Masters of Physiotherapy

(Sports Disorders)

Rev.- 1

Rules-Regulations & Curriculum (as per OBE)

(w.e.f. 2025-26)

REGISTRAR
Sai Tirupati University
Udaipur (Raj.)

Venkteshwar College of Physiotherapy
Principal
Udaipur

VENKTESHWAR COLLEGE OF PHYSIOTHERAPY

(A Constituent Unit of Sai Tirupati University)

Program Outcomes (POs)

PO1 Apply advanced clinical reasoning and therapeutic skills for problem-solving.
PO2 Collect, analyse and interpret health-related information within a holistic context.
PO3 Plan, execute, and evaluate physiotherapy interventions.
PO4 Integrate scientific principles with healthcare concepts involving wellness, illness, and disability.
PO5 Promote health and preventive care.

Program Educational Objectives (PEOs)

PEO1 To provide advanced theoretical knowledge and clinical expertise in physiotherapy practice.
PEO2 To develop graduates with strong clinical decision-making and problem-solving skills.
PEO3 To encourage engagement in research and evidence-based practice for improving patient outcomes.
PEO4 To prepare professionals for leadership roles in healthcare, academics, and community services.
PEO5 To promote lifelong learning, ethical values, and social responsibility in professional practice.

Program Specific Outcome (PSOs)

PSO1 To apply advanced physiotherapy techniques in specialized areas such as neurology, orthopaedics, cardiopulmonary, and sports rehabilitation.
PSO2 To design, implement, and evaluate effective physiotherapy treatment plans for diverse patient populations.
PSO3 To integrate clinical research findings into practice for enhancing patient care and rehabilitation outcomes.
PSO4 To utilize modern physiotherapy technologies, diagnostic tools, and therapeutic equipment effectively.
PSO5 To demonstrate professional communication, teamwork, and leadership skills in multidisciplinary healthcare settings.

Rules-Regulations & Scheme of Examination

Program Name:

Master of Physiotherapy (MPT) (Sports Disorders)

Admission Criteria:

A Bachelor of Physiotherapy (BPT) degree from a recognized university or institution with Minimum 50% aggregate marks in the degree, relaxation for reserved candidate as per the govt norms.

Duration of Program:

The Minimum duration of the program is two years, and a maximum is four years after that student has to re-register for the program.

Attendance Requirements:

A minimum of 75% attendance in both theory and practical/clinical practice (separately for each course) is mandatory. Non-compliance will make a candidate ineligible for the respective university examination.

Scheme of Examination:

1. There will be one external examination for Part I & Part II separately in one academic year.
2. A candidate who passed in a single paper (Theory or Practical) will be eligible for the promotion to MPT Part II.
3. Candidate securing 75% marks in a course in first attempt will be awarded any Distinction (D) in that course.
4. There are 5 marks for the grace. Grace marks will be applied to total marks obtained in the course and it can be applied to one course only in that exam
5. Revaluation/re-total of paper as per university norms.
6. A candidate failing in any number of courses at the main examination shall be allowed to appear in the failing courses at the ensuing supplementary examination.
7. A candidate who failed in supplementary examination has to appear in back examination scheduled with main examination.

Paper Pattern:

Section-I: It will contain 3 questions and answer any two questions.
Section-II: It will contain 10 questions and answer any six questions.

Program Scheme

L- Lecture, **T**-Tutorial, **P-**Practical, **C-** Credits
DCC- Discipline Core Course
SEC- Skill Enhancement Course
AEC- Ability Enhancement Course
VAC- Value Added Course
CL – Clinical Practice

Part I

S. No	Course Code	Course Name	Type	L	T	P	C	Theory	Practical	Total
1	303PP101	Principle of Physiotherapy Practice	SEC	2	0	0	2	100	-	100
2	303RB102	Research Methodology & Biostatistics		2	0	0	2			
3	303BM103	Biomechanics	DCC	2	0	0	2	100	-	100
4	303EX104	Exercise Physiology		2	0	0	2			
5	303EP105	Electro Physiology		2	0	0	2			
6	303PF106	Physical and Functional Diagnosis	SEC	2	0	0	2	100	-	100
7	303PP107	Principle of Physiotherapy Practice-CL	SEC	0	0	1	1	-	100	100
8	303PF108	Physical and Functional Diagnosis-CL	SEC	0	0	1	1	-	100	100
Grand Total										**500**

Part II

S. No	Course Code	Course Name	Type	L	T	P	C	Theory	Practical	Total
1	303PT201	Physiotherapeutic	SEC	2	0	0	2	100	-	100
2	303SD202	Sports Disorders	SEC	3	0	0	3	100	-	100
3	303PT203	Physiotherapeutic-CL	SEC	0	0	1	1	-	100	100
4	303SD204	Sports Disorders-CL	SEC	0	0	2	2	-	100	100
5	303DS205	Dissertation	SEC	0	0	0	5	-	100	100
Grand Total										**500**

