

Year wise subjects

1st Year

1. Professional Practice
2. Research Methodology and Biostatistics
3. Biomechanics and Clinical Kinesiology
4. Exercise Physiology & Nutrition
5. Electrophysiology & Electro-diagnosis
6. Physiotherapy Diagnosis & Clinical Decision Making
7. Advanced Physiotherapeutics

PROFESSIONAL PRACTICE -

(History, Laws, Ethics, Administration, Education)

1. Development of Physiotherapy Profession
2. Laws governing physiotherapy practice
3. Ethical issues in practice of physiotherapy-Clinical, Research and Academics.

Ethics in Physiotherapy practice, clinical and research, code of conduct for safe disciplined practice – legal aspect, Rights and responsibility of physiotherapist and client, PWD Act .

Rules and regulations governing physiotherapy practice- National & International Administration, legislation, rules and regulations governing physiotherapy practice- National & International.

4. Administration -

Physiotherapy Management in Hospital, community & Industry.

Principles of management, planning, organisation, budget, policy procedures and quality assurance.

Communication skills, leadership quality & teamwork

Importance of documentation, types of documentation systems, documentation of professional assessment including International Classification of Functioning Disability & Health (ICF) format.

5. Scope of Physiotherapy in Hospital, Community & Industry.
6. Roles of the physiotherapist as per WCPT/WHO
7. Standards for practice for physiotherapist and the criteria as competency statements
8. Education – Formal and non-formal – Philosophy of health education, curricular planning. Teaching technology – teaching learning methods, interactive learning, methods to facilitate learning, use of audio-visual aids, clinical teaching, methods of assessment of student competencies
9. Documentation of rehabilitation assessment and management using International Classification of Functioning Disability and Health (ICF)
10. Future challenges in physiotherapy.

RESEARCH METHODOLOGY AND BIostatISTICS

– RESEARCH METHODOLOGY

1. Introduction to research
2. Types of research
3. Defining a research question
4. Qualitative study designs
 - a. Grounded theory and Phenomenological methods.
5. Use of Delphi process
6. Quantitative study
7. Type I and type II bias
8. Study design: types
 - a. Case study, Case series, longitudinal cohort, Pre post design, Time series design, repeated measures design, Randomized control design.
9. Sampling design, calculating minimum sample size based on design
10. Measurement: Properties of measurement: reliability, validity, responsiveness, MCID.
11. Outcome measures: Use of outcome measures in rehabilitation research
12. Research Methods: Designing methodology, Reporting results,
13. Communicating research.

14. Evaluating published research: looking at the evidence
15. Introduction to evidence based practice, evaluating evidence,
16. Asking clinical questions
17. Translating of evidence into practice: strategies
18. Use of clinical practice guidelines, clinical pathways, prediction rules to inform practice.

APPLIED BIostatISTICS

1. Descriptive Statistics and measurement variability
2. Statistical inference
3. Comparison of group means: T-test
4. Analysis of variance
5. Multiple comparison tests
6. Non parametric tests
7. Correlations
8. Regression
9. Analysis of frequencies: Chi square
10. Statistical measure of reliability
11. Power analysis – Determining sample size
12. Epidemiological Measures – Rate, Ratio, Proportion, Incidence and prevalence, Relative risk, Risk ratio, Odds ratio.

SCIENTIFIC WRITING

1. Definition and kinds of scientific documents – Research paper, Review paper, Book, Reviews, Thesis, Conference and project reports (for the scientific community and for funding agencies).
2. Publication – Role of author, Guide, Co-authors.
3. Structure, Style and contents; Style manuals (APA, MLA); Citation styles: Footnotes, References; Evaluation of research

4. Significance of Report writing; Different steps in Report writing; Mechanics and precautions of writing research reports Oral and poster presentation of research papers in conferences/symposia; Preparation of abstracts.

