

**COURSE OUTCOME**

**KLE Institute of Physiotherapy, Belagavi**

**First Year BPT**

At the completion of the course students will be able to:

**Human Anatomy:**

1.1.1	Develop an understanding of the normal anatomical structures of the human body with respect to structure, location & function
1.1.2	Develop an understanding of the common terminology used for describing human structures & movements
1.1.3	Understand the structure and function of various systems of the body with emphasis on musculoskeletal, CNS, cardiac and respiratory systems
1.1.4	Develop an understanding of the applied aspects of human anatomy

**Human Physiology:**

1.2.1	Develop an understanding of the normal physiological functions of various systems of body
1.2.2	Develop an understanding of functioning/responses of various systems such as cardiac, respiratory, musculoskeletal and CNS in response to exercises
1.2.3	Demonstrate common laboratory skills relating to assessment of normal functioning of the body systems
1.2.4	Develop an understanding of the applied physiology of various systems of the body
1.2.5	Develop an understanding of the clinical applications of various physiological functions in relation to Physiotherapy

**Human Biochemistry:**

1.3.1	Develop an understanding of the normal bio-chemical basis of various systems of the human body
1.3.2	Develop an understanding of the applied aspect of bio-chemical processes of various systems of the human body
1.3.3	Develop an understanding of the importance of common clinical biochemistry tests of various systems of the human body

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**Human Biomechanics:**

1.4.1	Understand the basic principles of biomechanics as applied to human body
1.4.2	Understand the principles & application of kinetics & kinematics to human joint movements
1.4.3	Develop an understanding of the mechanics of normal body movements with emphasis on posture, gait & activities of daily living including hand functions
1.4.4	Develop an understanding of the abnormal mechanics/ applied aspect of biomechanical principles to human movement
1.4.5	Develop an understanding of the principles, working & application of various tools & equipment used in the exercise therapeutic management of patients
1.4.6	Demonstrate basic skills of posture analysis & movement evaluation as related to Physiotherapy

**Psychology and Sociology:**

1.5.1	Develop an understanding of various components of psychology & their application to human learning & behavior
1.5.2	Develop an understanding of the various psychological processes & their evaluation
1.5.3	Develop an understanding of the basic psychological factors influencing an individual in health & sickness/illness
1.5.4	Understand the basic concepts & principles of sociology & their relation to individual, family and community
1.5.5	Understand the various social factors affecting the individual, family and community (rural and urban) in India.
1.5.6	Understand the role of social factors affecting health & illness

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### Second Year BPT

At the completion of the course students will be able to:

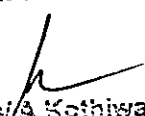
#### Exercise therapy:

2.1.1	Understand the basics of exercise, exercise prescription and its therapeutic methods
2.1.2	Understand the basic principles of various assessment and treatment techniques related to exercise therapy
2.1.3	Understand the indications, contraindications and precautions to be taken during therapeutic movements and exercises
2.1.4	Understand the application of advanced therapeutic methods
2.1.5	Demonstrate an understanding of the applicability of therapeutic skills in the management of various conditions
2.1.6	Demonstrate practical skills of various exercises and treatment techniques used commonly

#### Electrotherapy and Physical Agents:

2.2.1	Understand the basic concept and principles of medical electronics and its relevance to the human body
2.2.2	Understand the theoretical framework of electro-diagnosis and its applicability
2.2.3	Understand the various principles & laws governing the functioning of electrotherapeutic modalities and physical agents & their effect on various body systems
2.2.4	Understand the indications, contraindications and precautions to be taken during application of electrotherapeutic modalities and physical agents in the treatment of various conditions
2.2.5	Demonstrate the methodology of application of electro-therapeutic modalities and physical agents
2.2.6	Demonstrate an understanding of the applicability of electrotherapeutic modalities and physical agents in the evaluation & management of various clinical conditions