Detailed Syllabus

Part I

Course Name: Principles of Physiotherapy Practice	**L**	**T**	**P**	**C**
Course Code: 303PP101	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives

- To provide foundational knowledge of physiotherapy principles, modalities, and evidence-based practice.
- To develop understanding of musculoskeletal, neurological, and cardiopulmonary systems relevant to physiotherapy interventions.
- To enhance students' ability to assess, plan, and implement appropriate physiotherapy treatment strategies.
- To cultivate professional, ethical, and patient-centred approaches in clinical physiotherapy practice

Course Outcomes

CO1 Students will be able to explain core concepts, principles, and therapeutic modalities used in physiotherapy practice.
CO2 Students will demonstrate competency in basic patient assessment and clinical reasoning.
CO3 Students will effectively apply physiotherapy techniques to improve functional outcomes in varied patient conditions.
C04 Students will exhibit ethical behaviour, effective communication, and patient-centred care in clinical settings.

THEORY

1. Development of Physiotherapy Profession
2. Ethical issues in practice of Physiotherapy-Clinical, Research and Academics, Administration, legislation, rules and regulations governing physiotherapy practice-National & International (WCPT and IAP). Scope of Physiotherapy in Hospital, Community & Industry.
3. History taking, assessment, tests, Patient communication, documentation of findings, treatment organization and planning/execution for intervention.
4. Documentation of rehabilitation assessment and management using International Classification of Functioning Disability and Health (ICF)
5. Standardized tests and scales used in various types of cases for assessment and interpretation in Physiotherapy practice.

Course Name: Research Methodology and Biostatistics	**L**	**T**	**P**	**C**
Course Code: 303RB102	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives

- To introduce fundamental concepts of research design, scientific inquiry, and evidence-based practice.
- To develop skills for formulating research questions, hypotheses, and selecting appropriate study designs.
- To provide knowledge of biostatistical methods for data collection, analysis, interpretation, and presentation.
- To enable students to conduct ethical research and critically evaluate scientific literature.

Course Outcomes

CO1 Students will be able to explain key principles of research methodology, study designs, and ethical considerations.

CO2 Students will formulate research problems, develop hypotheses, and design appropriate research protocols.

CO3 Students will apply biostatistical tools for data analysis and interpret results accurately.

CO4 Students will critically appraise research articles and utilize evidence-based findings in professional practice.

THEORY

1. Introduction to biostatistics and research methodology.
2. Basic probability and sampling distributions.
3. Processing and analysis of data.
4. Tests of Analysis of variance & co-variance.
5. Significance based on parametric and non-parametric tests
6. Research process and criteria of good research
7. Sampling and Sample size determination.
8. Various epidemiological study designs.
9. Validity and reliability evaluation.
10. Format of scientific documents. (Structure of protocols, formats reporting in scientific journals, systematic reviews and Meta-analysis)

Course Name: Biomechanics	**L**	**T**	**P**	**C**
Course Code: 303BM103	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives

- To provide foundational knowledge of mechanical principles governing human movement and posture.
- To develop understanding of the structure–function relationship of bones, joints, and soft tissues.
- To enable students to analyse normal and pathological movement using biomechanical concepts.
- To equip students with skills to apply biomechanical principles in assessment, treatment planning, and injury prevention.

Course Outcomes

CO1 Students will be able to explain biomechanical principles related to body movement, forces, and mechanical properties of tissues.
CO2 Students will analyse human motion and identify deviations using biomechanical assessment techniques.
C03 Students will apply biomechanical knowledge to evaluate functional performance and movement efficiency.
C04 Students will integrate biomechanical principles into physiotherapy interventions for rehabilitation and injury prevention.

THEORY

1. Biomechanics of Tissues and structures of the musculoskeletal system.
2 Normal and applied Biomechanics of Spine, Upper extremity and Lower extremity.
3. Biomechanics of posture.
4. Biomechanics of respiration, circulation, hand function and gait.
5. Methods of kinetics and kinematics investigation
6. Patient Positioning, Body Mechanics and Transfer Techniques
7. Ergonomic Approach to lifting and handling, workspace and Environment

Course Name: Exercise Physiology	**L**	**T**	**P**	**C**
Course Code: 303EX104	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives

- To provide foundational knowledge of physiological responses and adaptations to exercise.
- To develop understanding of the functioning of cardiovascular, respiratory, neuromuscular, and metabolic systems during physical activity.
- To enable students to assess fitness components and interpret physiological measurements.
- To apply exercise physiology principles in designing safe and effective exercise programs for health, performance, and rehabilitation.

