D. Y. Patil Education Society
(Deemed to be University), Kolhapur

Re-accredited by NAAC with 'A' Grade

"Imparting knowledge with Excellence"

D. Y. PATIL COLLEGE OF PHYSIOTHERAPY

KOLHAPUR

Syllabus For

Master of Physiotherapy - I & II

(M. P. Th.)

D. Y. PATIL EDUCATION SOCIETY, KOLHAPUR

(DEEMED TO BE UNIVERSITY)

D. Y. Patil College of Physiotherapy

SYLLABUS FOR

MASTER OF PHYSIOTHERAPY - I & II

(M. P. Th.)

Year of Implementation : 2022-23
Year of Examination : 2023-24

Vision

- To be an excellence in training Physiotherapy students
- To train future leaders for education, research and practice in Physiotherapy using advance techniques
- To promote sustainable development by using various skills and techniques in certain conditions by assuring best teaching and educational centre.
- To seek a leadership role in institutional and community research through developing innovative, multidisciplinary collaborative approaches.

Mission

- The mission of course is to impart in-depth knowledge in various specialties with regards to scope and upliftment in our profession.
- To advance basic knowledge of Physiotherapy by understanding how it works in various diseases, disorders and dysfunction.
- To develop holistic approach in society for success in life.

Aim:

The Master of Physiotherapy (specialty) Programme is directed towards rendering competency in knowledge, skills and research related to advance physiotherapeutic skills especially related to speciality clinical fields to enhance professional Physiotherapy Practice, Education and Research, in line with global standards.

Course outline:

The Masters' degree in Physiotherapy is a two years full time programme consisting of classroom teaching, self academic activities and clinical postings, with self directed evidence based practice and research. In the first year theoretical basis of Physiotherapy is refreshed along with research methodology, biostatistics & teaching technology in the form of workshops. The students have to submit certificate of completion of compulsory workshop related to professional ethics, research methodology and teaching technology by the end of first year. The students are rotated in all areas of clinical expertise including four months of allied postings and remaining months of specialty postings during this period. They are required to choose their study for dissertation and submit a synopsis within the first 6 months. They are required to complete and submit their dissertation as per university notification prior to exam. The learning program includes seminars, journal reviews, case presentations, case discussions and classroom teaching. Some of the clinical postings are provided at community centers in the district in order to offer a wider spectrum of experience. The students are encouraged to attend conferences, workshops to enhance their knowledge during the course of study. University examinations in theory and practicals will be held at the end of first & second year for respective subjects.

Specialties Offered:

1. Musculoskeletal Physiotherapy
2. Orthopedic Manual Therapy
3. Neuro Physiotherapy
4. Cardio –vascular & Respiratory Physiotherapy
5. Community Physiotherapy
6. Sports Physiotherapy

Duration: Master of Physiotherapy (MPTh) (Specialty) shall be full time course with duration of two academic years.

Medium of instruction: English shall be the medium of instruction for all the subjects for studies and for examination of the course. **Faculty/Guide to Student Ratio: - 1: 3**

Eligibility for admission:

1. He/she has passed the Bachelor of Physiotherapy recognized by any Indian University (except distance education and Agriculture University) with pass marks (50%).
2. He/she has to furnish at the time of submission of application form, a certificate of physical fitness from a registered medical practitioner.
3. Admission to Master of Physiotherapy course shall be made as per the rules by the competent authority. Entrance test will be conducted as per the rules by competent authority.

Objectives: At the completion of this course, the student should be able to -

1. Do physical therapy diagnoses using a frame work of ICF that is to identify the impairment of body structure, body function, environmental and personal factors and to address the activity limitations and participations restrictions?
2. Execute all routine physiotherapeutic procedures with clinical reasoning & evidence based practice.
3. Be a prominent member of the multidisciplinary team and treat all the conditions which need physiotherapeutic procedures.
4. Provide adequate knowledge about the treatment procedures and their benefits.
5. Perform independent Physiotherapy assessment and treatment for patients.
6. Plan and implement need based Physiotherapy interventions for all clinical conditions related to respective speciality in acute, chronic cases, critical care, independent practice including health promotion and prevention.
7. Practice in his / her specialty area with advanced knowledge and skills.
8. Take up Physiotherapy teaching assignments under supervision for undergraduate teaching programme.
9. Prepare project proposal with selected research design and interpret the evaluated outcome measures (using sound data processing techniques and statistical methods).

Expectation from the future post-graduate in providing patient care.

1. Course work includes exercise physiology, principles of Physiotherapy practice, electrophysiology and specialties. The student will be skilled in Physical Therapy Diagnosis, clinical reasoning, movement analysis, planning and administration of Physiotherapy treatment as per the speciality, linking evidence to practice, evaluating provision of patient support and being an integral part of inter-professional team.
2. Acquire in-depth knowledge of structure and function of human body related to the respective branch of specialty. Identify movement dysfunction cause thereof principles underlying the use of physiotherapeutic interventions for restoring function towards normalcy.
3. Demonstrate ability to make clinical decision (based on evaluation) regarding Physiotherapy strategy techniques and select appropriate outcome measures based on the comprehensive knowledge of specialty.
4. Demonstrate ability to critically appraise recent physiotherapeutic and related literature from journals & adopt diagnostic & therapeutic procedures based on the evidence.
5. The student will also perform independent research within the department and help the department and the team for treatment planning of the patient.
6. Physiotherapy post-graduate is encouraged to pursue further qualification to attain senior position in the professional field; also to keep abreast with the advances and new technology the professional should opt for continuous professional education credits offered by national and international institutes.
7. Employment opportunities can be found in hospitals in both private and public sectors as well as in independent Physiotherapy clinics and as well as teaching institutes.
8. Demonstrate an expertise in using evidence-based skill in the management of disorders including movement dysfunction in concerned specialty.
9. Demonstrate an expertise in health promotion, early identification and intervention for quality of life & restoration of function.
10. Planning and implementation of treatment programme adequately and appropriately for all clinical conditions, common as well as rare, related to respective specialty, in acute and chronic stage, in intensive care, IPD, OPD and institutional care, independent practice, on fields of sports and in community and during disaster situations.
11. Demonstrate proficiency in creating awareness, using newer technology, at various levels in community for healthcare & professional awareness.
12. Demonstrate leadership, managerial, administrative & communication skills.
13. Demonstrate the knowledge of legislation applicable to compensation for functional disability welfare schemes & rights of the disabled, laws related to industrial workers & disabled & appropriate certification.
14. Demonstrate proficiency in classroom and clinical teaching using newer and appropriate technology.
15. Follow the ethical code of conduct and respect law and legislations

Methods of training:

The training of postgraduate for M.P.Th degree shall be on a full time pattern with graded responsibilities towards physical therapy diagnosis/functional diagnosis and in the management and treatment of patients entrusted to his / her care and completion of research project. The participation of all the students in all facets of educational process and patient care is essential. Every candidate should perform self directed evidence based autonomous practice and take part in seminars, group discussions, clinical rounds, case demonstrations, clinics, journal review meetings, CME/CPTE, workshops & Conferences. Every candidate should be required to participate in the teaching and training programs of undergraduate students. Training should include involvement in Simulation skill lab and research studies.

Attendance: 80% attendance is mandatory for each year. The student needs to fulfill minimum of 7 hours 30 minutes duty six days a week.

Vacation or preparatory leaves: Full-time post graduate students should be able to take up maximum upto 10 working days of vacation or preparatory leave or sick leave during the academic year, over and above statutory holidays declared by the institute provided that it

- Does not compromise the academic progress of a student's studies;
- Does not compromise the progress of the research; and
- Is agreed upon by the student and his/her supervisor or guide well in advance (usually one month).
- Leave should be taken at times that do not interfere with students' course work and their research responsibilities within the department.
- Professional leave to attend conference and university directed workshops can be granted for maximum of three days at a time.

Assessment:

University Exams will be conducted in theory and practical separately in the 1st & 2nd Year.

Eligibility for appearing for Exams

The candidate should have completed Research Methodology and biostatistics, Ethics, Administration and Professional Practice and Teaching technology workshop by the end of first year. The candidate should have 80% attendance and completed the dissertation work.

Submission of synopsis: Every candidate shall submit to the Centre of Interdisciplinary Research of the University in the prescribed Proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course or on or before the dates notified by the University. The synopsis shall be sent through the proper channel after approval of institutional ethics committee. Such synopsis will be reviewed and the dissertation topic will be registered by the University.

Dissertation: Every candidate presenting himself / herself for the examination for the first time shall submit, at least four months prior to the university examination, copies of a dissertation not less than 2500 words consisting of the result of his/her own study carried out under the guidance of a recognized post graduate teacher together with review of recent advances pertinent to that theme. The acceptance of the dissertation by the examiners shall be a condition precedent to the admission of the candidate for the written & clinical (practical) examination. Dissertation should be based on the specialty subject.

A candidate who has submitted his/her dissertation once will not be required to submit a fresh dissertation if he / she re-appears for the examination in the same branch on a subsequent occasion, provided that the examiners have accepted the dissertation.

The Degree of Master of Physiotherapy (speciality) shall not be conferred upon a candidate unless he / she has passed in the written and clinical examination (including viva voce) and the dissertation prescribed for the examination in accordance with the provision.

Log Book:

Every candidate shall maintain a log book and record his/her participation in the clinical postings and programmes conducted by the department. Record in the log book will contain report of attendance and documentation as per University guidelines. Log book as duly certified as "Acceptable & Satisfactory" and signed by Head of department, Head of Institution and Guide should be submitted to the university with the examination form or as directed by the university.

Progress Report: The attendance and progress report scrutinized and certified by the Head of the Department and Guide to be submitted to the Head of Institute at every six months from the commencement of academic term after the cut off dates from admission.

Clinical Rotation:

The first M.P.Th student is expected to complete compulsory rotation wise posting in clinical areas other than chosen speciality along with speciality posting. 2nd M.P.Th students shall carry out data collection of Dissertation in the area of specialty posting. Eighty percent (80%) attendance is required for minimum of 7 hours & 30 minutes a day for 6 days of week.

Scheduled outline shall be maintained as minimum standard for M.P.Th program with higher order of teaching and learning process. The student is expected to revise the basic requirement of undergraduate syllabus of Physiotherapy course in the form of self directed learning.

FIRST YEAR- M.PTH

PROGRAM OUTCOMES:

1. **Graduate Attributes: Medical and Scientific knowledge**

   PO1: Ability to acquire in-depth knowledge of structure and function of human body related to respective branch of specialty and application of advanced intervention with Physiotherapeutic skills.

2. **Graduate Attributes: Patient care and problem solving abilities**

   PO2: Plan implement and demonstrate clinical based Physiotherapy interventions for all clinical conditions related to respective specialty in acute, chronic cases, critical care, independent practice and select appropriate outcome measures including health promotion and prevention.

3. **Graduate attributes: Communication skills**

   PO3: Develop and expand effective interpersonal and intrapersonal communication skill, self confidence and understand the barriers for effective communication and learning.

4. **Graduate attributes: Research aptitude**

   PO4: Extend the ability acquired knowledge to conduct research activities, perform independent research of different specialty and help to contribute treatment planning of the patients for betterment of society.

5. **Graduate attributes: Professional excellence and responsibility**

   PO5: Understand moral value, professional ethics, accountability, support diversity and equity towards patient and colleagues. Develop good behavioural skills with confidentiality and humanitarian approach, maintaining the respect and privacy of patient and follow the ethical code of conduct.

6. **Graduate attributes: Leader and member of health care team & system.**

   PO6: Develop self discipline and be a prominent member of multidisciplinary team and treat all the conditions which need physiotherapeutic skills. Develop leadership skills, time management, logical reasoning, and values in creating awareness, using newer technology, at various communities for health care and professional awareness.

7. **Graduate attributes: Societal Responsibilities.**

   PO7: Understanding about society's and patients needs in terms of functions, health and wellness, to improve multicultural competency among professional and general public. Develop knowledge about impact of Physiotherapy skills on society and a character with good moral values, human values, good social behaviour, gratitude, ethics, responsibility, confidence and critical thinking.

8. **Graduate attributes: Awareness towards sustainability and environment**

   PO8: Able to contribute in sustainable development to achieve the globally sustainable development goal, ability to conserve natural resources and protect global eco system to support health and well being. Ensure healthy life and promote wellbeing for all ages.

9. **Graduate attributes: Lifelong learner**

   PO9: Demonstrate ability to acquire new knowledge skill and reflect upon their experience to enhance self awareness, personal development, professional growth and implement the information for patient care.

Research Methodology and Biostatistics

CO1 – Ability to acquire knowledge of research methodology in terms of types research study design, bias, sampling design, measurements, outcome measures, research methods, evaluating evidence, evaluating published research, and use of clinical pathways, clinical practice.
CO2 – Acquire the knowledge about statistics, measuring variability, comparison of group, analysis of variance, multiple comparison tests, correlation, non-parametric tests, regression, analysis of frequency, statistical measure of reliability, power analysis, and epidemiological measures.
CO3 – Able to write and document research papers, books, thesis, role of author, structure, style and contents, style manual, different steps in report writing, preparing abstract significance of report writing.