5. Structure of Thesis and Content – Preparing Abstracts.

BIOMECHANICS & CLINICAL KINESIOLOGY

1. Biomechanics of Tissues and structures of the musculoskeletal system and clinical application.
2. Normal and applied Biomechanics of Spine, Upper extremity and Lower extremity.
3. Clinical kinesiology of posture.
4. Biomechanics and patho-mechanics 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

EXERCISE PHYSIOLOGY & NUTRITION

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. Body composition, nutrition and caloric balance and performance
6. Considerations of age and sex in exercise and training.
7. Exercise prescription for health and fitness with special emphasis to cardiovascular disease, Obesity and Diabetes.
8. Fatigue assessment and scientific organization of work-rest regimes to control fatigue.
9. Supplementary nutrition

ELECTROPHYSIOLOGY & ELECTRO DIAGNOSIS

1. Characteristics and components of Electro therapeutic stimulation systems and Electro Physiological assessment devices.
2. Instrumentation for neuromuscular electrical stimulation.
3. Anatomy and physiology of peripheral nerve, muscle and neuromuscular junction.
4. Electrical properties of muscle and nerve.
5. Muscles plasticity in response to electrical stimulation.
6. Electrical stimulation and its effects on various systems.
7. Clinical Electro physiological testing and clinical interpretation.
8. Safety considerations in electrotherapy

PHYSIOTHERAPY DIAGNOSIS AND CLINICAL DECISION MAKING -

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 - Body composition, Flexibility, Muscle strength, endurance, Cardio-respiratory endurance. Skills, Testing of agility- balance, co-ordination.
6. Evaluation Methods, Special tests 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. Posture and Gait analysis and diagnosis.
15. Clinical decision making in electrotherapeutics

PRACTICAL -

1. Introduction to Screening for Referral In Physiotherapy

- a. Reasons to Screen
- b. Screenings and Surveillance
- c. Diagnosis by the Physiotherapist

- d. Differential Diagnosis versus Screening
- e. Direct Access
- f. Decision-Making Process Case Examples and Case Studies.

2. Introduction to the interviewing process

- a. Concepts in Communication
- b. Cultural Competence
- c. The Screening Interview
- d. Subjective Examination
- e. Core Interview
- f. Hospital Inpatient Information

3. Overview of the physiology of pain and systemic causes of pain

- a. Mechanisms of Referred Visceral Pain
- b. Multi-segmental Innervations
- c. Assessment of Pain and Symptoms

d. Sources of Pain

e. Types of Pain

f. Comparison of Systemic Versus Musculoskeletal Pain

g. Patterns

h. Characteristics of Viscerogenic Pain,

i. Screening for Emotional and Psychologic Overlay

j. Screening for Systemic Versus Psychogenic Symptoms

4. Physical assessment as a screening tool

a. General Survey

b. Techniques of Physical Examination

c. Integumentary Screening Examination

d. Nail Bed Assessment

e. Lymph Node Palpation

f. Musculoskeletal Screening Examination

g. Neurologic Screening Examination

h. Regional Screening Examination

i. Systems Review

5. Screening for hematologic disease

a. Signs and Symptoms of Hematologic

Disorders b. Classification of Blood Disorders

6. Screening for cardiovascular disease

a. Signs and Symptoms of Cardiovascular Disease

b. Cardiac Pathophysiology

c. Cardiovascular Disorders

d. Laboratory Values.

7. Screening for pulmonary disease

- a. Signs and Symptoms of Pulmonary Disorders
- b. Inflammatory/Infectious Disease
- c. Genetic Disease of the Lung
- d. Occupational Lung Diseases
- e. Pleuropulmonary Disorders

8. Screening for gastrointestinal disease

- a. Signs and Symptoms of Gastrointestinal Disorders
- b. Gastrointestinal Disorders