Course Outcomes

CO1 Students will explain acute and chronic physiological responses to exercise across major body systems.

CO2 Students will evaluate fitness parameters and interpret physiological data such as heart rate, VO_2, and energy expenditure.

CO3 Students will apply scientific principles to develop individualized exercise programs for various populations.

CO4 Students will integrate exercise physiology knowledge into clinical and rehabilitation settings to enhance functional outcomes.

THEORY

1. Sources of Energy, Energy Transfer and Energy Expenditure at rest and various physical activities.

2. Physiology of Movement

3. Responses and Adaptations of various systems to Exercise and training.

4. Environmental influence on Performance,

5. Special aids to performance and conditioning.

6. Body consumption, nutrition and caloric balance.

7. Considerations of age and sex in exercise and training.

8, Fatigue assessment and scientific organization of work-rest regimes to control fatigue.

Course Name: Electro Physiology	**L**	**T**	**P**	**C**
Course Code: 303EP105	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives

- To provide foundational knowledge of the physical principles underlying electricity, electro physics, and therapeutic electrical modalities.
- To develop understanding of the physiological effects, indications, and contraindications of various electrotherapeutic agents.
- To train students in the safe and effective application of electro physical modalities used in physiotherapy practice.
- To enhance clinical decision-making by integrating electrophysiological principles with evidence-based treatment strategies.

Course Outcomes

CO1 Students will be able to explain the scientific principles of electrophysiology and the mechanisms of action of different electrotherapeutic modalities.
CO2 Students will identify appropriate indications, contraindications, and safety precautions for the use of electro physical agents.
CO3 Students will demonstrate competency in administering electrotherapy techniques, including patient setup and parameter selection.
CO4 Students will integrate electrophysiological knowledge into clinical reasoning and treatment planning to improve patient outcomes

THEORY

1. Characteristics and components of Electro therapeutic stimulation systems and Electro physiological assessment devices.
2. Exercise prescription for health and fitness with special emphasis to cardiovascular disease, Obesity and
3. Diabetes.
4. Instrumentation for neuromuscular electrical stimulation.
5. Anatomy and physiology of peripheral nerve, muscle and neuromuscular junction.
6. Electrical properties of muscle and nerve.
7. Muscles plasticity in response to electrical stimulation.
8. Electrical stimulation and its effects on various systems.
9. Clinical Electro physiological testing.

Course Name: Physical & Functional Diagnosis	**L**	**T**	**P**	**C**
Course Code: 303PF106	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives (4 Points)

- To develop a comprehensive understanding of physical, functional, and movement-based assessment methods used in physiotherapy.
- To train students in systematic patient evaluation, including history taking, observation, palpation, and special tests.
- To enhance students' ability to identify functional impairments, movement dysfunctions, and underlying pathological conditions.
- To build clinical reasoning skills for forming physiotherapy diagnoses and planning appropriate intervention strategies.

Course Outcomes (4 Points)

CO1 Students will demonstrate the ability to perform detailed physical and functional assessments across different body systems.

CO2 Students will accurately interpret clinical findings to identify impairments, functional limitations, and movement dysfunctions.

CO3 Students will apply critical thinking to derive physiotherapy diagnoses based on assessment results.

CO4 Students will utilize diagnostic findings to plan evidence-based, patient-centred treatment programs

THEORY

1. Clinical examination in general and detection of movement dysfunction.
2. Principles of pathological investigations and imaging techniques related to neuromuscular, skeletal and cardiopulmonary disorders with interpretation.
3. Developmental screening, motor learning-motor control assessment.
4. Anthropometric measurements.
5. Physical fitness assessment by Range of motion, Muscle strength, endurance and skills, Body consumption, Fitness test for sports.
6. Evaluation Methods, Special tests and Scales used in Musculoskeletal, Neurological and Cardiopulmonary disorders.
7. EMG and Biofeedback.
8. Biophysical measurements, physiotherapy modalities, techniques and approaches.
9. Evaluation of aging.
10. Aids and appliances, adaptive functional devices to improve movement dysfunction.
11. Exercise ECG testing and monitoring.
12. Pulmonary function tests and Spirometry.
13. Physical disability evaluation and disability diagnosis.
14. Gait analysis and diagnosis.

Course Name: Principal of Physiotherapy Practice-CL	**L**	**T**	**P**	**C**
Course Code: 303PP107	**0**	**0**	**1**	**1**

COURSE OF STUDY

Course Objectives

- To develop a comprehensive understanding of the fundamental principles, ethics, and professional standards governing physiotherapy practice.
- To enhance competency in patient assessment, clinical reasoning, treatment planning, and evidence-based decision-making.
- To cultivate effective communication, documentation, and interdisciplinary collaboration skills in clinical settings.
- To promote safe, ethical, patient-centered, and outcome-oriented physiotherapy management across various healthcare environments.