Basic Sciences and Physiotherapeutic Paper – II

CO1 – Understand normal and applied biomechanics of tissues, structure of body system, applied and altered physiology of function in body system, clinical kinesiology of gait and posture, ergonomics approach, work space, environmental modification, movement analysis, laboratory evaluation of kinetics and kinematics, neurophysiology of pain, mechanism and processing of pain and intervention of pain.
CO2 – Acquire and gain the knowledge of energy transfer and expenditure response and adaptations of various system to exercise and training, environmental in influence, body composition, nutrition & caloric balance, physiological variations with exercise & training, exercise programming fatigue assessment and management, sports medicine, nutritional requirements and supplementation in various diseases, benefits of exercise in various diseases.
CO3 – Acquire the knowledge in clinical decision making neuromuscular electrical stimulation muscles plasticity, electrical stimulation muscles plasticity, electrophysiolgical testing and clinical interpretation, EMG, biofeedback

Advance Physiotherapeutic and evidence based practice Paper – III

CO1 – Ability to perform & clinical examination in general and detection of movement dysfunction, principles of pathological investigation and imaging technique with interpretation, Evaluation methods, special test in various disorders, motor control assessment, Anthropometric measurements physical disability evaluation of gait and posture.
CO2 – Ability to gain the knowledge about assessment and management of pain, geriatrics health investigations, screening for referral in Physiotherapy, differential diagnosis, decision making, physical assessment of screening tool, introduction to interviewing process, ICF, assessing functioning and quality of life.
CO3 – Ability to acquire knowledge about steps in evidence based practice, performing a literature search critical appraisal, shared decision making linking evidence to practice.
CO4 – Ability to acquire knowledge about maternal and child care in Physiotherapy various neurological approaches, pharmacodynamic advanced theories and application of exercises, advanced electrotherapeutic modalities, ergonomics, manual therapy techniques, stress management, onco rehabilitation, disaster management, Yoga, obstetrics and gynecological disorders, cardiac and pulmonary rehabilitation, community Physiotherapy, Sports Rehabilitation.

Syllabus Content from A to C (compulsory Workshops to be completed by the end of first M.P.Th) would be common for all specialities. The Post graduate Physiotherapy professional is expected to work and contribute in the acute care unit, clinical set-up, out -patient, community and field work.

A. Professional Practice, Ethics and Administration:- Attendance and certificate of participation is to be submitted along with the synopsis as a mandatory requirement. The workshop component should be as under- (History, Laws, Ethics, Administration, Professional practice)

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, organization, budget, policy procedures and quality assurance. Setting up a Physiotherapy department.
5. Physiotherapist as a leader and manager.
6. Scope of Physiotherapy in Hospital, Community & Industry and Future challenges in Physiotherapy.

7. Roles of the physiotherapist as per WCPT/WHO
8. Standards for practice for physiotherapist and the criteria as competency statements
9. 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.
10. Professionalism
11. Align Physiotherapy objectives with the goals of national health

B.Teaching Technology:

Students would compulsory undergo training in teaching technology as approved by University. The certificate of attendance and participation should be submitted to the university along with examination form. Students are required to submit in the log book number of teaching sessions, practical demonstration carried out under supervision. Pedagogy, Kirk- Patrick model, Theories of adult learning, Formal and non-formal – Philosophy of health education, Curricular Planning. Teaching - Learning methods, Interactive Learning, methods to facilitate learning, use of audio-visual aids, clinical teaching, methods of assessment of student learning. Post graduate students should be trained in oral presentation and preparation of posters.

C. RESEARCH METHODOLOGY

Paper – I RESEARCH METHODOLOGY AND BIOSTATISTICS:

Total Hours – 100 (Research Methodology – 60 + Biostatistics – 40)

To be completed in the form of a module in the first four months after commencement of academic year. Attendance and certificate of participation is to be submitted along with the synopsis as a mandatory requirement.

RESEARCH METHODOLOGY:

1. Introduction to research
2. Types of research
3. Defining a research question
4. Qualitative study designs: 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.
   Students should be encouraged for writing a narrative review or case reports and preparing manuscripts.

Paper – II – Basic Sciences and Physiotherapeutic:

Total hours – 350
Practical/ Clinical Hours: 150
Teaching Hours: 200

a. Applied Biomechanics and Clinical Kinesiology – 75 hours
b. Exercise Physiology and Nutrition – 50 hours
c. Electrophysiology and Electro diagnosis 75 hours

Applied Biomechanics & Clinical Kinesiology.

1. Normal and applied Biomechanics of Tissues and structures of the body systems (includes biomechanics of musculoskeletal system).
2. Applied and altered physiology of functions of the body system
3. Clinical kinesiology of posture and gait
4. Ergonomic Approach to lifting and handling, transfer techniques, workspace and environment modification, increasing accessibility, capacity and performance
5. Movement analysis
6. Laboratory evaluation of kinetics and kinematics
7. Neurophysiology of Pain, Mechanisms of Referred Visceral Pain, Central mechanism and processing of Pain, Multi-segmental Innervations

To be completed in the form of symposium, tutorial, lab work and clinical practice

Exercise Physiology & Nutrition:

1. Energy, Energy Transfer and Energy Expenditure at rest, activity and disease
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. Physiological variations with exercise and training.
7. Components of exercise programming.
8. Fatigue assessment and scientific organization of work-rest regimes to control fatigue.
9. Introduction to Sports sciences and sports medicine
10. Psychological aspects of exercise
11. Nutritional requirements and supplementation in health and disease.
12. Benefits of exercise in health and disease
13. Exercise Advocacy for common population

To be completed in the form of symposium, tutorial, lab work and clinical practice. Students are expected to maintain personal level of fitness.

Electrophysiology and electro diagnosis:

1. Clinical decision making in electrotherapeutics -characteristics and components of Electro therapeutic stimulation systems and Electro Physiological assessment devices.
2. Instrumentation for neuromuscular electrical stimulation.
3. Muscles plasticity in response to electrical stimulation.
4. Electrical stimulation and its effects on various systems.
5. Clinical Electro physiological testing and clinical interpretation
6. Use of electro diagnosis in prognostification
7. EMG and Biofeedback

To be completed in the form of symposium, tutorial, exercise lab and clinical practice.

Paper – III – Advance Physiotherapeutic and Evidence Based Practice

Total Hours – 450
Practical/ Clinical Hours: 150
Teaching Hours: 30

- **a.** Functional Diagnosis and clinical reasoning – 135 hours
- **b.** Evidence board practice – 30 hours
- **c.** Advanced physiotherapeutic approaches – 135 hours

Physiotherapy/Functional Diagnosis & Clinical reasoning:

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. Evaluation of health related fitness and performance based measurements.
6. Evaluation Methods, Special tests used in Musculoskeletal, Neurological and Cardiopulmonary disorders.
7. Biophysical measurements, Physiotherapy modalities, techniques and approaches.
8. Aids and appliances, adaptive functional devices to improve movement dysfunction.
9. Physical disability evaluation and disability diagnosis.
10. Evaluation of Posture and Gait abnormalities with reasoning
11. Pain (assessment, modulation and management of pain)
12. Assessment of Pain and Symptoms: Sources of Pain, Types of Pain, Comparison of Systemic Versus Musculoskeletal Pain, Patterns, Characteristics of Viscerogenic Pain, Screening for Emotional and Psychological Overlay, Pain modulation using electrotherapy
    Assessment and clinical decision making in elderly
13. Basic investigations to identify system abnormalities
14. Identification of scope of practice and referral
15. Introduction to Screening for Referral in Physiotherapy
16. Using the Screening Model, Reasons to Screen, Screenings and Surveillance, Diagnosis by the Physiotherapist, Differential Diagnosis versus Screening
17. Direct Access, Red flags and Physician referral.
18. Decision-Making Process Case Examples and Case Studies.
19. Physical assessment as a screening tool to identify the source of symptoms :General systems screening and examination, including endocrine, metabolic, immunologic systems, Screening for Systemic Versus Psychogenic Symptoms

20. Introduction to the interviewing process: Concepts in Communication ,Cultural Competence, The Screening Interview ,Subjective Examination , Core Interview ,Hospital Inpatient Information.
21. Integrating ICF into clinical practice
22. Assessing functioning and Quality of life

The above to be completed in the form of clinical skills during case presentation, and clinical posting, laboratory work

Evidence based Practice:

1. Sacketts -steps in evidence based practice- theory and practicals.
2. Performing a literature search
3. Critically appraising evidence, RCT, Systematic review, other studies
4. Shared decision making
5. Linking evidence to practice

The above to be completed in the form of clinical skills during case presentation, clinical practice and critical appraisal and review of literature

Advanced Physiotherapeutic approaches:

1. Maternal and child care in general Physiotherapy.
2. Principles of Neurological approaches, Theories of motor control and motor learning.
3. Pharmacodynamics and activity performance.
4. Advanced theories and application of Therapeutic exercise.
5. Application of advanced electrotherapy modalities & techniques on patients, monitoring of dosages and winding up procedure. Safety considerations in electrotherapy
6. Ergonomic consideration during Physiotherapy.
7. Preparing Plan of care to achieve functioning , discharge, social participation
8. Physiotherapy for health and stress management.
9. Manual therapy, soft tissue mobilizations and its application
10. Physiotherapy perspective in onco rehab, Disaster management and emergency, Plastic Surgery and burns, common conditions of skin, Obstetric and Gynecological Disorders.
11. CPR, monitoring systems and defibrillators and artificial respirators.
12. Integration of Yoga in Physiotherapy for Health promotion and Dysfunction
13. Community practice in Physiotherapy
14. Alternative therapies

The student is expected to review evidences, Guidelines, Statements of various national and international committees /societies and bodies.

Course Structure:

1st Year M.P.Th Common Subjects to all specialties				
Sr. No	**Subject**	**Teaching hours**		
		Theory	**Practical / Clinical**	**Total**
1	Paper – I Research Methodology And Biostatistics	100 marks (60 Research Methodology + 40 Biostatics)	-	100
2	Paper – II Basic Sciences & Physio therapeutics **a. Applied Biomechanics and Clinical Kinesiology – 75 hours** **b. Exercise Physiology and Nutrition – 50 hours** **c. Electrophysiology and Electro diagnosis - 75 hours**	200	150	350
3	Paper – III Advanced Physio therapeutics & evidence Based Practice **a. Functional Diagnosis and clinical reasoning – 135 hours** **b. Evidence board practice – 30 hours** **c. Advanced physiotherapeutic approaches – 135 hours**	300	150	450
4	Clinical Training	-	550	550
5	Seminar Presentation	-	-	200
6	Journal Presentation	-	-	150
Total Hours				**1800**

1st YEAR M.P.Th UNIVERSITY EXAMINATION PATTERN

SUBJECT – PAPER I RESEARCH METHODOLOGY & BIOSTATISTICS

Date - **Total Marks – 100**

Time - **Duration – 3 hrs**

a. **Research Methodology**
b. **Bio Statistics**

Q. I LONG ESSAY **(2× 20 = 40)**

(Question no 1 must be from Research Methodology)

(Question no 2 must be from Bio Statistics)

1.

2.

Q. II SHORT ESSAY **(6× 10 = 60)**

(Question no 1, 2, 3 must be from Research Methodology)

(Question no 4, 5, 6 must be from Bio Statistics)

1.

2.

3.

4.

5.

6.

1st YEAR M.P.Th UNIVERSITY EXAMINATION PATTERN
SUBJECT – PAPER II BASIC SCIENCES & PHYSIOTHERAPEUTIC

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

a) **Applied Biomechanics & Clinical Kinesiology**
b) **Exercise Physiology & Nutrition**
c) **Electrophysiology & Electro diagnosis**

Q. I LONG ESSAY **(2× 20 = 40)**
(Question no 1 must be from Applied Biomechanics & Clinical Kinesiology)
(Question no 2 must be from Electrophysiology & Electro diagnosis)

1.

2.

Q. II SHORT ESSAY **(6× 10 = 60)**
(Question no 1, 2 must be from Applied Biomechanics & Clinical Kinesiology)
(Question no 3, 4 must be from Exercise Physiology & Nutrition)
(Question no 5, 6 must be from Electrophysiology & Electro diagnosis)

1.

2.

3.

4.

5.

6.

1st YEAR M.P.Th UNIVERSITY EXAMINATION PATTERN

SUBJECT – PAPER III ADVANCE PHYSIOTHERPEUTIC & EVIDENCE BASED PRACTICES

Date - **Total Marks – 100**

Time - **Duration – 3 hrs**

a) **Physiotherapy / Functional Diagnosis & Clinical reasoning**
b) **Evidence based practice**
c) **Advanced physiotherapeutic approaches**

Q. I LONG ESSAY **(2× 20 = 40)**

(Question no 1 must be from a) Physiotherapy / Functional Diagnosis & Clinical reasoning

(Question no 2 must be from b) advanced physiotherapeutic approaches

1.

2.

Q. II SHORT ESSAY **(6× 10 = 60)**

(Question no 1, 2 must be from a) Physiotherapy /Functional Diagnosis & Clinical reasoning.

(Question no 3, 4 must be from b) Evidence based practice

(Question no 5, 6 must be from c) advanced physiotherapeutic approaches

1.

2.

3.

4.

5.

6.

