteristics of Strategic Thinkers, Developing Strategic Thinking

Lateral Thinking – Introduction, Meaning, Need for Lateral Thinking, Techniques of Lateral Thinking, Benefits of Lateral Thinking

Creative Thinking – Out of Box Thinking, Application of Thinking

Facing Changes – Adapting Change, Understanding Change- Examples of Organizational Change Facing Challenges – Introduction, Taking Initiative, Benefits of facing challenges, facing challenges in life

Balancing Work and Life – Importance, Gender differences regarding work life balance, Tips for balancing work and life.

### **Module III: Individual Behavior**

Attitude – Components of Attitude, Factors influencing Attitude, Types of Attitude, Challenges and lessons from Attitude, Impact of Attitude on Behavior

Motivation – Concept, Objective, Factors of Motivation, Self Esteem, Intrinsic & Extrinsic Motivation

Time Management – Value of Time, Diagnosing Time management, Weekly Planner, To Do List, Prioritizing Work

Stress Management – Introduction, Difference between Stress, Anxiety and

Tension, Managing Stress

Applied Ethics – Introducing Professional Ethics, Ethical Dilemma

### **Module IV: Employment Communication**

Job Communication – Developing Job Communication Skills, Job Communication Process, Developing Confidence

Job Search Strategy – Understanding the Job Market, the Job Search Process, Job Search Techniques

Job Application, Employment Letters

Resume Building – Difference between Bio data, Curriculum Vitae and Resume

The Job Interview - Types of Job Interview, Preparing for a Job Interview, Understanding Interview Questions, Handling Interview Questions, Interview Strategies.

Psychometric Test

### **Suggested Readings:**

1. Covey S (2004) the 7 Habits of Highly Effective People.
2. Goud, N. & Arkoff, A. (2003) Psychology and Personal Growth, Allyn & Bacon.
3. Sen, Leena, Communication Skills, Eastern Economy Edition
4. Dr. K.Alex Managerial Skills, S.Chand

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** Orthopaedics - Practical

**Course Code:** 23A501P

L	T	P	Credits
0	0	4	2

### **COURSE LEARNING OBJECTIVE**

**CLO 1:** This subject will help in gaining the skill of Orthopaedics and clinical examination and interpretation of the preoperative old cases and all the Post-Operative cases.

**CLO 2:** Learn the principles of interpreting a plain radiograph (be able to recognize a fracture/dislocation)

**CLO 3:** Learn to take decision, making ability and treat different musculoskeletal conditions.

### **COURSE OUTCOME**

At the end of the course candidate will able to

CO1: Understand relevant investigations technique which will help to diagnosed various orthopedic conditions.

CO2: Integrate theoretical knowledge with clinical assessment.

CO3: Take decision, making ability and treat different musculoskeletal conditions.  
Clinical assessment & evolution of patients with orthopedic condition mentioned in theory syllabus.

1. Assessment PT assessment for Orthopedic conditions
2. Prescription of home program. Documentation of case records, and follows up.
3. Clinical diagnosis of the presentations
4. Investigations and tests of different clinical presentations
5. Physiotherapy management of the various disorders & surgeries
6. Practical demonstration of basic principles of physiotherapy assessment, functional assessment and application of physiotherapy in orthopaedics conditions.

**Note: Student must maintain a logbook. The duly completed logbook should be Submitted during practical examination.**

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** Cardiopulmonary - Practical

**Course Code:** 23A503P

L	T	P	Credits
0	0	4	2

### **COURSE LEARNING OBJECTIVE**

**CLO 1:** This subject will help to execute effective Physiotherapeutic measure with appropriate clinical reasoning in cardiopulmonary patients.

**CLO 2:** This subject will help in gaining the skill of cardiopulmonary and clinical examination and interpretation of the preoperative old cases and all the Post-Operative cases.

**CLO 3:** To improve the healthcare for the patients with cardio-respiratory illness.

### **COURSE OUTCOME**

At the end of the course candidate will able to

CO1: Assess cardiopulmonary system

CO2: Demonstrate Cardiopulmonary resuscitation

CO3: Interpret ECG, Chest X-rays, ABG, R.P.E.- Borg's Scale, IHD, Blocks

1. Assessment of cardiopulmonary system.
2. Demonstration of Cardiopulmonary resuscitation.
3. Demonstration of ECG machine and interpretation of Electrocardiograph.
4. Demonstration of Incentive Spirometry.
5. Interpretation of IHD and Blocks.
6. Interpretation of Chest X-rays (normal and abnormal )
7. Interpretation of A.B.G, R.P.E-Borg's scale.

**Note: Student must maintain a logbook. The duly completed logbook should be Submitted during practical examination.**

**Program:** Bachelor of Physiotherapy (BPT)

**Semester:** Fifth

**Course:** PT- Clinicals – I - Practical

**Course Code:** 23A506P

L	T	P	Credits
0	0	16	8

### **COURSE LEARNING OBJECTIVE**

**CLO 1:** The student will learn approach to the patient, collection of demographic data, art of history taking and bed side/OPD manners in relation to patients.

**CLO 2:** The student will learn proper diagnosis of each conditions of patient.

**CLO 3:** The student will learn physiotherapeutic management of different cases in OPD.

1. The students will be posted in different departments in various setups. According to their planned curriculum.
2. Every student will be asked to maintain a separate logbook consisting of minimum thirty case histories.
3. Exam shall be conducted and student will be assessed according to:-
  - Bedside case presentations and case discussions
  - .Lab sessions consisting of evaluation and assessment methods on student models, treatment techniques and practice sessions.

**Note: Student must maintain a logbook. The duly completed logbook should be submitted during practical examination.**