



छत्रपति शाहू जी महाराज विश्वविद्यालय, कानपुर

CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY, KANPUR

(पूर्ववर्ती कानपुर विश्वविद्यालय कानपुर)

Formerly Kanpur University, Kanpur – 208024

A Documentary Support

*For*

*Matric No. – 1.1.1*

**Programme Outcomes & Course Outcomes**

*Under the*

**Criteria - I**

**(Curriculum Design and Development)**

**Key Indicator - 1.1**

*In*

**Matric No. – 1.1.1**

**Master of Physiotherapy (orthopaedics)**

  
Co-ordinator  
Internal Quality Assurance Cell  
CSJM University, Kanpur

  
(Registrar)  
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REGISTRAR  
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KANPUR

# **Master of Physiotherapy (M.P.T.)**

## **Program outcomes**

1. Course work includes exercise physiology, principles of physiotherapy practice, electrophysiology and electives. The student will be skilled in treatment planning, management, administration of physiotherapy treatment and provision of patient support.
2. Acquire in-depth knowledge of structure and function of human body related to the respective branch of specialty.
3. Acquire the in-depth knowledge of movement dysfunction of human body, cause thereof principles underlying the use of physiotherapeutic interventions for restoring movement dysfunction towards normalcy.
4. Demonstrate skill in Physical & Functional diagnosis pertaining to patient under his/her care.
5. Demonstrate ability to critically appraise recent physiotherapeutic and related literature from journals & adopt diagnostic & therapeutic procedures based on it.
6. The student will also perform independent research within the department and help the department and the team for treatment planning of the patient.
7. PT post-graduate is encouraged to pursue further qualification to attain senior position in the professional field, also to keep abreast with the advance and new technology the professional should opt for continuous professional education credits offered by national and international institutes.
8. 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.
9. 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.
10. Demonstrate an expertise in evidence-based skill in the management disorders including movement dysfunction in concerned specialty.

## **Program Specific Outcomes**

At the completion of this course, the student should be –

- Able to execute all routine physiotherapeutic procedures with evidence based practice.
- Able to be a prominent member of the multidisciplinary physiotherapy team and treat all the conditions which need physiotherapeutic procedures.
- Able to provide adequate knowledge about the treatment procedures and its benefit.
- Able to transfer knowledge and skills to students as well young professionals.
- Able to perform independent physiotherapy assessment and treatment for patients.
- Able to undertake independent research in the field of physiotherapy.

- Learn multidisciplinary practice skills.
- Able to practice and assess patient independently.
- On successful completion of M.P.T programme, the Physiotherapist professional will be able to take up physiotherapy teaching assignments independently for undergraduate teaching programme. He / She will be able to prepare project proposal with selected research design and interpret the evaluated outcome measures (using sound data processing techniques and statistical methods). He/she will be able to practice in his / her specialty area with advanced knowledge and skills.

**Master in Physiotherapy (MPT) First Year**  
**Review of Basic Physiotherapeutics**  
**Subject Code : MPT-101**  
**Min. Hrs -: 180 Hrs.**

**COURSE OBJECTIVE:**

- a) To have a thorough understanding of Exercise therapy, electrotherapy, kinematics and kinetics in motion.
- b) To have an understanding of structure and function of biological tissues involve in the human motion.
- c) To evaluate movement and estimate force on human structure during exercise.
- d) To understand the functioning operating physiological mechanism and uses of biomechanical instruments.

**COURSE OUTCOMES:**

- a) Students will be able to understand and apply concepts and terminology with in the area of Exercise therapy, electrotherapy and biomechanics.
- b) Students will be able to describe how biomechanical factors influence motion in exercise.
- c) Demonstrate and understanding of statics, kinematics and kinetics in human motion.
- d) Apply a broad and coherent knowledge of the underlying principles and concepts of biomechanics particularly in the field of kinematics and kinetics as applied to human and projectile motion.
- e) Safely and effectively use biomechanics instrumentation and equipment to record and asses human and object motion.
- f) Record, extract and analyze key information about human and object.

**Master in Physiotherapy (MPT) First Year**  
**Advanced Physiotherapeutics**  
**Subject Code : MPT-102**  
**Min. Hrs -: 180 Hrs.**

**COURSE OBJECTIVE:**

- a) To have a thorough understanding of Advance manual therapy approaches.
- b) To have an understanding of structure and function of biological tissues involve in the human motion.
- c) To evaluate movement and estimate force on human structure during exercise.
- d) To understand the functioning operating physiological mechanism and uses of biomechanical instruments.