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**Pharmacology:**

2.3.1	Understand the various drug classifications and sources of drugs with emphasis on musculoskeletal, CNS and CVS
2.3.2	Understand the usage, dosage, mechanism of action, adverse effects and drug interactions of common pharmacological agents on various systems with emphasis on musculoskeletal, CNS & CVS
2.3.3	Understand the role of pharmacology in Physiotherapy management of common conditions

**Pathology and Microbiology**

2.4.1	Understand the basic theoretical aspects of pathology & microbiology as applied to the human body.
2.4.2	Understand the various disease causing agents and their manifestations in the human body
2.4.3	Understand the modes of infection of various pathogens.
2.4.4	Understand the pathophysiology of common diseases on various body systems with emphasis on musculoskeletal, CNS and CVS system
2.4.5	Demonstrate an understanding of the common methods of sample collection, cultures and sensitivity tests for identification of microbiological agents
2.4.6	Demonstrate an understanding of various methods for prevention of transmission and contamination by infective agents

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## Microbiology:

2.4.1	Understand the basic theoretical aspects of microbiology as applied to the human body.
2.4.2	Understand the various disease causing agents and their manifestations in the human body
2.4.3	Understand the modes of infection of various pathogens.
2.4.4	Understand the pathophysiology of common diseases on various body systems with emphasis on musculoskeletal, CNS and CVS system
2.4.5	Demonstrate an understanding of the common methods of sample collection, cultures and sensitivity tests for identification of microbiological agents
2.4.6	Demonstrate an understanding of various methods for prevention of transmission and contamination by infective agents

## Prosthetics and Orthotics (Theory):

2.5.1	Understand the historical aspects, materials and instrumentation of common prostheses and orthoses
2.5.2	Understand the classification and basic principles of working of common prosthetic and orthotic devices
2.5.3	Understand the role of a Physiotherapist in the process of prescribing and designing of prosthesis, orthosis & assistive devices
2.5.4	Understand the uses, assessment and prescription of common prosthesis, orthotics and assistive devices.
2.5.5	Demonstrate various methods of training a patient with prosthesis, orthosis or assistive devices to achieve functional independence
2.5.6	Demonstrate an understanding of the importance of counselling in patients using prosthetic or orthotic devices &/or assistive devices

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## Third Year BPT

At the completion of the course students will be able to:


### General Medicine:

3.1.1	Understand the pathophysiology & clinical aspects of common medical conditions relating to all systems of the body encountered Physiotherapists during day to day practice
3.1.2	Understand the importance & need for common investigations in diagnosing medical conditions
3.1.3	Develop an understanding of the interpretation of various investigations & integrate the results of common clinical investigations in the overall management of patients with medical conditions
3.1.4	Demonstrate common clinical examination skills relating to common medical conditions
3.1.5	Understand the role/importance of Physiotherapy in the management of commonly referred medical conditions

### General Surgery:

3.2.1	Understand the pathophysiology & clinical aspects of common surgical conditions relating to all systems of the body encountered Physiotherapists during day to day practice
3.2.2	Understand the importance & need for common investigations in medical conditions
3.2.3	Develop an understanding of the interpretation of various investigations & integrate the results of common clinical investigations in the overall management of patients with surgical conditions
3.2.4	Demonstrate common clinical examination skills relating to common surgical conditions
3.2.5	Understand the role/importance of Physiotherapy in the management of commonly referred surgical conditions

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## PT Medicine and Surgery including OBG:

3.3.1	Understand the pathophysiology & clinical aspects of common medical & surgical conditions relating to all systems of the body seen in clinical practice
3.3.2	Understand the importance & need for common investigations in diagnosing medical & surgical conditions
3.3.3	Develop an understanding of the interpretation of various investigations & integrate the results in the overall management of patients with medical & surgical conditions
3.3.4	Demonstrate common Physiotherapy examination skills relating to medical & surgical conditions
3.3.5	Understand the role/importance of Physiotherapy in the management of commonly referred medical & surgical conditions including their rehabilitation
3.3.6	Understand the Pathophysiology & clinical aspects of common OBG conditions seen in clinical practice
3.3.7	Understand the importance & need for common investigations in diagnosing OBG conditions
3.3.8	Develop an understanding of the interpretation of various investigations & integrate the results in the overall management of patients with OBG conditions
3.3.9	Demonstrate common Physiotherapy examination skills relating to OBG conditions
3.3.0	Understand the role/importance of Physiotherapy in the management of commonly referred OBG conditions including their rehabilitation