Course Outcomes

CO1 Demonstrate knowledge of the fundamental principles, ethical guidelines, and professional responsibilities involved in physiotherapy practice.
CO2 Perform comprehensive patient assessment and utilize clinical reasoning to identify physiotherapy problems and rehabilitation needs.
CO3 Apply evidence-based physiotherapy interventions while ensuring patient safety, effective communication, and professional conduct.
CO4 Develop, implement, and evaluate individualized physiotherapy management plans through appropriate documentation and outcome measurement.

PRACTICAL TOPICS

1. Clinical Documentation and Physiotherapy Record Keeping.
2. Informed Consent and Ethical Considerations in Physiotherapy Practice.
3. Professional Communication Skills with Patients and Healthcare Teams.
4. Evidence-Based Practice and Literature Search Techniques.
6. Comprehensive Physical Examination and Systems Review.
7. Pain Assessment Using Standardized Outcome Measures.
8. Functional Assessment and Goal Setting.
9. Postural Evaluation and Movement Analysis.
10. Risk Assessment and Patient Safety in Clinical Practice.
11. Clinical Reasoning and Problem List Formulation.
12. Development of Physiotherapy Diagnosis and Prognosis.
13. Treatment Planning Based on the International Classification of Functioning (ICF) Framework.
14. Outcome Measure Selection, Administration, and Interpretation.
15. Case Presentation and Clinical Decision-Making Seminar.

Course Name: Physical & Functional Diagnosis-CL	**L**	**T**	**P**	**C**
Course Code: 303PF108	**0**	**0**	**1**	**1**

COURSE OF STUDY

Course Objectives

- To develop advanced knowledge and skills in physical and functional assessment of patients across various clinical conditions.
- To train students in the selection, administration, and interpretation of standardized diagnostic and functional assessment tools.
- To enhance clinical reasoning abilities for identifying impairments, activity limitations, and participation restrictions.
- To enable students to formulate physiotherapy diagnoses and evidence-based rehabilitation goals based on assessment findings.

Course Outcomes

CO1 Perform comprehensive physical and functional assessments using appropriate examination techniques and standardized evaluation tools.
CO2 Analyse assessment findings to identify impairments, functional limitations, and rehabilitation needs in patients with various clinical conditions.
CO3 Select, administer, and interpret valid and reliable diagnostic and outcome measures for clinical decision-making.
CO4 Formulate physiotherapy diagnoses and develop patient-centred rehabilitation goals based on evidence-based clinical reasoning.

PRACTICAL TOPICS

1. Comprehensive Patient History Taking and Clinical Documentation.
2. Observation, Inspection, and Postural Assessment.
3. Anthropometric Measurements and Body Composition Assessment.
4. Goniometric Assessment of Joint Range of Motion.
5. Manual Muscle Testing (MMT) of Upper and Lower Extremities.
6. Functional Independence Assessment using Functional Independence Measure (FIM).
7. Timed Up and Go Test (TUG) and Functional Mobility Assessment.
8. Balance Assessment using Berg Balance Scale (BBS).
9. Functional Reach Test and Dynamic Balance Evaluation.
10. Gait Analysis and Functional Ambulation Assessment.
11. Assessment of Low Back Pain using Oswestry Disability Index (ODI).
12. Knee Function Assessment using WOMAC and LEFS.
13. Upper Limb Functional Assessment using DASH Questionnaire.
14. Stroke Functional Assessment using Fugl-Meyer Assessment and Modified Ashworth Scale.
15. Functional Evaluation of Parkinson's Disease using Hoehn and Yahr Scale and Balance Assessment.

Part II

Course Name: Physiotherapeutic	**L**	**T**	**P**	**C**
Course Code: 303PT201	**2**	**0**	**0**	**2**

COURSE OF STUDY

Course Objectives

- To provide foundational knowledge of therapeutic modalities and their physiological effects in physiotherapy practice.
- To develop understanding of the principles, indications, and contraindications of various physiotherapeutic interventions.
- To train students in the safe and effective application of therapeutic techniques for pain relief, healing, and functional restoration.
- To enhance clinical reasoning and decision-making for selecting appropriate physiotherapeutic treatments based on patient needs.

Course Outcomes

CO1 Students will explain the principles, mechanisms, and clinical uses of common physiotherapeutic modalities.

CO2 Students will identify suitable therapeutic interventions based on assessment findings, patient conditions, and safety considerations.

CO3 Students will demonstrate competency in applying physiotherapeutic techniques, including proper patient positioning and parameter selection.