Scheme of Examination

1st Year M.P.Th Common Subjects to all specialties								
	Theory Max	**Theory Internal Assessment Max**	**Total Theory +IA Marks**	**Theory Total**	**Practical + Viva Voice Max**	**Practical Internal Assessment Max**	**Total Practical + IA Marks**	**Grand Total**
Paper-I Research Methodology And Biostatistics	100	50	MAX 150 MIN 75	MAX 450	250	50	MAX 300 MIN 150	750
Paper-II Basic Science & Physiotherapeutics	100	50	MAX 150 MIN 75					
Paper-III Advanced Physio therapeutics & evidence Based Practice	100	50	MAX 150 MIN 75					

Standard of Passing
1st Year M.P.Th

1. Minimum pass marks shall be 50 % in each of the theory and practical papers separately
2. A Candidate must have minimum of 80 % attendance (irrespective of the kind of absence) in theory and practical in each subject for appearing for University examination.
3. A Candidate must have 80 % Attendance in each of the practical areas before award of degree,
4. A Candidate has to pass in theory and practical exam separately in each of the paper
5. If candidate fails in either theory and practical paper he/she has to re-appear for all the papers (Theory and practical)
6. M.P.Th candidate should clear supplementary examination for appearing 2nd M.P.Th final examination.
7. Maximum 2 attempts are allowed to appear along with 1 mercy attempts.
8. Should secure at least 50% of total marks assigned for internal assessment in particular subject in order to be eligible to appear in the University examination of that subject.
9. Should secure at least 50% of total marks in college exam in subject for which University exam not recommended.
10. Declaration of class will be as per University norms.
11. A candidate pursuing Master of Physiotherapy course shall study in the concerned department of the institution for entire period as a fulltime student. Candidates are not permitted to work as an employee in any laboratory/hospital/ clinic/college etc., while studying the course. Candidates are not to join any other full time courses of study or appear for any other examination conducted by this university or any other university in India or abroad during the period of registration.
12. Post graduate students shall be trained to acquire responsibilities in the management of patients with ethical standards of practice. They will be made to actively involve themselves in seminars, case presentations, presentation of scientific papers from journal and clinical discussions with reflective practice. Every candidate will be given training in teaching of undergraduate students. They are specially trained to perform research activities in their Speciality.
13. A written examination consisting of five theory papers, each paper has three hours duration & each paper carrying 100 marks.

14. A Viva-Voice examination of both 1st and 2nd year M.P.Th consisting 80 (50+30) that is aimed at examining the depth of knowledge, logical reasoning, confidence & oral communication skills with special emphasis on dissertation work. The marks of Viva-Voce examination shall be included in the clinical examination to calculate the percentage and declaration of results.

15. A clinical examination of first year M.P.Th consisting of 200 marks and second year M.P.Th consisting of 170 marks with total of 370 marks that is aimed at examining clinical skills and competency of the candidates for under taking independent work.

16. A written examination consisting of five theory papers, each paper has three hours duration & each paper carrying 100 marks.

17. The examination for M.P.Th course shall be held at the end of every academic year. The university shall conduct two examinations in the year such as.

i. Regular

ii. Supplementary at an interval of six months between two examinations. Not more than two exams shall be conducted in the academic year. To be eligible to write the second year examination the candidate should have cleared the first year examination with 50% of mark.

18. Practical Examination:

1st Year MPTh Practical / Clinical - 250 Marks

Note: All cases for clinical examination should be on patients & not on models.

Day - 1

1. Case (1) – 1 x 100 = 100 Marks (SPECIALIZATION CASE)
2. Case (2) – 1x 100 = 100 Marks (NON SPECIALIZATION CASE)

Viva – Voce - 50 Marks

SECOND YEAR- M.PTH

PROGRAM OUTCOMES:

1. **Graduate Attributes: Medical and Scientific knowledge**

   PO1: Ability to acquire in-depth knowledge of structure and function of human body related to respective branch of specialty and application of advanced intervention with physiotherapeutic skills.
2. **Graduate Attributes: Patient care and problem solving abilities**

   PO2: Plan implement and demonstrate clinical based Physiotherapy interventions for all clinical conditions related to respective specialty in acute, chronic cases, critical care, independent practice and select appropriate outcome measures including health promotion and prevention.
3. **Graduate attributes: Communication skills**

   PO3: Develop and expand effective interpersonal and intrapersonal communication skill, self confidence and understand the barriers for effective communication and learning.
4. **Graduate attributes: Research aptitude**

   PO4: Extend the ability acquired knowledge to conduct research activities, perform independent research of different specialty and help to contribute treatment planning of the patients for betterment of society.
5. **Graduate attributes: Professional excellence and responsibility**

   PO5: Understand moral value, professional ethics, accountability, support diversity and equity towards patient and colleagues. Develop good behavioral skills with confidentiality and humanitarian approach, maintaining the respect and privacy of patient and follow the ethical code of conduct.
6. **Graduate attributes: Leader and member of health care team& system.**

   PO6: Develop self discipline and be a prominent member of multidisciplinary team and treat all the conditions which need physiotherapeutic skills. Develop leadership skills, time management, logical reasoning, and values in creating awareness, using newer technology, at various communities for health care and professional awareness.

7. **Graduate attributes: Societal Responsibilities.**

   PO7: Understanding about society's and patients needs in terms of functions, health and wellness, to improve multicultural competency among professional and general public. Develop knowledge about impact of Physiotherapy skills on society and a character with good moral values, human values, good social behavior, gratitude, ethics, responsibility, confidence and critical thinking.

8. **Graduate attributes: Awareness towards sustainability and environment**

   PO8: Able to contribute in sustainable development to achieve the globally sustainable development goal, ability to conserve natural resources and protect global eco system to support health and well being. Ensure healthy life and promote wellbeing for all ages.

9. **Graduate attributes: Lifelong learner**

   PO9: Demonstrate ability to acquire new knowledge skill and reflect upon their experience to enhance self awareness, personal development, professional growth and implement the information for patient care.

Course Outcome
Musculoskeletal Physiotherapy

Paper – I Advances in musculoskeletal Physiotherapy Part – I

CO1 – Ability to gain the knowledge about anatomical, physiological, biomechanical basis for assessment, pathophysiological and pathomechanical basis for management of movement dysfunction, skills in evaluation and management, functional diagnosis, and outcome measures of all pediatric, adult and geriatric dysfunction of cervical spine, thoracic spine, shoulder girdle and upper extremity.

CO2 – Ability to gain the knowledge in recent advances of pain evaluation and management, manual therapy, musculoskeletal injuries of sports, industrial health ergonomics in musculoskeletal dysfunctions of cervical spine thoracic spine shoulder girdle and upper extremity.

CO3 – Ability to acquire the knowledge of application of yogasanas, evidence based practice, disability evaluation, social care, pharmacotherapeutics, assessment, clinical reasoning and management of impairments clinical decision for lower quadrant function in presence of upper quadrant of dysfunction,

Paper – II Advances in musculoskeletal Physiotherapy Part – II

CO1 – Ability to gain the knowledge about anatomical, physiological, biomechanical basis for assessment, pathophysiological and pathomechanical basis for management of movement dysfunction, skills in evaluation and management, functional diagnosis, and outcome measures of all pediatric, adult and geriatric dysfunction of lumbar spine, sacrum, pelvis, lower extremities.

CO2 – Ability to gain the knowledge in recent advances of pain evaluation and management, manual therapy, musculoskeletal injuries of sports, industrial health ergonomics in musculoskeletal dysfunctions of cervical spine lumbar spine, sacrum, pelvis, lower extremities.

CO3 – Ability to acquire the knowledge of application of yogasanas, evidence based practice, disability evaluation, social care, pharmacotherapeutics, assessment, clinical reasoning and management of impairments, clinical decision for upper quadrant function in presence of lower quadrant of dysfunction

Orthopedics Manual Therapy

Paper – I Advances in Orthopedics Manual Therapy Part – I

CO1 – Ability to gain the knowledge of concepts of manual therapy, mobilization, manipulation, biomechanics of different issues, exercise planning and exercise prescription management of pain classification manual therapy and other related therapies.

CO2 – Ability to acquire the knowledge of clinical applications of manual therapies in the treatment of peripheral segments and spinal and cranial components, manual therapy in occupational dysfunction, pilates adjunct therapies to manual therapy, functional movements techniques, other therapies to related to manual therapy.

Orthopaedics Manual Therapy

Paper – II Advances in Orthopaedics Manual Therapy Part – II

CO1 – Ability to gain the knowledge of evidence based practice, recent advances manual therapy in management of pain, orthopaedic conditions (medical and surgical), musculoskeletal disorders, spinal disorders, arthritis.

CO2 – Ability to gain the knowledge of current trends in taping, advances in kinematics and kinetics, sport injuries, metabolic hormonal neoplastic conditions bones and joint, rehabilitation of musculoskeletal disorders, advances in orthotics & prosthetics, work place ergonomics current trends in orthopaedic implants and advances amputations.

Neuro Physiotherapy

Paper – I Advances in Neuro Physiotherapy Part – I

CO1 – Acquire knowledge about examination of gross and fine motor development skills, posture, gait, functional performance, developmental skills in neurologically disabled child, congenital and acquired disorders, advanced skills and Physiotherapy approaches in pediatric neuropathological, neuropsychological and neurosurgical conditions based on principles, skills of handling in various approaches and management.

CO2 – Ability to understand of clinical decision making and evidence based practice for assessment and treatment program theories of motor control and learning perceptuomotor and sensory issue in children, early identification and intervention skill of pediatric neurological disorders, Role of Physiotherapy in pediatric neurological conditions and neonatal intensive care unit.

CO3 – Ability to gain knowledge about social integration of child in school and community, assessment, clinical reasoning and management of integumentary and other system impairments due to neuromusculoskeletal dysfunction, pharmacotherapeutics in neurological conditions and its relevance in Physiotherapy

Neuro Physiotherapy

Paper – II Advances in Neuro Physiotherapy Part – II

CO1 – Ability to acquire knowledge of neurodevelopment and neurphysiological approaches, advance skills in assessment, various outcome measures in adult neuro-pathological, neuropsychological, neurosurgical, geriatric neurological conditions.

CO2 – Acquire the knowledge about clinical decision making and evidence based practice for effective assessment and treatment, advanced neuro-therapeutic skills for management and role of Physiotherapy in neurological conditions.

CO3 – Ability to understand the facilitation, prevention and coping up with age related complication, social integration in community, pharmacotherapeutics in neurological conditions and its relevance in Physiotherapy

Cardio –vascular & Respiratory Physiotherapy

Paper – I Advances in Cardiovascular and Respiratory Physiotherapy Part – I

CO1 – To study structural functional and biomechanical basis for assessment and management of dysfunction of the respiratory system and circulatory system.

CO2 – Ability to understand clinical reasoning in physiotherapeutic evaluation and management of all neonatal, pediatric, adult and geriatric dysfunction of respiratory system.

CO3 – To demonstrate clinical decision making and evidence based practice in physiotherapeutic evaluation and management of all medical, surgical and traumatic disorders in clinical care ICU setting.

Cardio –vascular & Respiratory Physiotherapy

Paper – II Advances in Cardiovascular and Respiratory Physiotherapy Part – II

CO1 – To study structural, functional and biomechanical assessment, management dysfunction of circulatory system including peripheral vanes and mediastinum and its physiotherapeutic evaluation and management

CO2 – Ability to understand advances in functional diagnostic procedure and various outcome measures relevant to assess intervention to dysfunction of cardiovascular and peripheral vascular system.

CO3 – To demonstrate clinical decision making skills in physiotherapeutic evaluation, management of lifestyle disorders, cardio-respiratory fitness testing and training.

Community Physiotherapy

Paper – I Advances in Community Physiotherapy – Part – I

CO1 – Ability to gain the knowledge of health, healthcare, fitness, fitness training, health promotion, concepts of rehabilitation, institutional based rehabilitation services, multi-disciplinary approaches national health delivery system, role of national institutes, district rehabilitation centre and primary health centre.

CO2 – Acquire the knowledge about public awareness, national and united nations legislations for person with disability, early detection and intervention, appropriate technology, assistive device used for stability and mobility, home exercise programs for various classified disabilities.

CO3 – Acquire and gain the knowledge about physical fitness, stress management, yoga, psychosomatic approaches, principles and practice of rehabilitation and outreach services including domiciliary services, Role of Governmental and non-governmental organization in CBR, inter-sectoral programs, implementation of act, Role of physiotherapist as master trainer and in disaster management.

Community Physiotherapy

Paper – II Advances in Community Physiotherapy – Part – II

CO1 – Ability to acquire knowledge about geriatric rehabilitation, theories of ageing, psychological and safety issues evaluation, assessment, exercise prescription and holistic Physiotherapy, recent advances in elderly geriatric health.

CO2 – Acquire and gain knowledge about Physiotherapy in maternal and child health care women's reproductive health, exercise prescription in pre and post natal stage, Diagnose and treatment during pregnancy and post menopause with recent advances treatment of incontinence and pelvic floor dysfunction.

CO3 – Ability to gain knowledge of industrial health, occupational hazards, ergonomics injury prevention, prevention of work related injuries, occupational stress, physiotherapist role and recent advance with evidence based practices in industrial health.

Sports Physiotherapy

Paper – I Advances in Sports Physiotherapy – Part I

CO1 – To study sports science, exercise physiology principles of sports biomechanics injury recent advances in biomechanics assessment 2D, 3D sports specific conditioning, agility strength, training.

CO2 – Ability to understand Doping, performance enhancing drugs, orthotics sports grammatology fitness & Strength testing in sports.

CO3 – To demonstrate on filed assessment and decision making related to sports injuries specifically in females, pediatric and elderly athletes.

Sports Physiotherapy

Paper – II Advances in Sports Physiotherapy – Part II

CO1 – To Study principles of sports injury management, sporting emergencies, advanced assessment skills, care and management.

CO2 – Ability to understand sports injuries management including arthroscopic surgery manual therapy techniques in sports Physiotherapy.