9. Screening for hepatic and biliary disease

- a. Hepatic and Biliary Signs and Symptoms

b. Hepatic and Biliary Pathophysiology

c. Gallbladder and Duct Diseases

10. Screening for urogenital disease

a. Signs and Symptoms of Renal and Urological Disorders,

b. The Urinary Tract

c. Renal and Urological Pain

d. Renal and Urinary Tract Problems

11. Screening for endocrine and metabolic disease

a. Associated Neuromuscular and Musculoskeletal Signs and Symptoms

b. Endocrine Pathophysiology

c. Introduction to Metabolism

12. Screening for immunologic disease

a. Using the Screening Model

b. Immune System Pathophysiology

c. Physician Referral

13. Screening for Cancer

a. Cancer Statistics

b. Risk Factor Assessment

c. Cancer Prevention

d. Major Types of Cancer

e. Metastases

f. Clinical Manifestations of Malignancy

g. Oncologic Pain

- h. Side Effects of Cancer Treatment
- i. Cancers of the Musculoskeletal System
- j. Primary Central Nervous System Tumors
- k. Cancers of the Blood and Lymph System

14. Screening the head, neck, and back

- a. Using the Screening Model to Evaluate the Head, Neck, or Back, b. Location of Pain and Symptoms c. Sources of Pain and Symptoms
- d. Screening for Oncologic Causes of Back Pain
- e. Screening for Cardiac Causes of Neck and Back Pain f. Screening for Peripheral Vascular Causes of Back Pain g. Screening for Pulmonary Causes of Neck and Back Pain h. Screening for Renal and Urologic Causes of Back Pain,

- i. Screening for Gastrointestinal Causes of Back Pain
- j. Screening for Liver and Biliary Causes of Back Pain
- k. Screening for Gynecologic Causes of Back Pain

- l. Screening for Male Reproductive Causes of Back Pain
- m. Screening for Infectious Causes of Back Pain

15. Screening the sacrum, sacroiliac, and pelvis

- a. The Sacrum and Sacroiliac Joint
- b. The Coccyx
- c. The Pelvis

16. Screening the lower quadrant: buttock, hip, groin, thigh, and leg

- a. Using the Screening Model to Evaluate the Lower Quadrant
- b. Trauma as a Cause of Hip, Groin, or Lower Quadrant Pain
- c. Screening for Systemic Causes of Sciatica
- d. Screening for Oncologic Causes of Lower Quadrant Pain
- e. Screening for Urologic Causes of Buttock, Hip, Groin, or Thigh Pain
- f. Screening for Male Reproductive Causes of Groin Pain
- g. Screening for Infectious and Inflammatory Causes of Lower Quadrant Pain
- h. Screening for Gastrointestinal Causes of Lower Quadrant Pain
- i. Screening for Vascular Causes of Lower Quadrant Pain
- j. Screening for Other Causes of Lower Quadrant Pain

17. Screening the chest, breasts, and ribs

- a. Using the Screening Model to Evaluate the Chest, Breasts, or Ribs
- b. Screening for Oncologic Causes of Chest or Rib Pain
- c. Screening for Cardiovascular Causes of Chest, Breast, or Rib Pain
- d. Screening for Pleuro-pulmonary Causes of Chest, Breast, or Rib Pain
- e. Screening for Gastrointestinal Causes of Chest, Breast, or Rib Pain
- f. Screening for Breast Conditions that Cause Chest or Breast Pain

g. Screening for Other Conditions as a Cause of Chest, Breast, or Rib Pain h.

Screening for Musculoskeletal Causes of Chest, Breast, or Rib Pain

i. Screening for Neuromuscular or Neurologic Causes of Chest, Breast, or Rib Pain