CO4 Students will integrate physiotherapeutic modalities into evidence-based treatment plans to improve patient recovery and functional outcomes.

THEORY

1. Pain (neurobiology, various theories, modulation and management of pain)
2. Maternal and child care in general physiotherapy.
3. Theories of motor control and motor learning.
4. Theories of aging.
5. Cardiopulmonary medications and their effect on activity performance.
6. Exercise planning and prescription.
7. Use of Exercise therapy techniques and application on various types of cases.
8. Application of electrotherapy techniques on patients, monitoring of dosages and winding up procedure.
9. Ergonomic aspects of exercise on oxygen, energy consumption MET value of various exercises and activity.
10. Effect of aerobic, anaerobic as well as Isometric and Isokinetic exercises on cardiac function.
11. Physiotherapy in psychiatric conditions.
12. Massage, Mobilization and Manipulation
13. Manual therapy-different schools of thought
14. Principles of Neurological approaches.

15. Facilitation and inhibition techniques.
16. General Guidelines to be followed in Cardiac Rehabilitation, Pulmonary Rehabilitation, Burns Rehabilitation and Cancer Rehabilitation Protocol.
17. CPR, monitoring systems and defibrillators and artificial respirators.
18. Physiotherapy in common conditions of skin.
19. Physiotherapy following Plastic Surgery.
20. Physiotherapy Following Obstetric and Gynaecological Disorders.

YOGA

a) Concept of Yogic Practices Kinds of Yogic Practices; Asana, Pranayama, Kriya, Mudra, Bandha, Dhyana.
b) Asana: Definition, Scope and Limitations of Asanas-Classification of Asanas-Safety Measures and Precautions while performing Asanas
c) Pranayama: Meaning-Different Phases in Pranayama Practice Safety Measures and Precautions.
d) Meaning & benefits of Bandha-Different Bandhas. Meaning of Mudra-Types of Mudras
e) Practicing methods and benefits of Kriyas-Meaning-Types of Kriyas; Neti; Dhauthi
f) Meaning & concept of Meditation - Yogic practices and physical exercise. Yoga Practices and Other
g) Systems of Exercises Asanas Vs. Muscular Exercises Pranayama Vs Deep Breathing Exercises -Importance of Nerve Culture in Yoga - Yoga and Competition-Yoga and Modern Education

Course Name: Sports Disorders	**L**	**T**	**P**	**C**
Course Code: 303SD202	**3**	**0**	**0**	**3**

COURSE OF STUDY

Course Objectives

- To provide advanced knowledge of sports-related injuries, their mechanisms, and factors contributing to athletic performance and injury risk.
- To develop skills in assessing acute and chronic sports injuries, including functional, biomechanical, and performance-based evaluations.
- To train students in evidence-based physiotherapy management for prevention, treatment, and rehabilitation of sports disorders.
- To enhance clinical decision-making for designing sport-specific conditioning and return-to-play programs

Course Outcomes

CO1 Students will demonstrate understanding of common sports injuries, their pathology, clinical features, and rehabilitation considerations.

CO2 Students will perform comprehensive assessments including functional testing, movement analysis, and sport-specific evaluations.

CO3 Students will apply appropriate therapeutic interventions—manual therapy, exercise therapy, taping, and injury-prevention strategies—to manage sports disorders effectively.

CO4 Students will design individualized rehabilitation and performance-enhancement programs to safely return athletes to sport and prevent re-injury

THEORY

1. Psychological factors of sports injuries
2. Physiological factors of sports injuries Type of injuries, Reaction to injury, Response of joint structures to injury. Effect of immobilization, effects of remobilization, Inflammatory and healing process, micro trauma, stress reactions
3. Rules &regulations of sports, sport specific injuries, Patho mechanics of sport injuries Physical demand in different sports, Flexibility exercises.
4. Physiological effects of stretching & mobilizations prior to the participation in sports.
5. Types of exercises and their physiological effects related to sports. Biomechanics of sports and its relationship to joint injuries, Uses & application of biomechanics different sport events (like throwing mechanics, running mechanics, swimming mechanics)
6. Aquatic: Physical properties of water, Physiologic effects of water immersion and its therapeutic value
7. Epiphyseal injuries- Classification, complications and prognosis of epiphyseal injuries, Osgood Schlatter disease, traction epiphysis's, tendinitis at the insertion of patellar tendon, complete avulsion of the epiphysis of the tibial tubercle, shoulder, Contributing risk factors- intrinsic factors, and extrinsic factors