CO3 – To demonstrate rehabilitation sports injuries, musculoskeletal screening of Athletes-pre season, in-season and post-season injury and sports specific management.

Specialty Syllabus
Residency in Specialty subjects

Musculoskeletal Physiotherapy
Paper – I Advances in Musculoskeletal Physiotherapy – (Part I)
Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

(Musculoskeletal Dysfunctions of the Upper Quadrant)

(Upper Quadrant includes 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

Paper – II Advances in Musculoskeletal Physiotherapy

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

(Part II) (Musculoskeletal 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. 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 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

Acute care & Rehabilitation in Musculoskeletal dysfunctions: Indoor and Outdoor patients

Orthopedic Manual Therapy

Paper – I Advances in Orthopaedic Manual Therapy – (Part I)

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

1		Introduction to Manual Therapy: History of Manual Therapy, Concept of manual therapy, mobilization and manipulation, concept of barriers and movement and concept of movement science.
2		Biomechanics of different tissues and activities : Muscle, ligaments, tendons, fascia, articular cartilage, joints, gait, spinal cord and peripheral nerves, vessels and day to day activities.
3		Exercise planning and Exercise Prescription
4		Pain : concept, theories, cause presentations, assessments, differential diagnosis and principles of management.
5		Classification of manual therapy and other related therapies : Philosophies, historical aspects, types/classification, physiological basis of manual therapy, principles, indications & contraindications of various manual therapy techniques such as : Maitland, Mulligan, Mckenzie, Cyriax, Soft tissue therapies, Myofascial release therapy, Stretching, Positional release therapy or counter strain therapy, Muscle energy technique, neuromuscular technique and etc. (Definition/concept, types, principles of assessment and techniques, indications, contraindications etc)
6		General principles of assessment and diagnosis in manual medicine or therapy
7		Clinical Applications of Manual Therapies in the treatment of peripheral & spinal and cranial component.
i.		Peripheral Segments mobilization and manipulations (Traumatic and nontraumatic musculoskeletal disorders):
a		Shoulder joint and shoulder girdle components.
b		Elbow and forearm components.
c		Wrist and hand components
d		Hip, knee, ankle and toot components.
e		Temporomandibular components./
ii.		Spine and cranium. (Traumatic and nontraumatic musculoskeletal disorders)
a		Spinal components in general
b		Cervical spine components.
c		Thoracic spine and thorax components
d		Lumbo sacral spine components
e		S I joint components
f		Lumbo pelvic hip complex
g		Cranium mobilization/manipulations
8	15	Manual Therapy in Occupational Dysfunctions : Principles of Assessement and diagnosis of dysfunctions, selection and application of techniques
9	10	Pilates-school of thought
10	5	Home and self-help programs in Manual Therapy
11	20	Adjunct Therapies to Manual Therapy : Relaxation, Posture Programmes, Orthotics, Neurombilization
12		Biofeedback, Electrotherapeutics, Taping (Kinesio, Rigid, Mulligans etc.)Orthotics, Neuromobilization
13	10	Functional movements and functional techniques : Concepts assessment and treatments, Coupled Movements & Combined movements-Assessment & Treatment.
14	18	Other therapies related to Manual Therapy such as Osteopathy, Chiropractice etc. Integrated approach in Manual Therapy.

Paper – II Advances in Orthopaedic Manual Therapy – (Part II)
Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

1	EBP and Recent advances in clinical assessment, laboratory investigations and diagnosis of musculoskeletal disorders.
2	EBP in Management of pain in musculoskeletal disorders
3	Recent Advances in management of orthopaedic conditions (Medical and Surgical)
4	Recent advances in Manual Therapy management for spinal disorders
5	Recent advances in Manual Therapy management in arthritis and allied conditions (8)
6	Recent Advances and Controversies in Electrotherapy
7	Recent advances in Kinematic & kinetic analysis
8	Current trends and EBP in Taping techniques
9	Current trends in sports injuries and management.
10	Evidence Based Physiotherapy in management of metabolic and hormonal, neoplastic and infective conditions of bones and joints.
11	Recent Advances in Physiotherapy following arthroplasty, implants and soft tissue repairs.
12	EBP in recent advances in Physiotherapy after tendon transfer, Electrical stimulation and biofeedback procedures.
13	EBP in Rehabilitation of congenital conditions and malformation of musculoskeletal disorders.
14	Recent Advances in External aids, appliances, adaptive self-help devices; prescription, biomechanical compatibility, check-out and training.
15	EBP and Recent advances in electro diagnosis, Electromyography, NCV and evoked potential studies.
16	Ergonomics assessment and management at work place.
17	Recent Advances and Controversies in Manual Therapy.
18	Evidence based Physiotherapy practice in orthopaedic manual therapy
19	Current trends in orthopaedic implants- designs, materials indications, post-operative Physiotherapy
20	Current trends in Fractures, joint instabilities, soft tissue disorders, deformities, nerve injuries and Physiotherapy.
21	Recent advances in Amputation- Physiotherapy management and prosthetic prescription
22	Equipment in orthopaedic Physiotherapy such as : a. Isokinetic b. EMG and Biofeedback c. Proprioception assessment equipment d. Gait analysers.

Clinical:

Second year:

Acute Care, Manual Therapy & Rehabilitation in Musculoskeletal dysfunctions: Indoor and Outdoor patients

Neuro Physiotherapy

Paper – I Advances in Neuro Physiotherapy - (Part I)
Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

This paper will focus on advances in theory and practices in paediatrics 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 pediatrics 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 pediatrics neurological disorders and early intervention skill.
9. Role of Physiotherapy in progressive pediatrics 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

Paper – II Advances in Neuro Physiotherapy (Part II)

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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

1. Neurodevelopment and neuro physiological 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, Paediatrics Neuro medical, neurosurgical and OPD, Early intervention.

Cardiovascular and Respiratory Physiotherapy

Paper – I Advances in Cardiovascular and Respiratory Physiotherapy (Part I). (Respiratory Physiotherapy)

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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 Thoraco respiratory 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

Paper – II Advances in Cardiovascular and Respiratory Physiotherapy (Part II)
(Cardiovascular Physiotherapy)
Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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, Metabolic and endocraniological disorders
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

Speciality

Acute care, Emergency units & Rehabilitation in Cardiovascular & Respiratory dysfunctions: Intensive care units, Cardiovascular & Respiratory, preventive cardiology, metabolic disorders and health promotion (Indoor & OPD), field visits**.**

COMMUNITY PHYSIOTHERAPY

Paper – I Advances in Community Physiotherapy – Part - I

(Essentials of Community Physiotherapy)

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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.

Paper – II Advances in Community Physiotherapy – Part II

(Women's Health, Industrial Health and Geriatric Health)

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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 – nose, 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
17. Community Physiotherapy.
18. Evidence Based Practice in Community Health.

Clinical Posting Second year

Gynecology and Obstetrics, antenatal postnatal OPD, geriatric OPD, PHC/CHC in Rural areas, Urban slums, Industry, Old Age Homes, Physical Rehabilitation Centers

Sports Physiotherapy

Paper – I Advances in Sports Physiotherapy – Part I

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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. CO therapeutics and its relevance with Physiotherapy

Paper – II Advances in Sports Physiotherapy – Part II

Total hours – 400 (Theory – 150 hours + Practical / Clinical – 250 hours)

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.

Examination Pattern: All papers to be set and evaluated by speciality teachers. Topics from Applied Physiotherapeutics Paper I & II can be subject to application as per speciality.

Theory Examination:

- There shall be 3 theory papers for 1st M.P.Th and 2 theory papers for 2nd M.P.Th 100 marks each
- Each paper shall be of three hours duration

M.P.Th 1st Year Question Paper Structure:

Paper I - Research Methodology and Biostatistics

Paper II - Basic Sciences and Physiotherapeutics

Paper III – Advanced Physiotherapeutics and Evidence Based Practice

M.P.Th 2nd Year Question Paper Structure:

Paper I- Advances in Physiotherapy (Specialty) – I

Paper II - Advances in Physiotherapy (Specialty) – II

Question paper I pattern : (ALL QUESTIONS COMPULSORY)

RESEARCH METHODOLOGY AND BIOSTATISTICS

Q. No.	Nature of question	Distribution of marks	Total marks
1.	2 LONG ESSAY	2 × 20	40 marks
2.	6 SHORT ESSAY	6×10	60 marks

Question paper II pattern: (ALL QUESTIONS COMPULSORY)
Basic Sciences and Physiotherapeutics

Q. No.	Nature of question	Distribution of marks	Total marks
1.	2 LONG ESSAY (Section a & Section C)	2 × 20	40 marks
2.	6 SHORT ESSAY (Section A 2 question, Section B 2 Question, & Section C 2 Question)	6×10	60 marks

Question paper III pattern : (ALL QUESTIONS COMPULSORY)
Advanced Physiotherapeutics and Evidence Based Practice

Q. No.	Nature of question	Distribution of marks	Total marks
1.	2 LONG ESSAY (Section a & Section C)	2 × 20	40 marks
2.	6 SHORT ESSAY (Section A 2 question, Section B 2 Question, & Section C 2 Question)	6×10	60 marks

Question paper I & II pattern : (ALL QUESTIONS COMPULSORY)

Advances in Physiotherapy (Specialty) – Part – I & Part – II

Q. No.	Nature of question	Distribution of marks	Total marks
1.	2 Long Answer question answer	2 × 20	40 marks
2.	5 Short Answer Questions	6×10	60 marks

Practical Examination:

1st Year MPTh Practical / Clinical - 250 Marks

Note: All cases for clinical examination should be on patients & not on models.

Day - 1

1. Case (1) – 1 x 100 = 100 Marks (SPECIALIZATION CASE)
2. Case (2) – 1x 100 = 100 Marks (NON SPECIALIZATION CASE)

Viva – Voce - 50 Marks

2nd Year MPTh Practical / Clinical - 300 Marks

Day - 1

1. Long case- 1x 100=100 marks- (SPECIALIZATION CASE)
2. Short case- 1x 70=70 marks-(SPECIALIZATION CASE)

Day - 2

Viva-Voce - 30 Marks

Dissertation - 70 Marks

Micro teaching - 30 Marks

a. CRITERIA FOR QUESTION PAPER SETTING/ ANSWER SHEET EVALUATION For all theory subjects question paper setter and answer sheet evaluator must have minimum of 5 years of postgraduate teaching experience.
b. CRITERIA FOR EXAMINERS There shall be two examiners, one of them external, outside the university and the other internal preferably from the same college or as decided by the University.
c. NUMBER OF APPEARANCES Candidate registered for two years post graduate degree course should qualify in the examination within four years of date of admission. The candidate has to reregister for the course it he/she fails to complete within stipulated time

DISSERTATION:

Every candidate pursuing M.P.Th. course is required to carry out work on a selected research project under the guidance of a recognized postgraduate teacher. The results of such a work shall be submitted in the form of a dissertation. The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of the problem, formulation of a hypothesis, review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results, drawing conclusions and evaluation of research project. Every candidate shall submit the synopsis to the to the university in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within 6 months from the date of commencement of the course on or before the dates notified by the university. The synopsis shall be sent through the proper channel. Synopsis will be reviewed by the external evaluator and the university will register the dissertation topic. No change in the dissertation topic or guide shall be made without prior approval of the university. The dissertation should be written under the following headings.

1. Introduction
2. Aims and objectives of study,
3. Review of literature,
4. Material and methods,
5. Results,
6. Discussion,
7. Conclusion,
8. Summary,
9. References,
10. Tables,
11. Annexure.

The written text of dissertation shall not be less than 50 pages and shall not exceed 100 pages excluding references, tables, questionnaires and other annexure. It 17 should be neatly typed in double line spacing on one side of paper (A4 size,8.27" x 11.69") and bound properly. Spiral binding should be avoided. The guide, head of the institution shall certify the dissertation

Four hard copies & a soft copy of the dissertation duly certified by the guide, Head of the department and Principal shall be submitted to the Controller of examination D Y Patil Education Society Deemed to be University Kolhapur through the Head of the department three months before final examination. The examiners appointed by the university shall value the dissertation. Approval of dissertation work is an essential precondition for a candidate to appear in the university examination. The dissertation shall be valued by the evaluator (examiners) apart from the guide out of which one is external outside the university and one internal from the same university. Any one-evaluator acceptance other than the guide will be considered as a precondition for eligibility to take up the examination**.**

Competency Statements

1. Analyze and discuss the biomedical, behavioral and social science bases of Physiotherapy and integrate the bases into Physiotherapy practice.
2. Collects assessment data relevant to the client's needs and Physiotherapy practice.
3. Be able to conduct the patient evaluation and assessment as per condition.
4. Assess, analyze, and plan Physiotherapy management.
5. Apply and evaluate Physiotherapy management.
6. Able to assess, plan, & manage Physiotherapy in acute care
7. Use of ICF & its core sets in documenting & coding the functional status information for purpose of assessing stakeholder needs & planning management.
8. Advise patient on appropriate nutrition, exercises, rest, relaxation other issues
9. Demonstrate professional practice.
10. Demonstrate autonomous Physiotherapy practice.
11. Demonstrate the ability to search and retrieve scientific literature
12. Demonstrate an understanding of research methods.
13. Demonstrate the ability to critically analyze scientific literature
14. Prepare Report findings of critical analysis in a scientific format

Sr. No	Learning outcomes	Knowledge/comprehension	Applications/synthesis/evaluation
1	Anlyse and discuss the biomedical, behavioural and social science bases of Physiotherapy and integrate the bases Physiotherapy practice	Be familiar with normal & abnormal patterns of human development and movement. Understant the anatomical framework of the human body including major systems and aspects of the social, cultural, psychological, enviornmental, spiritual and belief systems influencing human development. Able to understand the concept of health & its contribution to wellness.	Analyse normal and abnormal patterns of human development and movement. Demonstrate understanding of structural and functional anatomy. Identify anatomical structur e from surface landmarks. Describe the normal physiological process and the changes throughout the life span. Analyse basic human movement Evaluate the significance of healthy lifestyles for patients/clients
2	Collects assessment data relevant to the client's needs and Physiotherapy practice	Informs the client of the nature and purpose of assessment as well as any associated signifacant risk	Perform patient assessment technique which includes to know the condition and to gather information about his/her ailment. Monitors the client's health status for significant changes during the course of assessment and takes appropriate actions as required. Perform assessment procedure safely and accurately, taking into account client consent, known indications, guidelines, limitations and risk-benefit considerations.
3	Be ale to conduct the patient evluation and assessment as per condition.	Be familiar with different assessment techniques. Able to examine higher motor functions, cranial nerves, ROM, MMT, Muscle tightness, muscle tone, myotome, sensory evaluation, balance, co-ordination, hand function, functional outcome measures, physical fitness, cardio-respiratory evaluation posture & gait. Be familiar with special tests. Basic knowledge on radiological findings & other investigations. Demonstrate clinical reasoning with choice of assessment and examination procedures.	Perform patient assessment technique to know the condition and to gather information about his/her ailment. Safely and accurately examiners and re-examines a patient using standardized measures. Apply pertinent tests and measurements. Interpret all assessment findings to allow for identification of the patient's/client's impaiments, activity limitations and participation restrictions. Interpret findings and reach a differential diagnosis Establishes a diagnosis for Physiotherapy, identifies risks of care, and makes appropriate clinical decisions based upon the examination, evaluation and current availble evidence.