18. Screening the shoulder and upper extremity

a. Using the Screening Model to Evaluate Shoulder and Upper Extremity

b. Screening for Pulmonary Causes of Shoulder Pain

c. Screening for Cardiac Causes of Shoulder Pain

d. Screening for Gastrointestinal Causes of Shoulder Pain

e. Screening for Liver and Biliary Causes of Shoulder Pain

f. Screening for Rheumatic Causes of
Shoulder Pain g. Screening for Infectious

Causes of Shoulder Pain h. Screening for
Oncologic Causes of Shoulder Pain

i. Screening for Gynecologic Causes of
Shoulder Pain

ADVANCED PHYSIOTHERAPEUTICS -

1. Pain (neurobiology, various theories, assessment, modulation and management of pain)

2. Maternal and child care in general physiotherapy.

3. Theories of motor control and motor learning.

4. Effect of medications on activity performance.

5. Exercise planning and prescription.

6. Use of Exercise therapy techniques and application on various types of cases.

7. Effect of aerobic, anaerobic, Isometric, Isotonic and Isokinetic exercises on muscle and cardio-pulmonary function

8. Application of advanced electrotherapy modalities & 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. Physiotherapy for health and stress management.
11. Massage, Mobilization and Manipulation
12. Manual therapy – different schools of thought
13. Principles of Neurological approaches.
14. Facilitation and inhibition techniques.
15. General Guidelines to be followed in Cardiac Rehabilitation, Pulmonary Rehabilitation, Burns Rehabilitation and Cancer Rehabilitation Protocol.
16. CPR, monitoring systems and defibrillators and artificial respirators.
17. Physiotherapy in Disaster management
18. Physiotherapy in common conditions of skin.
19. Physiotherapy following Plastic Surgery.
20. Physiotherapy following Obstetric and Gynecological Disorders.
21. Integration of Yoga in Physiotherapy for Health promotion and Dysfunction

2st Year MPT

Second Year Residency in Speciality subjects

Musculoskeletal Physiotherapy

Advances in Musculoskeletal Physiotherapy – (Part I)

(Musculo-skeletal Dysfunctions of the Upper Quadrant)

(Upper Quadrant includes occiput, cervical spine, thoracic spine, shoulder girdle and upper extremities)

1. Anatomical, Physiological and Biomechanical basis for assessment of movement dysfunctions of the upper quadrant
2. Patho-physiological and Patho-mechanical basis for management of movement dysfunctions of the upper quadrant
3. Clinical decision making skills in evaluation & management of all pediatric, adult and geriatric dysfunctions of the upper quadrant

4. Advances in functional diagnostic procedures & various outcome measures relevant to musculo-skeletal dysfunctions of the upper quadrant
5. Patho-biological mechanisms of pain; Recent advances in pain evaluation and management
6. Advances in the field of Manual Therapy
7. Principles of musculo-skeletal health and performance related fitness and Physiotherapeutic management of musculo-skeletal injuries & dysfunctions in various sports
8. Principles of assessment of industrial fitness and assessment & management of musculoskeletal dysfunctions related to various industries.
9. Ergonomics in Musculo-skeletal dysfunction of the upper quadrant.
10. Assistive technology used for stability and mobility to enhance function.
11. Therapeutic application of Yogasanas for musculoskeletal health and fitness (upper quadrant)
12. Evidence based practice to formulate effective assessment and treatment program
13. Evaluation of disability
14. Legislation and social care.
15. Assessment, clinical reasoning and management of Integumentary impairments due to musculoskeletal dysfunction
16. Pharmacotherapeutics in musculoskeletal conditions and its relevance in physiotherapy
17. Clinical decisions for lower quadrant function in presence of upper quadrant dysfunction-

Advances in Musculoskeletal Physiotherapy –(Part II)

(Musculo-skeletal Dysfunctions of the Lower Quadrant)

(Lower Quadrant includes lumbar spine, sacrum, pelvis and lower extremities)

1. Anatomical, Physiological and biomechanical basis for assessment of movement dysfunctions of the lower quadrant
2. Pathophysiological and Pathomechanical basis for management of movement dysfunctions of the lower quadrant
3. Clinical decision making skills in evaluation & management of all pediatric, adult and geriatric dysfunctions of of the lower quadrant
4. Advances in functional diagnostic procedures & various outcome measures relevant to musculo-skeletal dysfunctions of the lower quadrant
5. Pathobiological mechanisms of pain; Recent advances in pain evaluation and management
6. Advances in the field of Manual Therapy
7. Principles of musculo-skeletal health and performance related fitness and Physiotherapeutic management of musculo-skeletal injuries & dysfunctions in various sports
8. Principles of assessment of industrial fitness and assessment & management of musculoskeletal dysfunctions related to various industries.
9. Ergonomics in Musculo-skeletal dysfunction of the lower quadrant
10. Assistive technology used for stability and mobility to enhance function.
11. Therapeutic application of Yogasanas for musculoskeletal health and fitness (lower quadrant)
12. Evidence based practice to formulate effective assessment and treatment program
13. Evaluation of disability
14. Legislation and social care.
15. Assessment and management of Integumentary impairments due to musculoskeletal dysfunction.
16. Clinical decisions for upper quadrant function in presence of lower quadrant dysfunction