8. Shoulder Girdle injuries- Injuries to the sternoclavicular joint sprains, dislocations, Scapulothoracic joint lesions, acromioclavicular joint sprains, anterior dislocation of Glenohumeral joint, recurrent anterior dislocation of the shoulder, posterior dislocation of shoulder, thoracic outlet syndrome.
9. Painful are, Rotator cuff injuries, Impingement syndromes, Glenoid Labrum lesions
10. Elbow joint Injuries- Olecranon bursitis, Vagus extension overload, elbow, Ulnar nerve lesions, Ulnar & Radial collateral ligament sprains, Contusions and strains, Dislocations, Osteochondritis dissicans, Little Leaguers elbow, problems resulting from throwing-medial lesions, lateral lesions posterior lesions. Epicondylitis-Incidence, pathology, and mechanism of injury.
11. Wrist and hand Injuries- Colle's fracture, scaphoid fracture, Gamekeeper's Thumb, DIP joint fracture & dislocation, Jersey finger, Boutonniere deformity, pseudo boutonniere deformity, fractures of the metacarpals.
12. Bennett's fracture, mallet finger, Dequervain's tenosynovitis of the thumb, Bowler's, thumb, handler palsy, Hamate fracture, Ganglion cysts, Trigger finger: Carpal tunnel syndrome.
13. Thigh Injuries- Contusion to the quadriceps, strain of the quadriceps musculature, scute strain of the hamstring group, complete rupture of the patellar tendon.
14. Knee Injuries- Knee ligament injuries first-degree sprain, second-degree sprain, Third degree sprain, Anterior and posterior cruciate tears, anterolateral instability meniscal-lesion, Articular cartilage lesions, Patello femoral dysfunction.
15. Injuries of the patella-Patella fracture-acute-dislocation, recurrent disloc3tion, subluxation and spontaneous reduction of a dislocated patella, Osteochondritis dissicans, Jumper's knee.
16. Injuries to lower leg, ankle and foot-Tibiofibular synostosis, Rupture of the gastrocnemius, tennis leg, total rupture of the Achilles tendon, partial rupture of the Achilles tendon, Tendinopathies-Achilles tendonitis, Anterior Tibialis tendonitis, Peroncal tendinitis. Poster tibialis tendonitis, Flexor hallucis longus tendinitis, Flexor digitorum longus tendinitis. Compartmental compression syndromes, Heel bruiese, Os trigonum injury. Calcaneal apophysitis, Tarsometatarsal injuries. Tarsal tunnel syndrome, Cuboids syndrome, Metatarsal stress fracture, Interdigital neuroma, Stair Climbers transient parasthesia, Turf toe, sesmoitidis. Injuries to the Ankle-Syndesmotic ankle sprain, Inversion sprains, eversion sprains, dorsiflexion sprains, tarsal tunnel syndrome, stress fracture of the metatarsal, vorton's neuromas, corns and calluses, blisters, ingrown toenails, peroneal tendon subluxation.
17. Injuries to the low back-Postural syndrome, Dysfunction syndrome, Derangement syndrome, spondylolisthesis.
18. Injuries to the Running Athlete-Causes of overuse injuries- Common running induced injuries to the lower back- common running induced injuries to the hip-Iliotibial tract pain. Trochanteric bursitis, stress fracture of femoral neck. Slipped capital femoral epiphysis, vague hip pain.

19. Swimming Injuries- "Swimmers Shoulder" anterior subluxation of the Glenohumeral Joint, breast stroke's injury.

20. Assessment of sports related injuries

21. Recent advancements in sports injuries & physiotherapeutic interventions

Course Name: Physiotherapeutic- CL	**L**	**T**	**P**	**C**
Course Code: 303PT203	**0**	**0**	**1**	**1**

COURSE OF STUDY

Course Objectives

- To develop competency in comprehensive physiotherapy assessment, clinical examination, and interpretation of findings across various clinical conditions.
- To enhance practical skills in planning and implementing evidence-based physiotherapy interventions for the prevention, treatment, and rehabilitation of patients.
- To promote clinical reasoning, problem-solving, and decision-making abilities required for effective patient management in diverse healthcare settings.
- To foster professional communication, documentation, ethical practice, and patient-centred care during physiotherapy assessment and treatment procedures.

Course Outcomes

CO1 Demonstrate proficiency in conducting physiotherapy assessments, selecting appropriate outcome measures, and identifying patient impairments and functional limitations.

CO2 Apply evidence-based physiotherapeutic techniques, therapeutic exercises, manual therapy approaches, and rehabilitation protocols safely and effectively.

CO3 Analyse clinical findings and formulate individualized treatment plans based on patient needs, goals, and current scientific evidence.

CO4 Exhibit professional competence in patient education, clinical documentation, ethical practice, and evaluation of treatment outcomes in various physiotherapy settings.