4	Assess, analyse, and plan Physiotherapy management	Identify the principles of assessment, clinical reasoning, problem identification, goal setting, treatment planning. Be familiar with different assessment techniques and protocols. Know the protocols used in the department. Justify treatment choices with a sound pathophysiological rationale.	Develop rapport to obtain history, current health status and previous functional abilities. Interpret the patient's/client's verbal and non-verbal responses. Determines the personality traits and Analyze how the differences in personality influence approach. Perform patient assessment technique which includes to know the condition and to gather information about his/her ailment.
5	Apply and evaluate Physiotherapy management	Know the protocols used in the department. Understand and Prevent/minimise risks and hazards during Physiotherapy interventions. Establish equipments is within safety check time frames. Demonstrate knowledge of emergency procedures.	Demonstrate safe, effective and efficient inerventions. Evaluate the effectiveness of the Interventions.
6	Able to assess plan, & manage Physiotherapy in acute care set up.	Familiarize with equipments in acute care Monitoring of vitals Assesment & interpretation of vital signs Know and apply Physiotherapy treatment protocols in acute care setup	Apply safe & effective Physiotherapy intervention to work as team member of acute care multidisciplinary team.
7	Use of ICF & its core sets in documenting & coding the functional status information for purpose of assessing stakeholder needs & planning management .	Identify and grade the impairment of body structure and body function with respect to the health condition. To identify the activity limitation and participation restriction. To identify the facilitators and barriers with respect to environmental & personal factors. To assess the felt needs of the stakeholder To assess the capacity & plan the need based physiotherapeutic intervention.	Understant use of ICF & its coding in 1. Surveys of specific & general population. Analysis of population Health & disability data to facilitate harmonization & comparison of data sets. Derive disability questionnaires for regional & international projects. Guiding policy development & monitorind its implementation.
8	Advise patient on appropriate nutrition, exercises, rest, relaxation other issues.	Explain the impact of exercise and nutritional status of patient during treatment.	Assess the patien's status after exercise and proper diet.

9	Demonstrate professional Practice.	Demonstrate attitudes and behavior acceptable to society and the profession Practice in accordance with the Standards of Ethical conduct Explain the health and safety issues for patients and staff Able to deliver safe, effective and timely Physiotherapy interventions. Recognizes risk & hazards which can happen during intervention. Ability to reflect and evaluate own practice. Modify and adapt professional practice in response to evaluation	Demonstrate profesional behavior Demonstrate safe Practice Plan and show evidence of Professional development.
10	Demonstrate autonomous Physiotherapy practice	Recognize the critical conditions of patients. Be familiar with current literature and evidence based best practice	Independetly assess and treat patients with single or multiple problems which needs physiotherapeutic intervention. Demonstrate an ability to refer to other health professionals when beyond the scope of Physiotherapy.
11	Demonstrate an understanding of research methods.	Have a basic understanding of the value of different research paradigms to Physiotherapy research. Demonstrate a basic understanding of research processess. Understand the ethics of the research process including plagiarism and consent.	Describe appropriate research methodologies that may be used to examine a variety of research questions. Describe the key elements of research design. Describe different methods of data Collection. Demonstrate knowledge of basic biomedical statistics.
12	Demonstrate the ability to critically analyse scientific literature	Identify appropriate criteria to assess quality of different types of literature.	Demonstrate an understanding of the process of critical review. Demonstrate the use of an appropriate critiquing tool to guide interpretation. Critically analyse an appropriate selection of scientific papers.
13	Demonstrate the ability to search and retrieve scientific literature	Define search terms Knowledge on available data search resources Identify relevant sources of Research	Develop and modify search Strategies appropriately complete searches using relevant and available resources such as electronic data bases. Discuss different methods of statistical analysis in relation to different research designs. Discuss the possible ethical implications and requirements in health research.

14	Prepare Report findings of critical analysis in a scientific format	Be familiar with different writing format depending on the research methodology. Be familiar with different referencing styles. Knowledge on presentation methods. Integrate the current literature into Physiotherapy practice	Use standardized writing format Cite references using a recognized scientific method Demonstrate an ablility to synthesise information from several resources Demonstrate the ability to communicate research findings using a variety of presentation methods. Critique current Physiotherapy practice with reference to contemporary research literature.

Annexure –I

DISSERTATION: -

1. Every candidate pursuing M.P.Th degree course is required to carry out work on a selected research project under the guidance of a recognized postgraduate teacher. The results of such a work shall be submitted in the form of a dissertation.
2. The dissertation is aimed to train a postgraduate student in research method and techniques. It includes identification of a problem, formation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, statistical analysis of results, discussion and drawing conclusion.
3. Every candidate shall submit to the Center of Interdisciplinary Research of the University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within 6 months from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.
4. Such synopsis will be reviewed and the dissertation topic will be registered by the University.
5. Thesis Topics will be submitted 6 months after admission.
6. The ethics committee (College level) approval is mandatory.
7. Complete dissertation should be submitted 6 months before final examination.
8. The dissertation should be written under the following headings:
    i. Introduction
    ii. Need for the study
    iii. Aims or Objectives of study
    iv. Review of Literature
    v. Material and Methods
    vi. Results
    vii. Discussion
    viii. Conclusion
    ix. Limitation
    x. Clinical Implication- Suggestion
    xi. Summary
    xii. Tables
    xiii. Annexure

9. The written text of dissertation shall be not less than 50 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69"), Times New Roman, size 12, and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the institution.
10. Dissertation thus prepared shall be submitted to the controller of Examination, six months before final examination on or before the dates notified by the University.
11. The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.
12. The presentation and submission of dissertation will be as per the guidelines set by the Controller of Examinations in Notification No 08/2010 (Guidelines for submission of dissertation of MPTh Courses) and or as per notification revised from time to time.

Annexure -II

LIST OF REFERENCE BOOKS AND JOURNALS

FIRST YEAR M.P.Th BOOKS & JOURNALS

PHYSIOTHERAPY

1. American Physical Therapy Association: Guide To Physical Therapy Practice, 2nd Edition 2001.
2. Physical Rehabilitation (4& 5th Edition) By Susan B O Sullivan And Thomas J Schmitz. (Jaypee Publication)
3. International Classification Of Functioning, Disability And Health: Short Version. (IT'S Publication)
4. Professionalism In Physical Therapy: History, Practice And Development By Laura Lee Swisher And Catherine G.Page, (Elsevier Publication 2005)
5. Effective Documentation For Physical Therapy Professionals, By Eric Shamus And Debra (McgrawHill Company2004)
6. Physical Therapy Documentation: From Examination To Outcome By Mia Erickson, Ralph Utzman(Slack Incorporated 2008)
7. Writing SOAP Notes With Patient / Client Management Formats By GingeKettenbach, Ph. D., PT, 3rd Edition, 2004 ,F.A. DAVIS COMPANY. Philadelphia
8. Practical Evidence-Based Physiotherapy Rob Herbert, GroJamtvedt, Judy Mead, KareBirger Hagen Elsevier Butter Worth Heinemann; Oxford UK (2005)
9. Guide To Evidence-Based Physical Therapy Practice By Dianne V. Jewell, PT, Phd, Virginia Commonwealth University, Virginia
10. Concern Specialty Books For Physical Therapy Assessment And Outcome Measures
11. Electromyography In Clinical Practice By Michael J. Aminoff, 3rd Edition (Churchill Livingstone)
12. Clinical Neurophysiology By UK MisraAnd Kalita, 2nd Edition (Churchill Livingstone)
13. Electro Diagnosis In Diseases Of Nerve And Muscle: Principles And Practice By Jun Kimura (Oxford University Press)
14. The ABC Of EMG: A Practical Introduction To KinesiologicalElectromyography By Peter Conrad (Noroxon Inc. USA 2005)
15. Integrating Physical Agents In Rehabilitation By Bernadette HecoxAnd John Sanko, 2nd Edition (Pearson Prentice Hall 2006)
16. Integrating Physical Agents In Rehabilitation By Bernadette HecoxAnd John Sanko, 2nd Edition (Pearson Prentice Hall 2006)

17. Physicals Agents In Rehabilitation: From Research To Practical By Michell H. Cameron, 2nd Edition (Saunders And Elsevier, 2003)
18. Therapeutic Modalities For Allied Health Professionals By William E. Prentice And Frank Underwood (Mcgraw-Hill, 1998
19. Therapeutic Exercise: Treatment Planning For Progression By Francis E. Huber, Christly. Wells (W.B. Saunders Company, 2006)
20. Therapeutic Exercise: Foundations And Techniques By Carolyn KisnerAnd Lynn Allen Colby (W.B. Saunders Company, 2007)
21. Therapeutic Exercise, Moving Towards Function By Carrie M. Hall And Lori Thein Brody (Lippincott Williams &Wilkins, 2004)
22. Grieve'sModern Manual Therapy: The Vertebral Column By Jeffrey BoylingAnd Grad Dip Man Ther(Churchill Livingston)
23. Exercise Physiology By Mc Ardle, Katch&Katch (Lippincott Williams And Wilkins, 2000)
24. Exercise Physiology: Exercise, Performance, And Clinical Applications By Robert A. Roberts And Scott O Roberts William C Brown, 1997)
25. Clinical Exercise Testing AndPrescription Theory And Applications By Scott O. Roberts, Peter Hanson (C RC Press, 1997)
26. Basic Biomechanics Of The Musculoskeletal System By Margareta NordinAnd Victor H. Frankle, 2nd Edition (Lea And Febiger)
27. Kinesiology Of The Human Body: Under Normal And Pathological Condition By Arthur Steindler, 5th Edition (Charles C Thomas, 1977)
28. Joint Structure & Function : A Comprehensive Analysis By Cynthia C Norkin, Pamela K Levangie(Jaypee Brothers, 2006)
29. Brunnstrom's Clinical Kinesiology By Laura K. Smith &Don Lehmkuh, 5th Edition (F A Davis, 1996)
30. The Physiology Of The Joints By Kapandji & Matthew J Kendel(Churchill Livingstone, 2008)
31. Clinical Biomechanics Of The Spine By Augustus A White &Manohar M Panjabi, 2nd Edition (Lippincott Williams &Wilkins; 1990)
32. Kinesiology : The Mechanics And PathomechanicsOf Human Movement By Carol Oatis(Lippincott Williams &Wilkins; 2008)
33. Kinesiology: Application To Pathological Motion By Soderberg, 2nd Edition (Wiliams&Wilkins, 1997)

Research Methodology and Biostatics

1. Research Methodology .Methods and Techniques C.R. Kothari New Age International Publishers. 2nd edition 2008
2. Rehabilitation Research: Principles And Applications By Elizabeth Domholdt (Elsevier Science Health Science Div, 2004)
3. Research Methods for clinical therapists by Hicks Carolyne, Churchill
4. Foundations of clinical Research by Portney & Watkins,Davis
5. Research methodology by Kothari New Age international
6. Research Methodology for health professionals by Goyal,Jaypee
7. Methods in Biostatistics By Mahajan,B.K Jaypee
8. Principles & practice of Biostatistics By Dixit ,J.V Bhanot

Teaching Technology

1. Public Power And Administration – Wilenski, Hale And Iremonger, 1986
2. Physical Therapy Administration And Management – Hickik Robert J
3. Management Principles For Physiotherapists – Nosse Lorry J.
4. Medical Education: Principles and Practice: Published by the National teacher Training Center, JIPMER, Pondicherry: latest Edition
5. Medical Education: Trainer's Manual : Published by the National teacher Training Center, JIPMER, Pondicherry: latest Edition
6. Basics in Medical Education : Zubair Amin &Hoon EngKhoo: World Scientific: 2009
7. A Practical Guide for Medical Teachers : John A Dent& Ronald M Harden: Elsevier Health Sciences: 2009
8. International Handbook of Medical Education : Abdul W Sajid, Christie H McGuire et al: Greenwood Press 1994
9. PRINCIPLES OF MEDICAL EDUCATION, Tejinder Singh, Piyush Gupta, DaljitSingh.year: 2009. Edition: 3 rdeditionPublisher: JAYPEE brothers

