

Maharashtra University Of Health Sciences

ORDINANCE AND REGULATIONS RELATING TO THE DEGREE IN MASTER OF PHYSIOTHERAPY (SPECIALTY)

MASTER OF PHYSIOTHERAPY (Specialty) M.P.Th(Specialty)

Aim:

The Master of Physiotherapy (specialty) Programme is directed towards rendering training in Specialty Clinical fields so as to enhance professional competence in order to fulfill requirement for Physiotherapy Education and Practice.

Specialties offered:

- 1. Physiotherapy in Musculoskeletal Sciences**
- 2. Physiotherapy in Neurosciences**
- 3. Physiotherapy in Cardiovascular and Respiratory sciences**
- 4. Physiotherapy in Community Medical Sciences**

Duration:

Master of Physiotherapy (specialty) shall be a full time course with duration of **Three** academic years.

Eligibility:

Every candidate for admission to the course for the degree of Master of Physiotherapy (specialty) should have the Bachelor degree in Physiotherapy of the University or a degree of another University recognized as equivalent thereto.

Eligibility for appearing for the Exam:

Every candidate presenting himself/herself for the examination for the first time shall submit, at least six months prior to the university examination, the four written 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 based on the specialty subject should be 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 dissertation has been accepted by the examiners.

The examination for the degree of Master of Physiotherapy (specialty) shall be held at the end of the course-i.e. - at the end of three academic years.

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

Goal of the M.P.Th (Specialty) Programme:

The goal of training of post- graduate candidate in the respective specialty is to enable him /her to function as a consultant in the respective physiotherapy specialty. This requires a thorough knowledge of the fundamental and recent advances. He/she should be able to make logical decisions regarding patient management & adopt interventions independently. During this period he/she will be expected to acquire skills in teaching technology & gain experience in research methodology. He/she should practice Physiotherapy in respective Specialty, maintaining the highest regards for ethical aspects.

The programme shall focus on clinical reasoning, problem solving and measurement of treatment outcome, emphasizing on the recent diagnostic & therapeutic trends in Manipulative therapy, Neuro-development approach & Cardiopulmonary Physiotherapeutic skills.

Objectives of the Programme: -

At the end of the course the candidate shall be able to:

- Acquire the in-depth knowledge of structure and function of human body related to the respective branch of specialty.
- Acquire the in-depth knowledge of movement dysfunction of human body, cause thereof, & of principles underlying the use of physiotherapeutic interventions, for restoring movement dysfunction towards normalcy.
- Demonstrate ability to critically appraise recent physiotherapeutic and related medical literature from journals & adopt diagnostic & therapeutic procedures based on it.
- Demonstrate skill in Physical & functional diagnosis pertaining to patient under care.
- Demonstrate ability to make clinical decision & select appropriate outcome measures based on the comprehensive knowledge of theoretical aspects of specialty.
- Demonstrate an expertise in evidence-based skill in the management of movement dysfunction.
- Demonstrate an expertise in health promotion & quality restoration of functional movement pertaining to specialty.
- Planning and implementation of treatment programme adequately and appropriately for all clinical conditions related to respective specialty in acute and chronic stage, in intensive care, indoor and outdoor institutional care, independent practice, on fields of sports and community and during disaster or natural calamities.
- Demonstrate proficiency in planning and executing Physiotherapy services and teaching technology skills
- Demonstrate managerial and administrative skills.
- Demonstrate the knowledge of legislation applicable to compensation for functional disability & appropriate certification.

The syllabus for Master's degree in Physiotherapy(specialty) shall be as under:

The First year programme shall be common for all four Specialties.

M. P. Th.(Physiotherapy in Musculoskeletal sciences)

First academic year: Applied Physiotherapeutic – I & II

The programme shall focus on application of following advances in Physiotherapy practice with special reference to Child, Women & Geriatric health care.

- Manual medicine & therapeutic exercise
 - Clinical Biomechanics & Bioengineering
 - Fitness & health promotion Nutrition and diet
- } Applied Physiotherapeutic - I

- Advanced electrotherapeutics
 - Electro Diagnosis
 - Neuro-developmental & neuro-physiological approach
 - Teaching Technology Principles of Ethics \ Administration & Management in Clinical Practice.
- } Applied Physiotherapeutic - II

Second and Third academic year: Advances in Physiotherapy in (Specialty) I & II

- Functional and applied anatomy
- Clinical biomechanics – Kinesiology & Neurobiomechanics.
- Clinical decision making skills in evaluation & management of all pediatric, adult and geriatric dysfunction due to various pathology/patho-physiology of musculo-skeletal system.
- Advances in functional diagnostic procedures & various outcome measures
- Recent advances in pain evaluation and management
- Advances in the field of Manual Medicine.
- Principles of musculoskeletal health and performance related fitness used in sports & industrial health.
- Ergonomics in Musculoskeletal dysfunction.
- Assistive technology used for stability and mobility to enhance function.
- Evidence based practice
- Evaluation of disability

M. P. Th.(Physiotherapy in Neurosciences)

First academic year : Applied Physiotherapeutic – I & II

The programme shall focus on application of following advances in Physiotherapy practice with special reference to Child, Women & Geriatric health care.