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**PT in CVTS:**

3.4.1	Understand the basics of exercise, exercise prescription and its therapeutic methods in Cardiovascular and respiratory
3.4.2	Understand the basic principles of various assessment and treatment techniques related to Cardiovascular and respiratory Physiotherapy
3.4.3	Understand the indications, contraindications and precautions to be taken during cardio-respiratory Physiotherapy
3.4.4	Understand the application of advanced therapeutic methods in Cardiovascular and respiratory Physiotherapy
3.4.5	Demonstrate an understanding of the applicability of therapeutic skills in the management of various conditions
3.4.6	Demonstrate practical skills of various exercises and treatment techniques used commonly in cardio-respiratory Physiotherapy

**Research methodology and Ethics, Evidence Based Physiotherapy:**

3.5.1	Understand the basic concepts of research methodology & basic biostatistics
3.5.2	Understand the application of research methodology principles to Physiotherapy research
3.5.3	Understand the historical aspects & basic concepts of Human & research ethics
3.5.4	Understand the importance & application of ethical principles in Physiotherapy research & during day-to-day practice
3.5.5	Understand the basic concepts of evidence based practice & its role/importance in Physiotherapy research & day-to-day practice

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**Community Medicine:**

3.6.1	Develop an understanding of the concepts of health & disease & the factors influencing it at community level
3.6.2	Develop an understanding of the concepts of healthcare delivery systems & their levels & health education at community level
3.6.3	Develop an understanding of the role of prevention of disease in the community & its levels
3.6.4	Develop a basic understanding of the role of Physiotherapists/medical personnel in disaster management, hospital waste management & public-private partnership
3.6.5	Understand the role of Physiotherapist in the promotion of health in the community
3.6.6	Develop a basic understanding of the common health conditions in the community which require rehabilitation & the role of Physiotherapist in providing the same

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### Final Year BPT

At the completion of the course students will be able to:


#### Clinical Orthopedics:

4.1.1	Understand the pathophysiology & clinical aspects of common musculoskeletal conditions in clinical practice
4.1.2	Understand the importance & need for common investigations in musculoskeletal conditions
4.1.3	Develop an understanding of the interpretation of various investigations & integrate the results in the overall management of patients with musculoskeletal disorders
4.1.4	Demonstrate common clinical examination skills relating to musculoskeletal conditions
4.1.5	Understand the role/importance of Physiotherapy in the management of various musculoskeletal conditions

#### Neurology & Neurosurgery:

4.2.1	Understand the Pathophysiology & clinical aspects of common neurological & neurosurgical conditions in clinical practice
4.2.2	Understand the importance & need for common investigations in neurological conditions
4.2.3	Develop an understanding of the interpretation of various investigations & integrate the results in the overall management of patients with neurological & neurosurgical conditions
4.2.4	Understand & demonstrate common clinical examination skills relating to neurological conditions
4.2.5	Understand the role/importance of Physiotherapy in the management of various neurological & neurosurgical conditions

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**Community Physiotherapy:**

4.3.1	Develop an understanding of the concepts of health, healthcare delivery systems & levels & health education at community level
4.3.2	Understand the principles of rehabilitation as applicable to common conditions encountered by Physiotherapists & their application at community level
4.3.3	Describe & demonstrate evaluation of disability at different levels in the community & its importance
4.3.4	Understand the legal & ethical provisions for persons with disability & to disseminate the same in the community
4.3.5	Demonstrate an understanding of the government health related policies as applicable to the community
4.3.6	Understand the role of Physiotherapist in a multidisciplinary rehabilitation team in the management of common conditions in the community
4.3.7	Understand the importance of Physiotherapist in counseling & in achieving functional independence in patients & rehabilitating them back into community
4.3.8	Demonstrate the applicability of exercise & electrotherapeutic skills in the management of various conditions in the community with emphasis on musculoskeletal, neuromuscular, respiratory and cardiovascular system
4.3.9	Demonstrate conduct of health related programs in the community