Journals

1. Journal Of Indian Association Of Physiotherapy
2. Physical Therapy (APTA, America)
3. Physiotherapy (CSP, London)
4. American Journal Of Physical Medicine And Rehabilitation
5. Physiotherapy (Canada)
6. Physiotherapy – Theory And Practice
7. Australian Journal Of Physiotherapy
8. Physiotherapy (Canada).
9. Clinical Rehabilitation.
10. Journal Of Exercise Science & Physiotherapy

BOOKS & JOURNALS OF MUSCULOSKELETAL PHYSIOTHERAPY

1. Essentials of Orthopedics for Physiotherapists by John Ebenezer – Jaypee Publications
2. Practical Fracture Treatment by Ronald McRae, Max Esser – Churchill Livingston
3. Oxford Textbook of Orthopaedic & Trauma by Christopher Bulstrode, Joseph Buckwalter – Oxford University Press
4. Campbell's operative orthopedics. - By S. Terry Can ale, James H. Beaty - Mosby
5. Fractures & joint injuries By Watson Jones – Churchill Livingston
   Clinical Orthopaedic Examination by Ronald McRae – Churchill Livingstone
6. Daniels and Worthingham's muscle testing: Techniques of manual examination By Helen J Hislop, Jacqueline Montgomery Barbara – Elsevier
7. Muscles – Testing and Function by Florence Peterson Kendall – Lippincott
8. Joint Range of Motion and Muscle length testing By Nancy Berryman Reese - Saunders
9. Orthopedic Physical Assessment, By David J. Magee, PhD, BPT - Saunders
10. Illustrated Orthopedic Physical Assessment, 3e B y Ronald C. Evans, - Mosby
11. Diagnostic Imaging for Physical Therapists by James Swain, Kenneth W. Bush, and Juliette Brosing – Elsevier
12. Differential Diagnosis for Physical Therapists: Screening for Referral, ByCatherine C. Goodman, and Teresa Kelly Snyder – Saunders
13. Gait Analysis : Theory And Application By Rebecca Craik and Carol A Oatis – Mosby
14. Skeletal Growth and development: Clinical .

15. Introduction to Physical Therapy, By Michael A. Pagliarulo – Mosby.
16. Kinesiology: The mechanics and Pathomechanics of Human Movement by Carol A Oatis - Lippincott 4. Cash Text Book for Orthopedics and rheumatology for physiotherapist by John Elizabeth Cash & Patricia A Downie – Lippincott
17. Joint Mobilization / Manipulation: Extremity and Spinal Techniques by Susan L Edmond – Mosby
18. Foundations of Chiropractic by Meridel I Gatterman – Mosby
19. Grieve's Modern Manual Therapy: The Vertebral Column, By Jeffrey Boyling and Gwendolen Jull – Churchill Livingston
20. Kinesiology of the Musculoskeletal System: Foundations for Rehabilitation, By Donald A. Neumann, PhD, PT – Mosby
21. Maitland's Peripheral Manipulation, By EllyHengeveld, and Kevin Banks, - Butterworth-Heinemann 10. Maitland's Vertebral Manipulation, By Geoff D. Maitland, - Butterworth-Heinemann.
22. Hand and Upper Extremity Rehabilitation: A Practical Guide, By Susan L. Burke, - Churchill Livingston 12. Manual Therapy for the Peripheral Nerves B y Jean-Pierre Barral, DO(UK) and Alain Croibier, Osteopathe DO, MRO (F) – Churchill Linvingston
23. Neuromuscular Rehabilitation in manual and physical therapies: Principles and Practice by Eyal Lederman – Churchill Livingsto
24. Orthopaedic Physical therapy Secrets by Jeffrey D Place - Elsevier
25. Principles and Practice of orthopedics and sports medicine b y Garret
26. A Physiotherapist's Guide to Clinical Measurement by John Edward Fox, and Richard Jasper Day – Elsevier
27. Orthotics and Prosthetics in Rehabilitation, By Michelle M. Lusardi, PhD, PT and Caroline C. Nielsen, PhD - Butterworth-Heinemann
28. Clinical Application of Neuromuscular Techniques: The Upper Body by Leon Chaitow, and Judith DeLany, - Elsevier
29. Handbook of Postsurgical Rehabilitation Guidelines for the Orthopedic Clinician By Hospital for Special Surgery – Mosby
30. An Illustrated Guide to Taping Techniques – Principles & Practice By Thomas John Hewetson
31. Mosby
32. Paraplegia & Tetraplegia A Guide for Physiotherapists by Id a Bromley – Churchill Livingston
33. Therapeutic exercises using swiss ball By Caroline corning creager – Executive Physical therapy.

34. Manual Mobilization of the Joints – The Kaltenborn Method Volume I, II By Freddy kaltenborn.
35. Treat your own Back by Robin Mckenzie
36. Treat your own Neck by Robin Mckenzie
37. Cervical and Thoracic spine : Mechanical Diagnosis & Therapy Vol I & II By Robin Mckenzie
38. The Lumbar Spine: Mechanical Diagnosis & Therapy Vol I & II By R obinMckenzie
39. The Human Extremities: Mechanical Diagnosis & Therapy by Robin Mckenzie
40. Manual Therapy by Brain R Mulligan
41. Documentation for Rehabilitation: A Guide to Clinical Decision Making, By Lori Quinn, and James Gordon - Saunders
42. Clinical Orthopaedic Rehabilitation by S Brent Brotzman
43. Treatment and rehabilitation fractures by Vasantha L Moorthy&Stanley Hoppenfield - Lippincott 33. Physiotherapy for Amputees: The Roehampton Approach by Barbara Engstrom
- Churchill Livingston
44. Textbook of orthopedic medicine Vol I & II by James Cyriax - Bailliere

Journals

1. Clinical Kinesiology
2. Journal of biomechanics
3. Journal of pediatric Orthopedics
4. Journal of Orthopedic& Sports Physical Therapy (JOSPT).
5. Journal of Manual Therapy
6. Journal of Manual & Manipulative Therapy
7. Spine
8. Journal of Hand Therapy

Recommended Reading: Paper III, IV, V

1. Chew, F. (1997). Skeletal radiology: The bare bones (2nd ed.). Baltimore, MD: Williams & Wilkins.

2. Eisenberg, R. L., & Johnson, N. M. (2003). Comprehensive radiographic pathology (3rd ed.). St Louis, MO: Mosby.

3. Hughes, J., & Hughes, M. (1997). Imaging: Picture tests. Edinburgh: Churchill Livingstone.

4. Mace, J. D., &Kowalczyk, N. (1994). Radiographic pathology for technologists (2nd ed.). St Louis, MO: Mosby.

5. Redhead, D. N. (1995). Imaging: Colour guide. Edinburgh: Churchill Livingstone.

6. Yochum, T. R., & Rowe, L. R. (2005). Yochum and Rowe's essentials of skeletal radiology (3rd ed., Vols. 1-2). Baltimore, MD: Lippincott Williams & Wilkins. 26

7. Gunn, C. (1997). Bones and joints: A guide for students. London: Churchill Livingstone.

8. Haines, D. E. (2002). Fundamental neuroscience (2nd ed.). W. B. Saunders Co.

9. Kandel, E. R., Schwartz, J. H., &Jessell, T. M. (2000). Principles of neural science (4th ed.). USA: McGraw-Hill.

10. Longmore, J., Wilkinson, I., &Rajagopalan, S. (2004). Oxford handbook of clinical medicine (6th ed.). Oxford: OUP.

11. Newman Dorland, W. A. (2003). Dorland's illustrated medical dictionary (30th ed.). W. B. Saunders Co.

12. Nolte, J. (2002). The human brain: An introduction to its functional anatomy (5th ed.). St Louis, MO: Mosby.

13. Nolte, J., & Angevine, Jr. J. B. (2000). The human brain in photographs and diagrams (2nd ed.). St Louis, MO: Mosby.

14. Wicke, L. (1997). Atlas of radiologic anatomy (6th ed.). Munich, Germany: Lea &Febiger.

15. Seidel, H. (1995). Mosby's guide to physical examination. St Louis, MO: C.V. Mosby.

16. Cailliet, R. (1991). Neck and arm pain (3rd ed.). Philadelphia: FA Davis.

17. Cailliet, R. (1991). Shoulder pain (3rd ed.). Philadelphia: FA Davis.

18. Cailliet, R. (1991). Knee pain and disability (3rd ed.). Philadelphia: FA Davis.

19. Cailliet, R. (1994). Hand pain and impairment (4th ed.). Philadelphia: FA Davis.

20. Cailliet, R. (1995). Low back pain syndrome (5th ed.). Philadelphia: FA Davis.

21. Cailliet, R. (1996). Soft tissue pain and disability (3rd ed.). Philadelphia: FA Davis.

22. Chaitow, L. (2005). Cranial manipulation: Theory and practice (2nd ed.). Edinburgh: Churchill Livingstone. 27

23. Greenman, P. E. (2003). Principles of manual medicine (3rd ed.). Philadelphia: Lippincott Williams & Wilkins.

24. Wilson, A. (2002). Effective management of musculoskeletal injury: A clinical ergonomics approach to prevention. Churchill Livingstone.

25. O'Sullivan, F.A. Davis, Philadelphia 1994. Physical rehabilitation: assessment and treatment.

26. Victor H. Frankel and MangaretaNordin Basic Biomechanics of the Musculoskeletal system 2nd Edition

27. Leon chattow, and Judith Walker Delany - Clinical application on neuromuscular techniques: Vol-2 (The lower body)

28. Jones, M. A., & Rivett, D. A. (2004). Clinical reasoning for manual therapists. Edinburgh: Butterworth Heinemann.

29. Eyal Lederman - Fundamentals of manual therapy.

30. Grieve's modern manual therapy

31. Walter Herzog - Clinical Biomechanics of spinal manipulation

32. Sandy Fritz, Kathleen Paholsky and M.JanesGrosenbach - Basic Science for soft tissue and movement therapies.

33. Jean Sayne Adams, Steve Wright - Theory and practice of therapeutic touch.

34. AkhouryGourang Sinha – Principle and practice of therapeutic massage

35. Carol Manheim – The Myofascial release manual 3rd Edition

36. Maitland's – Peripheral manipulation 3rd Edition

37. Maitland's – Vertebral manipulation 6th Edition

38. Chaitow – Cranial manipulation theory and practice

39. Lynn Paul Taylor – Taylor's manual of physical evaluation and treatment

40. Denise Deic – Positional release technique from a dynamic systems perspective.

41. Goodman and Snyder – Differential diagnosis in physical therapy 2nd Edition.

42. Chaitow - Muscle energy technique,Management of Common Musculoskeletal Disorder (P.T. Principles and Methods): 3rd Edition

43. Jones, M. A., & Rivett, D. A. (2004). Clinical reasoning for manual therapists. Edinburgh: Butterworth Heinemann.

44. Eyal Lederman - Fundamentals of manual therapy.

45. Grieve's modern manual therapy

46. Walter Herzog - Clinical Biomechanics of spinal manipulation

47. Sandy Fritz, Kathleen Paholsky and M.JanesGrosenbach - Basic Science for soft tissue and movement therapies.

48. Jean Sayne Adams, Steve Wright - Theory and practice of therapeutic touch.

49. AkhouryGourang Sinha – Principle and practice of therapeutic massage

50. Carol Manheim – The Myofascial release manual 3rd Edition

51. Maitland's – Peripheral manipulation 3rd Edition

52. Maitland's – Vertebral manipulation 6th Edition

53. Chaitow – Cranial manipulation theory and practice

54. Lynn Paul Taylor – Taylor's manual of physical evaluation and treatment

55. Denise Deic – Positional release technique from a dynamic systems perspective.

56. Goodman and Snyder – Differential diagnosis in physical therapy 2nd Edition.

57. Chaitow - Muscle energy technique

58. Reid et al – Sports injury assessment and rehabilitation.

59. Kjaer et al – Text book of sports medicine

60. Scudder Mc Can - Sports medicine, A comprehensive approach 2nd Edition

61. Norris – Sports injuries, diagnosis and management for physiotherapists.

62. Werner Kuprian – Physical therapy for sports.

63. Mc Ginnis – Biomechanics of sports and exercises.

Journals

1. Clinical Kinesiology
2. Journal of biomechanics
3. Journal of pediatric Orthopedics
4. Journal of Orthopedic& Sports Physical Therapy (JOSPT).
5. Journal of Manual Therapy
6. Journal of Manual & Manipulative Therapy
7. Spine
8. Journal of Hand Therapy