- Manual medicine & therapeutic exercise
 - Clinical Biomechanics & Bioengineering
 - Fitness & health promotion Nutrition and diet
- } Applied Physiotherapeutic - I

- Advanced electrotherapeutics
 - Electro Diagnosis
 - Neuro-developmental & neuro-physiological approach
 - Teaching Technology Principles of Ethics \ Administration & Management in Clinical Practice.
- } Applied Physiotherapeutic - II

Second and Third academic year: Advances in Physiotherapy in (Specialty) I & II

- Neuro-anatomy & Neuro-physiology.
- Development and growth
- Theories of motor control & learning
- Advanced skills in assessment of pediatric, adult and geriatric neuropathological, neuropsychological and neurosurgical conditions.
- Clinical decision-making & evidence based practice to formulate effective assessment and treatment programme.
- Advanced neuro-therapeutic skills for management.
- Outcome measures to assess effectiveness of treatment.
- Assistive technology used for stability and mobility to enhance function
- Intensive care management & early intervention of neurological conditions.
- Management of terminally ill
- Management of progressive neuro-degenerative disorders due to disease and ageing.
- Home programme and counseling of care-takers, genetic counseling.
- Evaluation of disability
- Legislation and social care.

M. P. Th. (Physiotherapy in Cardiovascular & Pulmonary sciences)

First academic year: Applied Physiotherapeutic – I & II

The programme shall focus on application of following advances in Physiotherapy practice with special reference to Child, Women & Geriatric health care.

- Manual medicine & therapeutic exercise
 - Clinical Biomechanics & Bioengineering
 - Fitness & health promotion Nutrition and diet
- } Applied Physiotherapeutic - I

- Advanced electrotherapeutics
 - Electro Diagnosis
 - Neuro-developmental & neuro-physiological approach
 - Teaching Technology Principles of Ethics \ Administration & Management in Clinical Practice.
- } Applied Physiotherapeutic - II

Second and Third academic year: Advances in Physiotherapy in (Specialty) I & II

- Anatomy and Physiology of Cardiovascular & Pulmonary system - Changes occurring with Growth and Development.
- Patho-physiology of Cardiopulmonary system.
- Biomechanics of Cardio- Pulmonary system
- Principles of Exercise Physiology in health & disease.
- Assessment of Physical and functional capacity.
- Clinical decision making skills in functional diagnosis & management of cardiovascular pulmonary dysfunction in neonates, pediatrics, adult, women and geriatrics in intensive care units.
- Outcome measures to assess effectiveness of treatment.
- Peripheral vascular dysfunction assessment and management.
- Management of the critically ill.
- Cardio-Pulmonary Rehabilitation
- Ergonomics in Cardiopulmonary dysfunction
- Risk stratification, Prevention and health promotion
- Cardio-Pulmonary fitness training and disability evaluation.

M.P.Th.(Physiotherapy in Community Medical Sciences)

First academic year: Applied Physiotherapeutic – I & II

The programme shall focus on application of following advances in Physiotherapy practice with special reference to Child, Women & Geriatric health care.

- Manual medicine & therapeutic exercise
 - Clinical Biomechanics & Bioengineering
 - Fitness & health promotion Nutrition and diet
- } Applied Physiotherapeutic - I

- Advanced electrotherapeutics
 - Electro Diagnosis
 - Neuro-developmental & neuro-physiological approach
 - Teaching Technology Principles of Ethics \ Administration & Management in Clinical Practice.
- } Applied Physiotherapeutic - II

Second and Third academic year: Advances in Physiotherapy in (Specialty) I & II

- Applied anatomy, physiology and biomechanics related to women's health, mother & child, geriatric, sports & industrial health.
- Clinical decision-making skill in assessment & management of dysfunction related to community health.
- Principles of fitness training for health promotion in community
- Evidence based practice.
- Advances in disaster management.
- Principles of Community based rehabilitation.
- Ergonomic considerations with special emphasis to Industry
- Assistive Technology used for Stability & Mobility to enhance function.
- Role of Physiotherapist as a member in Disaster Management team.
- Evidence Based Practice in Community Health.
- Health care in the Community – Principles & delivery systems
- Regulatory Agencies & Legal Issues.