CLINICAL POSTING

Second year

Neuro Physiotherapy

Advances in Neurophysiotherapy - (Part I)

This paper will focus on advances in theory and practices in paediatric neurological conditions

1. Gross and fine motor development skills, posture and gait examination and functional performance
2. Facilitation of development using appropriate skills in a neurologically disabled child
3. Congenital and acquired disorders affecting growth and development of child
4. Advanced skills in assessment of paediatric neuropathological, neuropsychological and neurosurgical conditions
5. Advanced Physiotherapy approaches – Neurophysiological principles, skills of handling in

various approaches and rationale for effective management.

6. Clinical decision making and evidence based practice to formulate effective assessment and treatment program
7. Theories of motor control and learning, perceptuomotor and sensory issues in children
8. Early identification of paediatric neurological disorders and early intervention skill.
9. Role of Physiotherapy in progressive paediatric neurological conditions, management of terminally ill child
10. Role of Physiotherapy in Neonatal intensive care units
11. Social integration of child in school and community – measures to ensure – attitudinal, environmental, manpower, assistive technology, legislation and support
12. Assessment, clinical reasoning and management, of Integumentary and other system impairments due to neuromusculoskeletal dysfunction.
13. Pharmacotherapeutics in neurological conditions and its relevance in physiotherapy

Advances in Neurophysiotherapy (Part II)

This paper will focus on advances in theory and practices in adult neurological conditions

1. Neurodevelopment and neurophysiological approaches in Adult neurological conditions
2. Advance skills in assessment of adult neuro-pathological, neuropsychological and neurosurgical conditions
3. Various outcome measures and assessment methods used in geriatric & adult neurological conditions
4. Clinical decision making and evidence based practice to formulate effective assessment and treatment program
5. Advanced Neuro-therapeutic skills for management
6. Role of Physiotherapy in progressive neurological conditions, management of terminally ill patient.
7. Facilitation and coping up with problems associated with ageing.
8. Prevention of age related complications

Social integration in community – measures to ensure – attitudinal, environmental, manpower, assistive technology, legislation and support

9. Pharmacotherapeutics in neurological conditions and its relevance in physiotherapy

CLINICAL POSTING

Second year

Neonatal and Acute care and Rehabilitation of

neuromedical and surgical disorders:

Adult Neuro-medical, neurosurgical and OPD,

Pediatrics Neuro-medical, neurosurgical and

OPD, Early intervention.

Cardiovascular and Respiratory Physiotherapy

Advances in Cardiovascular and Respiratory Physiotherapy (Part I).

(Respiratory Physiotherapy)

1. Structural, functional and Biomechanical basis for assessment and management of dysfunctions of the respiratory system and thorax throughout the life span.
2. Clinical reasoning in physiotherapeutic evaluation & management of all neonatal, pediatric, adult and geriatric dysfunctions of the respiratory system and thorax in acute care and in rehabilitation
3. Advances in functional diagnostic procedures & various outcome measures relevant to assess intervention to dysfunctions of thorax and respiratory system.
4. Interpretation and application of Investigations related to Respiratory and thoracic dysfunction and its relevance to physiotherapy.
5. Evidence based practice in management of Respiratory & Thoracic impairments & dysfunction.
6. Pulmonary rehabilitation
7. Ergonomics and energy conservation in Respiratory dysfunction and use of assistive devices to enhance function and performance.
8. Pathology of pain in medical and Post-surgical conditions related to thoracorespiratory dysfunction and advances in its evaluation and management
9. Clinical decision making and evidence based practice in physiotherapeutic evaluation & management of all medical, surgical and traumatic disorders across the life span in a critical care (ICU) setting
10. Management of the critically ill: knowledge of Airways -types & management Mechanical ventilator, use of Oxygen therapy; Physiotherapeutic Interventions in intensive care, weaning and ICU monitoring.
11. Postoperative respiratory care
12. Principles of health and performance, Risk stratification, Prevention and health promotion
13. Pharmacotherapeutics in respiratory condition and its relevance with physiotherapy