PRACTICAL TOPICS

1. Comprehensive Physiotherapy Assessment and Clinical Documentation.
2. Goniometric Measurement of Joint Range of Motion.
3. Manual Muscle Testing of Upper and Lower Extremities.
4. Postural Assessment and Postural Correction Techniques.
5. Gait Analysis and Gait Re-education.
6. Balance and Coordination Assessment and Training.
7. Electrotherapy Application: TENS, IFT, and Ultrasound.
8. Therapeutic Exercise Prescription and Progression.
9. Functional Outcome Measure Assessment and Interpretation.
10. Core Stability Assessment and Training.
11. Proprioceptive Neuromuscular Facilitation (PNF) Techniques.
12. Ergonomic Assessment and Workplace Modification.
13. Pulmonary Physiotherapy: Breathing Exercises and Airway Clearance Techniques.
14. Neurological Rehabilitation: Task-Oriented Training and Functional Re-education.
15. Sports Injury Assessment and Return-to-Activity Rehabilitation.

Yoga & Wellbeing in Physiotherapeutic

1. Yoga for Musculoskeletal Health
2. Yoga in Low Back Pain Management
3. Pranayama Techniques for Cardiopulmonary Rehabilitation
4. Yoga for Stress Management and Mental Well-being
5. Yoga-Based Balance and Fall Prevention Training

Course Name: Sports Disorders-CL	**L**	**T**	**P**	**C**
Course Code: 303SD204	**0**	**0**	**2**	**2**

COURSE OF STUDY

Course Objectives

- To develop advanced knowledge of sports injuries, prevention, and rehabilitation.
- To enhance skills in athlete assessment and performance evaluation.
- To provide competency in evidence-based sports rehabilitation and return-to-play decision-making.
- To promote injury prevention and performance optimization strategies.

Course Outcomes

CO1 Conduct comprehensive assessment of sports injuries and athletic performance.
CO2 Apply evidence-based rehabilitation techniques for sports injury management and recovery.
CO3 Utilize sport-specific outcome measures and functional testing for performance evaluation.
CO4 Develop injury prevention and return-to-sport programs to optimize athletic participation and performance.

PRACTICAL TOPICS

1. FIFA 11+ injury prevention program.
2. Neuromuscular training for ACL injury prevention.
3. Emergency injury management & all specific flags in sports injury and their uses
4. Plyometric training and athletic performance.
5. Kinesio taping method for all specific joints
6. Hamstring injury rehabilitation.
7. Eccentric training in tendinopathy.
8. Fatigue and dynamic knee valgus.
9. Functional movement screening and injury prediction.
10. Recovery strategies after high-intensity exercise.
11. Concussion rehabilitation and return-to-play.
12. Shoulder injury prevention in overhead athletes.
13. Agility training in football players.
14. Core stability training in athletes.
15. Balance training in injury prevention.

Assessment Tools

1. Functional Movement Screen (FMS)
2. Y-Balance Test
3. Hop Test Battery
4. Landing Error Scoring System (LESS)
5. Single-Leg Squat Test

Course Name: Dissertation	**L**	**T**	**P**	**C**
Course Code: 303DS205	**0**	**0**	**0**	**5**

Course Objectives

- The dissertation is an essential component of the Master of Physiotherapy program and represents the culmination of postgraduate learning, clinical reasoning, and research competency. It provides students with an opportunity to investigate a clinically relevant problem using scientific methods and evidence-based approaches.
- Through the dissertation process, students are expected to demonstrate their ability to identify research gaps, formulate research questions, critically analyse literature, apply appropriate methodology, interpret findings, and draw meaningful conclusions that contribute to physiotherapy practice.
- Research plays a fundamental role in advancing physiotherapy as a healthcare profession. The dissertation serves as a platform for developing these competencies while fostering professional growth, ethical responsibility, and scientific inquiry.
- The dissertation should reflect originality, academic integrity, and methodological rigor. Students are encouraged to select research topics that are clinically significant, feasible, and aligned with their area of specialization, including Musculoskeletal Disorders, Orthopaedic Disorders, Neurological Disorders, Cardiopulmonary Disorders, or Sports Disorders.

General Guidelines

1. The dissertation must be based on original work conducted by the student under the supervision of an approved guide.
2. The study should address a clinically relevant problem and contribute to the body of physiotherapy knowledge.
3. Written informed consent must be obtained from all participants.
4. The dissertation should be written in clear, concise, and professional academic language.
5. Similarity index should comply with university and UGC regulations.
6. Statistical analysis should be appropriate to the study design and research objectives.
7. The final dissertation should be submitted in both printed and digital formats.
8. Students are expected to submit a copy of synopsis in MPT Part I examination to confirm there topic for the further research work.