**COURSE OUTCOMES:**

- a) Students will be able to understand and apply concepts and terminology with in the area of manual therapy.
- b) Students will be able to describe how manual therapy.
- c) Apply a broad and coherent knowledge of the underlying principles and concepts of biomechanics particularly in the field of kinematics and kinetics as applied to human and projectile motion.
- d) Safely and effectively use biomechanics instrumentation and equipment to record and asses human and object motion.
- e) Record, extract and analyze key information about human and object.

**Master in Physiotherapy (MPT) First Year**  
**Research Methodology and Biostatistics**  
**Subject Code : MPT-103**  
**Min. Hrs -: 100 Hrs.**

**Course Objective:**

- a) To have a thorough understanding of presenting supporting evidences and how to conduct research.
- b) To have an understanding of model of research and biostatistics.
- c) To evaluate every procedure on the basis of evidences.
- d) To understand the data analysis procedure and their significance in research.

- e) To have a thorough understanding of presenting supporting evidences and how to conduct statistical analysis.
- f) To have an understanding of model of biostatistics.
- g) To evaluate every procedure on the basis of evidences.
- h) To understand the data analysis procedure and their significance in research.

**Course Outcomes:**

- a) Students will be able to understand and apply concepts and terminology with in the area of Research.
- b) Students will be able to describe research design and application of different methods to analyze the data collected to conduct and complete the research
- c) Students will be able to understand and apply concepts and terminology with in the area of biostatistics.
- d) Students will be able to describe research design and application of different methods to analyze the data collected to conduct and complete the research. .
- e) Record, extract and analyze key information about human and object.

**Master in Physiotherapy (MPT) First Year**  
**Practical**  
**Subject Code : MPT-104**  
**Min. Hrs -: 200 Hrs.**

**Course outcome**

**The student must be able to do**

- Assessment, evaluation and diagnosis
- Practice and application of physiotherapeutic system in hospital/centre/ institution.
- Application of advance physiotherapeutic maneuvers like manipulation (maitland, cyriax, mulligan etc.) and various neurological interventional concepts (bobath, NDT etc.).
- Clinical reasoning, decision making, evidence based practice and recording system.
- Short case from area of elective to assess investigative and diagnostic skills
- Short case from area of elective to assess patient management skills

**Master in Physiotherapy (MPT) First Year**

**Clinical Lab Practices**  
**(Common to all specialization/discipline)**  
**Min. Hrs -: 440 Hrs.**

**Course outcomes**

**Post graduate students must know :**

- Assessment, evaluation and diagnosis.
- Practice and application of physiotherapeutic system in hospital/ institution.
- Application of advance physiotherapeutic maneuvers like manipulation and various neurological interventional concepts.
- Clinical reasoning, decision making, evidence based practice and recording system.

**Master in Physiotherapy (MPT) First Year**  
**Teaching Skills/ Seminars/Symposia/Journal Club etc.\***  
**(Common to all specialization/discipline)**  
**Min. Hrs -: 260 Hrs.**

**(a) Teaching Skills**

Candidates should be encouraged to teach undergraduate students if any. This performance will be based on assessment by the faculty members of the department and from feedback from the undergraduate students.

**(b) Seminar/Symposia**

- Seminars /recent advance presentation will be held every week, however, its timings are subject to clinical schedule. Topics must be well researched and must include common knowledge, recent advances, analysis and references.
- PG students should present minimum of two seminars (One in general and one in elective area) and Internal Assessment marks will depend on better topic selection and presentation.

**(c) Journal Review Meeting (Journal Club):**

The ability to do literature search, in depth study, presentation skills, and use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting.

**(d) Work diary / Log Book**

Every student shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical practice, if any conducted by the candidate by the student.

**Master in Physiotherapy (MPT) Second Year**  
**Pedagogy in Physiotherapy Education**  
(Common to all specialization/discipline)  
**Subject Code : MPT-201**  
**Min. Hrs -: 100 Hrs.**

**Objective:**

On completion of the study of this subject the student should be able to

- Understand the Dynamics of teaching & learning
- Plan effective teaching sessions in Physiotherapy

**COURSE OUTCOME:** On completion of this subject students should have the opportunity to:

- a) Strengthen the basic fundamental basis of assessment and diagnosis and postulate this knowledge in clinical practice.
- b) Analyses critical evaluate the patient conditions and formulation of accurate diagnosis.

Acquire a thorough understanding of management and educational methodology in physiotherapy which can be applied in clinical practice.

**Master in Physiotherapy (MPT) Second Year**  
**Administration Management & Ethical Issues**  
(Common to all specialization/discipline)  
**Subject Code : MPT-202**  
**Min. Hrs -: 100 Hrs.**

**Objective:**

On completion of the study of this subject the student should be able to

- Understand the basic issues of Management & Administration
- Practice as an informed professional on Legal & ethical issues

**COURSE OUTCOME:** On completion of this subject students should have the opportunity to:

- a) Strengthen the basic fundamental basis of management and administration and legal and ethical issues.
- b) Acquire a thorough understanding of management and educational methodology in physiotherapy which can be applied in clinical practice.