Advances in Cardiovascular and Respiratory Physiotherapy (Part II)

(Cardiovascular Physiotherapy)

1. Structural and functional and Biomechanical basis for assessment and management of dysfunctions of the circulatory system including peripheral vessels and mediastinum throughout the life span.
2. Clinical decision making skills in physiotherapeutic evaluation & management of all neonatal, pediatric, adult and geriatric dysfunctions of the cardiovascular including peripheral Vasculature system and mediastinum in acute care and rehabilitation
3. Advances in functional diagnostic procedures & various outcome measures relevant to assess intervention to dysfunctions of cardiovascular and peripheral vascular system.
4. Evidence based practice in assessment and management of cardiovascular and peripheral vascular dysfunction and failure

5. Ergonomics and energy conservation in cardiovascular dysfunction and use of assistive devices to enhance function and performance.
6. Pathology of pain in medical and surgical impairments related to cardiovascular dysfunction and advances in its evaluation and management
7. Clinical decision-making skills in physiotherapeutic evaluation & management of all medical, surgical and traumatic conditions across the life span in a critical care (ICU) setting
8. Management of the critically ill: knowledge of Airways -types & management Mechanical ventilator, use of Oxygen therapy; Physiotherapeutic Interventions in intensive care, weaning and ICU monitoring
9. Postoperative respiratory care
10. Cardiac Rehabilitation
11. Vascular rehabilitation
12. Principles of health and performance, Risk stratification, Prevention and health promotion
13. Interpretation and application of Investigations related to Respiratory, cardiac and thoracic dysfunction and its relevance to physiotherapy.
14. Pharmacotherapeutics in cardiac condition and its relevance with physiotherapy.
15. Clinical decision-making skills in physiotherapeutic evaluation & management of Lifestyle disorders.
16. Cardio-Respiratory fitness testing and training in sports and diseases
17. Knowledge and skill of basic life support
18. Clinical reasoning, assessment and management of Integumentary and other system impairments due to cardiovascular and respiratory diseases

CLINICAL POSTING

Second year

Acute care & Rehabilitation in Cardiovascular & Respiratory dysfunctions:

Intensive care units, Cardiovascular & Respiratory,

(Indoor & OPD)

COMMUNITY PHYSIOTHERAPY

Advances in Community Physiotherapy –Part I (Essentials of Community

Physiotherapy)

1. Health and Illness; Levels of Healthcare & Fitness
2. Principles and practice of fitness training for health promotion in community
3. Basic Concepts of rehabilitation and foundations of rehabilitation
4. Institute based rehabilitation services and multi-disciplinary approach.
5. Methodology of CBR with reference to National Health Delivery system.
6. Role of National Institutes, District Rehabilitation Centre and Primary Health Centre (with appropriate exposure).
7. Public awareness to the various disabilities. Communications, Message generation and dissipation.
8. National and UN (United Nations) Legislations for persons with disability.

9. Disability detection and early intervention.
10. Appropriate Technology, Assistive devices used for Stability & Mobility to enhance function
11. Home exercise programs for various classifications of disabilities.
12. Physical fitness, stress management through yoga and psychosomatic approaches.
13. Principles and practice of Rehabilitation and outreach services including domiciliary services
14. Role of Government in CBR, inter-sectoral programs and co-ordination. Implementation of the Act.
15. Role of Non-Government organizations in CBR.
16. Community dynamics & scope of community physiotherapy.
17. Physiotherapist as a Master Trainer in CBR.
18. Role of Physiotherapist in disaster management

Advances in Community Physiotherapy – Part II (Women’s Health, Industrial Health and Geriatric Health)