1. Scheme of Examination: -

Sr. No.	Passing Head	Total Marks	Minimum Marks Required for Passing
1.	Theory	400	200
2.	Practical including viva voce	400	200
	Total Marks	800 Marks	400 Marks

i) A Candidate must pass in two heads i.e. Theory and Practical, Clinical including Oral (viva) Separately at the same time. In Theory examination candidate must obtain 50% marks in theory. As for as individual paper is concerned a candidate must obtain minimum 40 Marks in each Theory paper but a candidate should obtain at least 50% marks to pass theory exam.

ii) In Practical, Candidate must obtain 50% of Total Marks to pass practical examination.

2. Theory Examination: -

1. There shall be four Theory Papers of 100 Marks.
2. Each paper shall be of 3 hours duration.
3. All questions are compulsory.

Q. No.	Nature of Question	Distribution of Marks	Total Marks
1.	Long Answer Questions	1 X 30	30 Marks
2.	Long Answer Questions	1 X 30	30 Marks
3.	Solve any four out of five SAQ	4 X 10	40 Marks

Paper wise distribution of topics is as given below: -

Paper No.	Topic/Nomenclature
Paper I	Applied Physiotherapeutics – I
Paper II	Applied Physiotherapeutics – II
Paper III	Advances in Physiotherapy in (Speciality) - I
Paper IV	Advances in Physiotherapy in (Speciality) - II

* Paper III and IV should be set by same paper setter / moderator to avoid repetition of topics.

3. Practical /Clinical Examination: -

It should be aimed for assessing competence and skills of techniques and procedures as well as testing students ability to make relevant and valid observations, interpretations and inference, laboratory or experimental work relating to his/her subject.

A) PRACTICAL SCHEME: -

Sr. No.	Heading	Marks
1.	Speciality Case: - (One case in respective speciality will be given for physiotherapy evaluation and treatment plan.) i) Musculoskeletal conditions- Any orthopedic case (cold ortho or fracture case) ii) Neuro Sciences- A case of Neuropathological Adult/Paediatric/ Geriatrics iii) Cardio respiratory Conditions- Any Medical or surgical case. iv) General and community based rehabilitation – Any case of Physically disabled because congenital or acquired disorder.	150 Marks
2.	Two short cases: – 50 Marks each (one must be other than speciality) i) One case of surgical condition e.g. post operative general/cardiac/Thoracic/Ortho surgery ii) One case of medical Condition e.g. any case of chest/cardiac/Neuro/General Medicine.	100 Marks
3.	Spots: - 10 spots 5 Marks each. e.g. electro diagnosis, orthotic prosthetic device, pulmonary function test, electro cardiogram, X-Ray, Arterial Blood Gas Analysis etc.	50 Marks
4.	Viva voce: - Based on Dissertation	50 Marks
5.	Micro Teaching (Teaching of any topic or section in elective subject)	50 Marks
	Total	400 Marks

B) No. Of Candidate: - The Maximum No. Of candidate to be examined in clinical/Practical and oral shall not exceed 8 per batch of two days examination.

C) Criteria for examiner : - All the Post Graduate Examiners shall be recognized Post Graduate Teachers holding recognized Post Graduate qualifications in the subject concerned with minimum 3 yrs P.G. Teaching experience.

D) Number of Examiners for Practical: -

There shall be four examiners.

Two Internal and two external.

Internal 1 : - Same college.

Internal 2 : - Out side the college within same old University Jurisdiction area.

External 1 : - Out side old University Jurisdiction area within state.

External 2 : - Out of State.

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 post graduate 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, critical analysis, comparison of results and drawing conclusion.
3. Every candidate shall submit to the Registrar 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.
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) approves the Topic.
7. Thesis (Whole) submitted after 30 months or 6 months before final examination.
8. The dissertation should be written under the following headings:
 - (i) Introduction
 - (ii) Aims or Objectives of study
 - (iii) Review of Literature
 - (iv) Material and Methods
 - (v) Results
 - (vi) Discussion
 - (vii) Conclusion
 - (viii) Summary
 - (ix) Tables
 - (x) 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") 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. Five copies of dissertation along with CD (Softcopy) 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. Guide: - The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as per M.U.H.S. Teachers in a Physiotherapy college/ institution having a total of ten years teaching experience out of which at least five years teaching experience as lecturer or Assistant Professor gained after obtaining Post Graduate qualification

OR

B.P.Th / B.Sc. (P.Th.) or equivalent degree and recognized as post graduate teacher from erstwhile University subject to completion of Post Graduate degree in Physiotherapy within next 5 (five) years i.e. before June 2011.

13. Change of guide: - In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the university.
14. Thesis shall be examined by a minimum of 3 examiners, (Appointed by University) one internal and Two external who shall be examiners for clinical / practical also.
15. At least two examiners shall approve the same otherwise candidate will loose his 6 months.
16. Result of thesis declared ordinarily after 33 months.
17. Candidate allows to appear for the exam only after acceptance of thesis.