BOOKS & JOURNALS OF NEURO PHYSIOTHERAPY

1. Text book of clinical neuroanatomy by Vishramsingh (Elsevier 2007)
2. Clinical Neuroanatomy for Medical Students by Richard S Snell, 5th Edition (Lippincott Williams & Wilkins, 2001)
3. Neurophysiology by RHS Carpenter, 4th edition (Arnold 2003)
4. Pathophysiology of the motor systems: Principles and Clinical presentations by Christopher M. Fredericks and Lisa K. Saladin (F.A. Davis Company 1996)
5. Brain's diseases of the nervous system by John Walton, 12th edition (Oxford University press)
6. A physiological approach to clinical neurology by James W. Lance and James G. McLeod, 3rd edition (Butterworth's 1981)
7. Muscle and its diseases: An outline primer of basic science and clinical methods by Irwin M. Siegel (Year book medical publishers 1986)
8. Neuroscience fundamental for rehabilitation by Laurie Lundy Ekman (W.B Saunders 1998)
9. Illustrated neurology and neuro surgery by Kenneth Lindsay and Ian Bone (Churchill Livingston, 2004) 7. Basic neurology by John Gilroy (Elsevier)
10. Hand book of neurologic rating scales by Robert M.Herndon, 2nd edition , (Demos publications 2005) 2. Bickerstaff's neurological examination in clinical practice by John Spillane, 6th edition (Blackwell science limited 1996)
11. Physical rehabilitation laboratory manual: Focus on functional training by Susan B O Sullivan and Thomas J Schmitz. (F.A. Davis Company)
12. The development of the infant young child: Normal and Abnormal by R.S. Illingworth, 9th edition (Churchill Livingstone 1996)
13. Functional Movement Reeducation – A contemporary model for stroke rehabilitation by Susan Ryerson and Kathryn Levit (Churchill Livingston and Elsevier, 1997)
14. Pediatric Physical Therapy, Jan Stephen Tecklin, 3rd (1999) and 4th (2008) editions, Lippincott Williams & Wilkins.
15. Physical Therapy for Children , Suzann K.Campbell, 3rd edition, 2006, Saunders Elsevier.
16. Physiotherapy for Children, Teresa Pountney, 2007, Butterworth Heinemann Elsevier.
17. Meeting the Physical Therapy Needs of Children , Susan K.Effgen, 2005, F.A.Davis Company, Philadelphia.
18. Physiotherapy in Pediatrics, Roberta B. Shepherd, 3rd edition, 1995, Butterworth Heinemann.
19. Neurologic Intervention for Physical Therapist Assistant, Martin Kessler, 1st &2nd Edition, 2008, W.B.Saunders Company Ltd.

20. Physiotherapy and the growing child , Yvonne R Borns& Julie MacDonald, 1996, W.B.Saunders Company Ltd.
21. Pediatric Rehabilitation, Gabriella E. Molnar, 3rd edition, 1999. Hanly&Belfus, Philadelphia.
22. Treatment of Cerebra l Palsy & Motor Delay , Sophie Levett, 4th edition, 2004. Blackwell Publishing. 10. Pediatric Therapy, A Systems Approach , Susan Miller Porr, 1999, F.A.Davis Company.
23. Reflex and Vestibular Aspects of Motor Control, Motor Development and Motor Learning , R.Barnes, Carolyn A Crutch field, 1990, Stokesville Publishing Company.
24. Neurological Rehabilitation, Darcy A. Umphred, 4th & 5th edition, 2007, 2001, MOSBYElsevier.
25. Physical Rehabilitation, Susan B.O Sullivan, 4th & 5th editions, 2007, Jaypee Brothers.
26. Cash's Textbook of Neurology for Physiotherapists, Patricia A. Downie, 4th edition, 1992, Jaypee Brothers.
27. Cardiovascular & Pulmonary Physical Therapy evidence &practice , Elizabeth (Dean & Donna frownfelter, 3th (1996) & 4th (2006) editions, MOSBY Elsevier.
28. Pediatric Physical Examination, Karen G.DunderStadt, 2006, MOSBY Elsevier
29. Clinics in Physical Therapy Assessment in Early Infancy, Edited by Irmaj. Wilhelm, 1993, Churchill Livingstone.
30. Motor Assessment of the Developing Infant , Martha Copier, 1994, Saunders
31. Neurological rehabilitation by Darcy A.Umphred, 5th Edition, 2007 (Mosby Elsevier Publication.)
32. Physical management in neurological rehabilitation by Maria Stokes (Elsevier Mosby publication 2004)
33. Physiotherapy in neuro conditions by Gladysamual raj (Jaypee brothers 2006)
34. Spinal cord injury functional rehabilitation by Martha Freeman Somers, 2nd edition (Prentice Hall publication)
35. Physiotherapy in disorders of the brain : A clinical guide by Janet H.Carr and Roberta B. Shepherd (William Heinemann medical books limited)
36. Cash textbook of Neurology for physiotherapists by Patricia Downie, 4th edition (Jaypee Wolf 1992) 7. Neurologic interventions for physical therapy by Suzanne Tink Martin and Mary Kessler, 2nd edition (Saunders Elsevier)
37. Functional neurorehabilitation through the life span by Dolores B. Bertoti (F.A. Davis Company 2004)
38. Brunnstrom's movement therapy in hemiplegia: A neurophysiological approach by Kathryn A. Sawner and Jeanne M. La Vigne, 2nd edition (Lippincott Company 1992).

39. Motor control: Translating research into clinical practice by Anne Shumway - Cook And Marjorie Woollacott, 3 edition (Lippincott Williams and Wilkins)
40. Neuro developmental treatment approach : theoretical foundations and principles of clinical practice by Janet M. Howle (NDTA2002)
41. PNF in practice: Susan Adler
42. Vestibular rehabilitation by Susan J.Herdman, 2nd edition (F.A. Davis Company 2000)
43. Mobilization of the nervous system by David S.Butler (Churchill Livingstone 1996)
44. Myofascial Release Manual
45. Stroke Rehabilitation: Guidelines for exercise and training to optimize motor skill By Janet Carr and R. Shepherd (Elsevier, 2003)
46. Neurological Rehabilitation, Optimizing motor performance by Janet Carr and R. Shepherd (Butterworth and Heinemann Ltd, 2004)
47. Functional Movement Reeducation – A contemporary model for stroke Rehabilitation by Susan Ryerson and Kathryn Levitt (Churchill Livingston and Elsevier, 1997)
48. A Motor Relearning Programme for Stroke by Janet Carr and R. Shepherd (Butterworth and Heinemann Ltd, Oxford Publication)
49. Recent advance in clinical neurology by Kennard, Churchill living stone
50. Stroke, by Wade D.T. & Others, Champan Halt
51. Neurology secrets by Rolak L.A., Jaypee Brothers
52. Physiological Approach to Clinical Neurology by Lance & Mcleod ,Butterworths
53. Stem cell therapy in neurological disorders by Sharma Alok, Neuro institute
54. Illustrated manual of neurology diagnosis by Douglas, J B Lipincoet company
55. Neurological examination made easy by Fuller Grant , Churchill Living stone
56. Principles of Neurology by Maurice Victor & Allan H Rapper, Mcgraw hill
57. Nerve and nerve injury by Sydney Sunderland, Churchill living stone
58. Neruological physiology by Edwards Susan, Elsevier
59. Neurological differential diagnosis by John Patten, Springler
60. Electromyography & Neuromuscular disorders by Preston David, Elsevier
61. Right in the middle by Davis Patricia, Springler
62. Steps to follow by Davis Patricia, Springler
63. Stroke rehabilitation : A functional approach by Gillen , Elsevier

Journals

1. Pediatric Physical Therapy
2. Journal Of Neurological Sciences
3. Indian Journal Of Cerebral Palsy.
4. Stroke.
5. Developmental Medicine & Neurology
6. Journal Of Neurosciences
7. Journal Of Neurological Physical Therapy
8. Journal of Paediatric Neurosciences

BOOKS & JOURNALS OF CARDIO RESPIRATORY SPECIALITY

1. Human Physiology By Guyton
2. Physiology Of Human Joints By Kapandji
3. Hand Book Of Physiology In Aging - Masoro, C.R.C Press
4. Mechanical Ventilation By Irwin R.S.Bemers
5. Mechanical Ventilation By David W. Chang
6. ECG By Schamroth
7. Interpretation Of Pulmonary Function Tests: A Practical Guide By Hyatt, Robert E.; Scanlon, Paul D
8. Principles Of Exercise Testing And Interpretation: Including Pathophysiology And Clinical Applications By Kalman Wasserman
9. Baum's Text Book Of Pulmonary Diseases
10. Crofton And Douglas's Respiratory Diseases
11. Egan's Fundamentals Of Respiratory Care By Robert Wilkins
12. Harrison's Textbook Of Medicine
13. Brawnwald's Cardiology
14. API's Text Book Of Medicine
15. Cardio Pulmonary Physical Therapy By Scott Irwin
16. Cardio Pulmonary Physical Therapy By Donna Frownfelter
17. Principles Of Cardio Pulmonary Physical Therapy By Asbury &Petty
18. Cardio Pulmonary Physical Therapy By Helenhillegas, (Saunders)
19. PT For RT & Cardiac Problems By Weber
20. Cardio Pulmonary Physical Therapy By Joanne Watchie
21. Physiotherapy For Respiratory And Cardiac Problems By Pryor JA; Prasad SA, Elsevier

22. Respiratory Ca Re – A Guide To Clinical Practice By Burton G.G. &Hodgkin.
23. Brompton's Chest Physiotherapy
24. Physiotherapy In Respiratory Care By Hough A Jaypee Publishers
25. Chest Physiotherapy In Intensive Care Unit By Mackenzie CF Williams And Wilkins
26. Cardiovascular And Pulmonary Physical Therapy By Felter D.F. Mosby
27. Exercise And The Heart By Froelicher V.F. Elsevier
28. Cardiovascular Health And Disease In Women By Douglas PS. Saunders
29. Acute Care Handbook For Physical Therapist B Y Jamie C.Paz Michel P. West. Butterworth Heine Mann
30. Physical Therapy For Children By Campbell Suzann K, W.B Saunders, Philadelphia
31. Chest Physiotherapy In Intensive Care Unit By Mackenzie, Williams &Wilkins, Baltimore
32. Cardiopulmonary Symptoms In Physiotherapy By Cohen M, Churchill, Livingstone, London
33. Physical Rehabilitation: Assessment And Treatment By O'Sullivan, F.A Davis, Philadelphia
34. Clinical Application Of Ventilatory Support By Kinky Churchill, Livingstone, New York
35. Pulmonary Rehabilitation: Guidelines To Success By Bodkins, Butterworth, Boston
36. Cardiac Rehabilitation By Amundsen Lord, Churchill, Livingstone, London
37. Physical Therapy Of The Cancer Patient By McgaryexCharles, Churchill, Livingstone, New York
38. Multidisciplinary Approach To Breathing Disorder By Leon
39. Clinical Exercise Testing By Jones
40. Pulmonary Rehabilitation. The Obstructive And Paralytic Conditions By John
41. Coronary Artery Disease Essentials Of Prevention And Rehabilitation Program By Peter
42. Pulmonary Rehabilitation By John Hodgkin (Elsevier)

Journals

1. Journal of cardiovascular Disease & research
2. Journal of American Thoracic Society-Thorax
3. American Heart Association-Chest
4. Indian Journal of Critical Care Medicine
5. Respiratory care –European Journal

BOOKS & JOURNALS OF COMMUNITY PHYSIOTHERAPY

1. Geriatric Physical Therapy By Andrew A. Guccione, 2nd Edition (Mosby 2000)
2. Developing Cultural Competence In Physical Therapy Practice By Jill Black Lattanzi, Larry D. Purnell (F.A.Davis Company, Philadelphia 2006)
3. Rehabilitation Of The Aging And Elderly Patient By Gerald Felsenthal, Susan J. Garrison, Franz U. Steinberg (Williams &Wilkins 1994)
4. Physical Therapy Of The Geriatric Patient By Jackson Osa. Churchill Livingstone. New York.
5. Geriatric Physical Therapy: A Clinical Approach By Carole B. Lewis And Jennifer Bottomley (1993)
6. Geriatric Rehabilitation Manual By Timothy L. Kauffman (1999)
7. Manual Of Geriatric Rehabilitation By David X. Cifu (2003)
8. Functional Fitness For Older Adults By Patricia A. Brill (2004)
9. Epidemiology Of Aging – An Ecological Approach By William A. Satariano (Jones And Bartlett Publishers, 2006).
10. Little Black Book Of Geriatrics, By Karen Gershman, Mccullough Dennis 4th Edition (Jones And Bartlett Publishers, 2008).
11. Burnside's Working With Older Adults, Group Process And Techniques By Barbara Haight, Faith Gibson; 4th Edition (Jones And Bartlett Publishers, 2005).
12. Developing Cultural Competence In Physical Therapy Practice, Jill Black Lattanzi, Larry D. Purnell (2006 F.A. Davis).
13. Industrial Therapy, Key.G.L. (1987 Mosby)
14. Physiotherapy In The Community , Gibson, Ann. 1988, Woodhead-Faulkner (Cambridge, Wolfeboro, N.H., USA)
15. Community Rehabilitation In Neurology, Michael P. Barnes, Harriet Radermacher, Cambridge University Press 2009
16. Community Care For Health Professionals, Ann Crompton And Mary Ashwin, (Butterworth – Heinemann 2000)
17. Ruth Sapsford, Joanne Bullock Saxton, Sue Markwell, "Women's Health: A Textbook For Physiotherapists, 1998, Bailliere Tindall.
18. Physiotherapy In Obstetrics And Gynecology, Margaret Polden And Jill Mantle, Butterworth- Heinemann Publishers, Stoneham, MA, 1990
19. Obstetrics And Gynecologic Physiotherapy , Elaine Wilder, Churchill Hill Livingstone.
20. Rebecca G. Stephenson, Linda J. O' Connor, "Obstetric And Gynecologic Care In Physical Therapy", 2000, Slack Incorporated 2 Edition.