1. Evaluation and theories of aging; Assessment of the elderly;
2. Exercise prescription for the elderly; Psychosocial and safety issues in elderly
3. Geriatric Rehabilitation
4. Holistic physiotherapy for the aged.
5. Physiotherapy in maternal and child health care.
6. Women’s, Health: Women’s reproductive health and health care;
7. Exercise prescription in pre and post- natal stage;
8. Diagnosis and treatment of musculoskeletal pain and dysfunction during pregnancy
9. Diagnosis and treatment of musculoskeletal pain and dysfunction during post menopause.
10. Treatment of Incontinence and Pelvic floor dysfunction; Special problems related to women.
11. Occupational Health, Occupational Hazards, Industrial Hygiene, Vulnerable workers group and labor law;
12. Industrial therapy, Injury prevention and returning the worker to productivity

13. Ergonomics, Principles, Issues related to hand tools, posture, material handling and lifting
14. Prevention of work related Injuries and redesigning workspace, Designing auditory and visual displays for workers; Occupational stress; Environmental Pollution – noise, vibration etc.
15. Physiotherapy role in industry – preventive, intervention, ergonomic and rehabilitative.
16. Recent Advances in **Women's Health, Industrial Health and Geriatric Health** in Community Physiotherapy.
17. Evidence Based Practice in Community Health.

Clinical Posting :

Second year

Gynecology and Obstetric, antenatal postnatal OPD, geriatric OPD,

PHC/CHC in Rural areas, Urban slums, Industry, Old Age Homes, Physical Rehabilitation Centers

Sports Physiotherapy

Advances in Sports Physiotherapy – Part I

- 1) Introduction to Sports sciences & exercise physiology
- 2) Terminology, methodology, rules, equipment, infrastructure of some common sports like Cricket, Football, Basketball, Tennis, Hockey, Track & Field, Aquatic Sports.
- 3) Body composition & analysis
- 4) Principles of Sports Biomechanics & Biomechanics of injury. Physics in sports: Biomechanics Of Running, Throwing, Swimming, Jumping .Advances In Biomechanics assessment: 2D, 3D
- 5) Advanced Cardio Respiratory Exercise Physiology
- 6) Principles of Strength training
- 7) Fitness & strength testing in sports
- 8) Sports specific conditioning
- 9) Sports specific Agility training
- 10) Sports equipments (including Gym equipments)
- 11) Psychological aspects in Sports
- 12) Doping & performance enhancing drugs.
- 13) Protective equipments in Sports including Orthotics Sports Traumatology:
- 14) Introduction to Sports Medicine
- 15) Introduction to Sports Injuries
- 16) Principles of Tissue healing
- 17) Soft tissue injuries of Lower limb (Hip, thigh, Knee, leg, ankle, foot problems & injuries)
- 18) Soft tissue injuries of Upper limb (Shoulder, arm, elbow, forearm, wrist, hand problems & injuries)
- 19) Fractures & Dislocations
- 20) Spinal injuries
- 21) Head injury in sports
- 22) Overuse injuries in Sports
- 23) Specific issues in Females, pediatric & elderly athletes

24) On-field assessment & decision making

25) Injury prevention in sports

26) Pharmacotherapeutics and its relevance with physiotherapy

Advances in Sports Physiotherapy – Part II

1) Principles of Sports Injury Management

2) Management of Sporting Emergencies including emergency procedures, advanced assessment skills, care & management

3) Initial management of Acute sports injuries

4) Pharmacological management of Sports injuries.

5) Fluid Balance & electrolyte disturbance correction

6) Overview of Surgical management (including Arthroscopic surgery) for Sports injuries.

7) Injury & Sports specific management

- 8) Management of overuse injuries in sports
- 9) Electrophysiological Agents in sports rehabilitation
- 10) Rehabilitation of Sports injuries
- 11) Manual Therapy Techniques in Sports Physiotherapy
- 12) Management of special population – paraplegic & physically challenged athletes
- 13) Sports medicine coverage during Sports events
- 14) Traveling with a Sports team as a Physiotherapist.
- 15) Musculoskeletal screening of Athletes – Pre season, In-season & Post –season

CLINICAL POSTING

Second year

Acute Care & Rehabilitation in Sports Injuries : Indoor and Outdoor patients.