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## PT in Orthopedics:

4.4.1	Understand the Pathophysiology & clinical aspects of various orthopedic/ musculoskeletal/sports conditions seen in clinical practice
4.4.2	Describe the role of Physiotherapy in the management of various orthopedic/ musculoskeletal/sports conditions
4.4.3	Demonstrate clinical examination skills relating to orthopedic/ musculoskeletal/sports conditions seen in clinical practice
4.4.4	Describe the principles of rehabilitation as applied to various orthopedic / musculoskeletal/sports conditions
4.4.5	Understand & integrate the results of common investigations in the overall management of patients with orthopedic/ musculoskeletal/sports disorders

## PT in Neurology & Neurosurgery:

4.6.1	Understand the pathophysiology and clinical aspects of various neurological and neurosurgical conditions seen in clinical practice
4.6.2	Understand and demonstrate the common assessment and clinical examination skills related to neurological and neurosurgical conditions
4.6.3	Understand and integrate the results of common clinical investigations in the management of various neurological and neurosurgical conditions
4.6.4	Describe the principles of rehabilitation as applied to various neurological and neurosurgical conditions
4.6.5	Understand the role of physiotherapist and demonstrate the management of neurological and neurosurgical conditions in clinical practice

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**PT in Pediatrics:**

4.6.1	Understand the pathophysiology & clinical aspects of common pediatric conditions encountered by Physiotherapists during day to day practice
4.6.2	Describe the role of Physiotherapist in the management of common pediatric conditions
4.6.3	Demonstrate common clinical examination skills relating to pediatric conditions encountered in day to day practice
4.6.4	Describe the principles of rehabilitation as applied to common pediatric conditions
4.6.5	Integrate the results of common clinical investigations in the overall management of pediatric patients with various disorders

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## **KLE INSTITUTE OF PHYSIOTHERAPY, BELAGAVI**

### **Program Outcomes**

#### **1. Physiotherapy knowledge:**

Possess an understanding & knowledge of the scientific basis of Physiotherapy, principles of biological functions & analysis of scientific data & facts. Demonstrate an adequate understanding of the effects of disease on normal bodily functions & to apply this in the evaluation, management & rehabilitation of patients

#### **2. Planning abilities:**

Demonstrate effective patient evaluation & treatment planning skills including time management & follow-up program

#### **3. Communication Skills:**

Demonstrate effective communication skills with patients, caregivers, other scientific/ medical personnel & community at large with regard to health promotion, education & rehabilitation

#### **4. Professional Identity & Ethics:**

Understand, analyze & communicate their professional role in the society (health promoters, rehabilitation specialists, health educators, employers, employee, managers).

Demonstrate an understanding of human values & humanitarian approach in patient care. Apply ethical principles during day to day professional practice

& take ownership of results/outcome of treatment

#### **5. Problem analysis:**

Utilize the principles of scientific enquiry, analytical thinking, clearly and critically, while solving problems and making decisions relating to patient care during daily practice. Find, analyze, evaluate and apply information systematically and make defensible decisions.

#### **6. Physiotherapist & Society:**

Apply informed contextual reasoning supported by evidence to assess societal, health, safety and legal issues and the consequent responsibilities relevant to professional Physiotherapy practice

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**7. Leadership skills:**

Develop the ability to independently evaluate & plan patient care programs. Develop the ability to work as a team in the holistic management of patients. Demonstrate an ability to lead & mentor a peer team or juniors in the best interest of the patient, profession & society at large.

**8. Research Acumen:**

Develop a keen sense of research in the field of Physiotherapy. Develop a sense of scientific inquiry in the evaluation & management of patients & aim to cover the lacuna in the knowledge pool by conducting good quality research & presenting the same at scientific forums & publish quality papers in order to aid evidence based practice.

**9. Lifelong learning:**

Recognize the need for & engage in independent and life-long learning in the broadest context. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

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