21. Carolyn Kisner, Colby Allen Iynn, “Therapeutic Exercise Foundations And Techniques, 5th Edition.
22. Bo, Kari; Berghmans, Bary, “Evidence-Based Physical Therapy For The Pelvic Floor: Bridging Science And Clinical Practice”, 2007, Churchill Livingstone (London)
23. Irion, Jean M.; Irion, Glenn, “ Women's Health In Physical Therapy: Principle And Practices For Rehabilitation Professional”, 2009, Lippincott Williams And Wilkins (Philadelphia).
24. David Wise, Rodney U. Anderson, J. Laycock, “Therapeutic Management Of Incontinence And Pelvic Pain: Pelvic Organ Disorders”, 2007, Springer; 2nd Ed. Edition.
25. Matthew Parsons, Linda Cardozo, “Female Urinary Incontinence In Practice”, 2004, Royal Society Of Medicine Press.
26. John Cox And Jeni Holden, “Perinatal Mental Health - A Guide To The Edinburgh Postnatal Depression Scale”, 2003, Gaskell Publisher.

    Carrie Hall And Lori Thein Brody, “Therapeutic Exercise: Moving Towards Function, 2005, Lippincott Williams &Wilkins.
27. Padubidri Vg Shirish N Daftary, Shaw's Textbook Of Gynecology, Elsevier India P Ltd 2008.
28. Gary Cunningham Et Al, Williams Obstetrics, Mcgraw Hill Professional, 2001
29. Kevin P Hanretty, Et Al, Obstetrics Illustrated, Churchill Livingstone; 6 Edition
30. David Makay Hart, Et Al Gynaecology Illustrated, Churchill Livingstone 2000.
31. Rehabilitation. 2.Disabled Persons. 3.Community Health Services. 4.Health Policy. 5.Human Rights.6.Social Justice. 7.Consumer Participation. 8.Guidelines.
    WHO Library Cataloguing-in-Publication Data
32. I.World Health Organization. II.UNESCO.
33. III.International Labour Organisation. Iv.International Disability Development Consortium.
34. IsBn 978 92 4 154805 2 (nlm classifi cation: wB 320)
35. © World Health Organization 2010
36. **Prejudice & Dignity : An introduction to Community-Based Rehabilitation** by Einar Helander United Nations Development Programme . Publication NO, E93-III-B.3, ISBN92-1- 126032-9.
37. **Training in the Community for People with Diasabilities** by E. Helander , P.Mendis, G.Nelson, and A.Goerdt. Published by WHO Geneva 1989.
38. **Finnie's Handling the Young Child with Cerebral Palsy at Home**, 4th Edition 2008, Editor: Eva Bower

Journals

1. Journal Of Rehabilitation – Research And Development
2. Archives Of Physical Medicine And Rehabilitation
3. Geriatric Physical Therapy
4. Journal Of Geriatrics
5. Journal Of Indian Academy Of Geriatrics
6. Journal Of Clinical Gerontology & Geriatrics

BOOKS & JOURNALS OF SPORTS PHYSIOTHERAPY

1. Orthopedic Sports Medicine, DeleeDrez Miller, 3rd edition: 2009, Saunders Elsevier
2. Sports Physiotherapy, Maria Zuluaga, Christopher Briggs, John Carlisle.
3. Sports Injury Assessment and Management, David C Reid.
4. Orthopedic and sports physical therapy, Terry R.Macone:3rd edition, 1997: Mosby.
5. Post surgical orthopedic sports rehabilitation knee and shoulder, Robert C. Maske: 2006: Mosby Elsevier.
6. Sports injuries diagnosis and management, Christopher N. Norris: 2nd & 3rd edition: 1998: BH.
7. Sports medicine secrets, Hanley and belters, 2nd edition: 2001: jaypee.
8. Sports injuries prevention and their treatment, Lass Peterson: 1st edition: 2001: Martin dunitz.
9. Sports medicine problem and practical management, Eugene sherry, 1st edition:1997: GMM.
10. Exercise and sports science, Garrett, Kirkendall: 2000: Lippincott Williams And Wilkins.
11. ACSM'S essentials of sports medicine, Robert E. salhi, fredymassimino: 1997: Mosby.
12. Sports medicine in primary care , Rob jonson M.D: 2000: saunders company.

Journals

1. American Journal of Sports Exercises
2. Journal of Orthopaedic & Sports Physical Therapy (JOSPT).
3. American Journal of Sports Medicine.
4. British Journal of Sports Medicine.
5. American Journal of Sports Exercises.

Course Structure :

2nd Year M.P.Th Subjects Advances in Specialty (I) and (II)				
Sr. No	**Subject**	**Teaching hours**		
		Theory	**Practical / Clinical**	**Total**
1	Paper – I	150	250	400
2	Paper – II	150	250	400
3	Clinical Training	-	800	800
4	Seminar Presentation	-	-	250
5	Journal Presentation	-	-	150
			Total Hours	**2000**

2nd YEAR M.P.Th (Speciality in Cardiovascular-Respiratory Physiotherapy)
SUBJECT – PAPER I ADVANCES IN CARDIOVASCULAR & RESPIRATORY PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Respiratory conditions)
a)
b)

Q. II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Respiratory conditions)
a)
b)
c)
d)
e)
f)

2nd YEAR M.P.Th (Speciality in Cardiovascular-Respiratory Physiotherapy)
SUBJECT – PAPER II ADVANCES IN CARDIOVASCULAR & RESPIRATORY PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Cardiovascular Conditions)
a)
b)

Q. II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Cardiovascular Conditions)
a)
b)
c)
d)
e)

2nd YEAR M.P.Th (Speciality in Community Physiotherapy)
SUBJECT – PAPER I ADVANCES IN COMMUNITY PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Essentials of Community Physiotherapy)
a)
b)

Q.II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Essentials of Community Physiotherapy)
a)
b)
c)
d)
e)
f)

2nd YEAR M.P.Th (Speciality in Community Physiotherapy)
SUBJECT – PAPER II ADVANCES IN COMMUNITY PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY (2× 20 = 40)
(Questions must be from Women's Health, Industrial health and Geriatric Health)
a)
b)

Q. II SHORT ESSAY (6× 10 = 60)
(Questions must be from Women's Health, Industrial health and Geriatric Health)
a)
b)
c)
d)
e)
f)

2nd YEAR M.P.Th (Speciality in Musculoskeletal Physiotherapy)
SUBJECT – PAPER I ADVANCES IN MUSCULOSKELETAL PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Musculoskeletal Dysfunctions of the Upper Quadrant)
1.
2.

Q. II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Musculoskeletal Dysfunctions of the Upper Quadrant)
1.
2.
3.
4.
5.
6.

2nd YEAR M.P.Th (Speciality in Musculoskeletal Physiotherapy)
SUBJECT – PAPER II ADVANCES IN MUSCULOSKELETAL PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY (2× 20 = 40)
(Questions must be from Musculoskeletal Dysfunctions of the Lower Quadrant)
1.
2.

Q. II SHORT ESSAY (6× 10 = 60)
(Questions must be from Musculoskeletal Dysfunctions of the Lower Quadrant)
1.
2.
3.
4.
5.
6.

2nd YEAR M.P.Th (Speciality in Neuro Physiotherapy)
SUBJECT – PAPER I ADVANCES IN NEURO PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Paediatric Neurological conditions)

a)
b)

Q. II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Paediatric Neurological conditions)

g)
h)
i)
j)
k)
l)

2nd YEAR M.P.Th (Speciality in Neuro Physiotherapy)
SUBJECT – PAPER II ADVANCES IN NEURO PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**
ALL QUESTIONS ARE COMPULSORY:

Q. I. LONG ESSAY **(2× 20 = 40)**
(Questions must be from Adult Neurological Conditions)
c)
d)

Q. II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Adult Neurological Conditions)
f)
g)
h)
i)
j)
k)

2nd YEAR M.P.Th (Speciality in Orthopaedic Manual Therapy Physiotherapy)
SUBJECT – PAPER I ADVANCES IN ORTHOPAEDIC MANUAL THERAPY PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q. I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Orthopaedic Manual Therapy)

a)
b)

Q. II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Orthopaedic Manual Therapy)
a)
b)
c)
d)
e)
f)

2nd YEAR M.P.Th (Speciality in Orthopaedic Manual Therapy Physiotherapy)
SUBJECT – PAPER I ADVANCES IN ORTHOPAEDIC MANUAL THERAPY PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**
ALL QUESTIONS ARE COMPULSORY:

Q. 1 LONG ESSAY (2× 20 = 40)
(Questions must be from recent advances in Orthopaedic Manual Therapy)
a)
b)

Q. 2 SHORT ESSAY (6× 10 = 60)
(Questions must be from recent advances in Orthopaedic Manual Therapy)
a)
b)
c)
d)
e)
f)

2nd YEAR M.P.Th (Speciality in Sports Physiotherapy)
SUBJECT – PAPER I ADVANCES IN SPORTS PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q.I LONG ESSAY **(2× 20 = 40)**
(Questions must be from Sports Science and Exercise Physiology)
a)
b)

Q.II SHORT ESSAY **(6× 10 = 60)**
(Questions must be from Sports Science and Exercise Physiology)
a)
b)
c)
d)
e)
f)

2nd YEAR M.P.Th (Speciality in Sports Physiotherapy)
SUBJECT – PAPER II ADVANCES IN SPORTS PHYSIOTHERAPY

Date - **Total Marks – 100**
Time - **Duration – 3 hrs**

ALL QUESTIONS ARE COMPULSORY:

Q.1 LONG ESSAY (2× 20 = 40)
(Questions must be from Advances in sports injury management & Rehabilitation)
a)
b)

Q.2 SHORT ESSAY (6× 10 = 60)
(Questions must be from Advances in sports injury management & Rehabilitation)
a)
b)
c)
d)
e)
f)

Scheme of Examination

2nd Year M.P.Th Subjects Advances Specialty (I) and (II)								
	Theory Max	**Theory Internal Assessment Max**	**Total Theory +IA Marks**	**Theory Total**	**Practical + Viva Voice Max**	**Practical Internal Assessment Max**	**Total Practical + IA Marks**	**Grand Total**
Paper-I Advances in (Specialty)Physiotherapy Part-I	100	50	MAX 150 MIN 75	MAX 300	300	50	MAX 350 MIN 175	650
Paper-II Advances in (Specialty) Physiotherapy Part- II	100	50	MAX 150 MIN 75					

Standard of Passing

2nd Year - M.P.Th

1. Minimum pass marks shall be 50 % in each of the theory and practical papers separately
2. A Candidate must have minimum of 80 % attendance (irrespective of the kind of absence) in theory and practical in each subject for appearing for University examination.
3. A Candidate must have 80 % Attendance in each of the practical areas before award of degree,
4. A Candidate has to pass in theory and practical exam separately in each of the paper
5. If candidate fails in either theory and practical paper he/she has to re-appear for all the papers (Theory and practical)
6. M.P.Th candidate should clear supplementary examination for appearing 2nd M.P.Th final examination.
7. Maximum 2 attempts are allowed to appear along with 1 mercy attempts.
8. Should secure at least 50% of total marks assigned for internal assessment in particular subject in order to be eligible to appear in the University examination of that subject.
9. Should secure at least 50% of total marks in college exam in subject for which University exam not recommended.
10. Declaration of class will be as per University norms.
11. A candidate pursuing Master of Physiotherapy course shall study in the concerned department of the institution for entire period as a fulltime student. Candidates are not permitted to work as an employee in any laboratory/hospital/ clinic/college etc., while studying the course. Candidates are not to join any other full time courses of study or appear for any other examination conducted by this university or any other university in India or abroad during the period of registration.
12. Post graduate students shall be trained to acquire responsibilities in the management of patients with ethical standards of practice. They will be made to actively involve themselves in seminars, case presentations, presentation of scientific papers from journal and clinical discussions with reflective practice. Every candidate will be given training in teaching of undergraduate students. They are specially trained to perform research activities in their Speciality.
13. A written examination consisting of five theory papers, each paper has threehours duration & each paper carrying 100 marks.
14. A Viva-Voice examination of both 1st and 2nd year MPTh consisting 80 (50+30) that is aimed at examining the depth of knowledge, logical reasoning, confidence & oral communication skills with special emphasis on dissertation work. The marks of Viva-Voce examination shall be included in the clinical examination to calculate the percentage and declaration of results.

15. A clinical examination of first year MPTh consisting of 200 marks and second year MPTh consisting of 170 marks with total of 370 marks that is aimed at examining clinical skills and competency of the candidates for under taking independent work.
16. A written examination consisting of five theory papers, each paper has three hours duration & each paper carrying 100 marks.
17. The examination for MPTh course shall be held at the end of every academic year. The university shall conduct two examinations in the year such as.
    i. Regular
    ii. Supplementary at an interval of six months between two examinations. Not more than two exams shall be conducted in the academic year. To be eligible to write the second year examination the candidate should have cleared the first year examination with 50% of mark.

18. Practical Examination:

2nd Year M P Th Practical / Clinical - 300 Marks

Day - 1

1. Long case- 1x 100=100 marks- (SPECIALIZATION CASE)
2. Short case- 1x 70=70 marks-(SPECIALIZATION CASE**)**

Day - 2

Viva-Voce - 30 Marks

Dissertation - 70 Marks

Micro teaching - 30 Marks

D. Y. Patil Education Society
(Deemed to be University), Kolhapur

Re-accredited by NAAC with 'A' Grade