Link to dissertation format :

https://drive.google.com/file/d/1RA4P6e33T0n-XKU2TmwBI9I8D237I1lU/view

Link to the synopsis guidelines

https://drive.google.com/file/d/1Iptu-Jvbn0rxv81I8xVtc1uBH0uM3BeV/view

Books & Resources

S.NO.	Subject	Book Title	Author(s)
1.	Principles of Physiotherapy Practice	Physical Rehabilitation	Susan B. O'Sullivan & Thomas J. Schmitz
2.	Principles of Physiotherapy Practice	Therapeutic Exercise: Foundations and Techniques	Carolyn Kisner & Lynn Allen Colby
3.	Research Methodology & Biostatistics	Research Methodology: A Step-by-Step Guide for Beginners	Ranjit Kumar
4.	Research Methodology & Biostatistics	Biostatistics: A Foundation for Analysis in the Health Sciences	Wayne W. Daniel & Chad L. Cross
5.	Biomechanics	Basic Biomechanics	Susan J. Hall
6.	Biomechanics	Biomechanics and Motor Control of Human Movement	David A. Winter
7.	Exercise Physiology	Exercise Physiology: Nutrition, Energy and Human Performance	William D. McArdle, Frank I. Katch & Victor L. Katch
8.	Exercise Physiology	Physiology of Sport and Exercise	W. Larry Kenney, Jack Wilmore & David Costill
9.	Electrophysiology / Electrotherapy	Electrotherapy Explained	Val Robertson, Alex Ward, John Low & Ann Reed
10.	Electrophysiology / Electrotherapy	Modalities for Therapeutic Intervention	Robert C. Manske
11.	Physical & Functional Diagnosis	Orthopedic Physical Assessment	David J. Magee
12.	Physical & Functional Diagnosis	Muscles: Testing and Function with Posture and Pain	Florence Peterson Kendall
13.	Physio therapeutics	Physical Agents in Rehabilitation	Michelle H. Cameron
14.	Physio therapeutics	Therapeutic Modalities in Rehabilitation	William E. Prentice
15.	Yoga	Light on Yoga	B.K.S. Iyengar
16.	Yoga	The Heart of Yoga	T.K.V. Desikachar
17.	Orthopedic Disorders	Orthopedic Physical Therapy	Robert A. Donatelli

18.	Orthopedic Disorders	Orthopedic Physical Assessment	David J. Magee
19.	Musculoskeletal Disorders	Joint Structure and Function	Pamela K. Levangie & Cynthia C. Norkin
20.	Musculoskeletal Disorders	Musculoskeletal Examination and Assessment	Nicola J. Petty
21.	Cardiorespiratory Disorders	Cardiopulmonary Physical Therapy	Scott Irwin, John Heick & Melissa Tovin
22.	Cardiorespiratory Disorders	Clinical Exercise Physiology	Jonathan Myers, Steven Keteyian & Paul Haidet
23.	Sports Disorders	Physical Rehabilitation of the Injured Athlete	James R. Andrews & Gary L. Harrelson
24.	Sports Disorders	Sports Rehabilitation and Injury Prevention	Paul Comfort & Earle Abrahamson
25.	Neurological & Psychosomatic Disorders	Neurological Rehabilitation	Darcy Ann Umphred
26.	Neurological & Psychosomatic Disorders	Motor Control	Anne Shumway-Cook & Marjorie Woollacott

Journal Websites for Literature Review

S. No.	Platform / Site Name	Website Link	Type
1.	Google Scholar	https://scholar.google.com	Search Engine
2.	ResearchGate	https://www.researchgate.net	Research Platform
3.	Academia.edu	https://www.academia.edu	Research Platform
4.	Elsevier (ScienceDirect)	https://www.sciencedirect.com	Publisher
5.	Springer (SpringerLink)	https://link.springer.com	Publisher
6.	Wiley Online Library	https://onlinelibrary.wiley.com	Publisher
7.	Taylor & Francis	https://www.tandfonline.com	Publisher
8.	Directory of Open Access Journals	https://www.doaj.org	Open Access
9.	PubMed Central	https://www.ncbi.nlm.nih.gov/pmc	Open Access
10.	Shodh ganga	https://shodhganga.inflibnet.ac.in	Indian Source
11.	UGC-CARE	https://ugccare.unipune.ac.in	Indian Source
12.	International Journal of Physiotherapy (IJPHY)	https://ijphy.com	IJPHY Publication

13.	Physiotherapy – The Journal of Indian Association of Physiotherapists	https://journals.lww.com/iaph	Indian Association of Physiotherapists
14.	Journal of Society of Indian Physiotherapists	https://ipindexing.com	Society of Indian Physiotherapists
15.	Indian Journal of Physical Therapy and Research (IJPTR)	https://iacpindia.org	Indian Association of Chartered Physiotherapists
16.	International Journal of Physiotherapy and Research (IJPR)	https://ijmhr.org	IJMHR Publication