**Master in Physiotherapy (MPT) Second Year**  
**Orthopaedic Disorders and Management-I**  
**Subject Code : MPT-2030**  
**Min. Hrs -: 180 Hrs.**

**Objective:**

On completion of the study of this subject the student should be able to

- Correlate the clinical manifestations to the organ of dysfunction of the musculoskeletal system
- To understand the Conservative & Surgical management of the musculoskeletal conditions as relevant to physiotherapy.

**COURSE OUTCOME:** On completion of this subject students should have the opportunity to:

1. Strengthen the basic fundamental basis of assessment and diagnosis and postulate this knowledge in clinical practice.
  2. Analyses critical evaluate the patient conditions and formulation of accurate diagnosis.
- Acquire a thorough understanding of cardiopulmonary conditions which can be applied in clinical practice.

**Master in Physiotherapy (MPT) Second Year**  
**Orthopaedic Disorder & Management-II**  
**Subject Code : MPT-2040**  
**Min. Hrs -: 180Hrs.**

**OBJECTIVE:**

On completion of the study of this subject the student should be able to

- Correlate the clinical manifestations to the organ of dysfunction of the Musculoskeletal system
- To understand the conservative & surgical management of the Musculoskeletal conditions as relevant to physiotherapy.

**COURSE OUTCOME:** On completion of this subject students should have the opportunity to:

1. Strengthen the basic fundamental basis of assessment and diagnosis and postulate this knowledge in clinical practice.
  2. Analyses critical evaluate the patient conditions and formulation of accurate diagnosis.
- Acquire a thorough understanding of advance concepts of Physiotherapy including Manual therapy and electrotherapy which can be applied in clinical practice.

**Master in Physiotherapy (MPT) Second Year  
Practical (Common to all specialization/discipline)**

**Subject Code : MPT-205**

**Min. Hrs -: 200 Hrs.**

**Post graduate students must know:**

- Assessment, evaluation and diagnosis.
- Practice and application of physiotherapeutic system in hospital/ institution.
- Application of advance physiotherapeutic maneuvers like manipulation and various interventional concepts.

Clinical reasoning, decision making, evidence based practice and recording system

**Master in Physiotherapy (MPT) Second Year  
Dissertation (Common to all specialization/discipline)**

**Subject Code : MPT-206**

Every candidate pursuing MPT degree course is required to carry out research 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 dissertation.

**Master in Physiotherapy (MPT) Second Year**

**Clinical Lab Practices**

**(Common to all specialization/discipline)**

**Min. Hrs -: 440 Hrs.**

**Post graduate students must know :**

- Assessment, evaluation and diagnosis.
- Practice and application of physiotherapeutic system in hospital/ institution.
- Application of advance physiotherapeutic maneuvers like manipulation and various neurological interventional concepts.
- Clinical reasoning, decision making, evidence based practice and recording system.

**Master in Physiotherapy (MPT) Second Year**  
**Teaching Skills/ Seminars/Symposia/Journal Club etc.**  
**(Common to all specialization/discipline)**  
**Min. Hrs -: 260 Hrs.**

**(a) Teaching Skills**

Candidates should be encouraged to teach undergraduate students if any. This performance will be based on assessment by the faculty members of the department and from feedback from the undergraduate students.

**(b) Seminar/Symposia**

- Seminars /recent advance presentation will be held every week, however, its timings are subject to clinical schedule. Topics must be well researched and must include common knowledge, recent advances, analysis and references.
- PG students should present minimum of two seminars (One in general and one in elective area) and Internal Assessment marks will depend on better topic selection and presentation.

**(c) Journal Review Meeting (Journal Club):**

The ability to do literature search, in depth study, presentation skills, and use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting.

**(d) Work diary / Log Book**

Every student shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical practice, if any conducted by the candidate by the student.



**Master in Physiotherapy (MPT) Second Year**  
**Traumatology & Medical Conditions**  
**Subject Code : MPT-203S**  
**Min. Hrs -: 180 Hrs.**

**Course Objective**

- Analyze and interpret various sports injuries/pathomechanics and apply appropriate therapeutic techniques on and off the field.
- Devise/modify various exercises for sports personnel and prevent injuries by applying proper dynamic during play.
- Analyse the effect of therapeutic modalities, indicators and contraindications and precaution to ensure safety.
- Demonstrate skills of assessment and management in both acute and long standing injury conditions.
- Carry out research in a particular aspect /specific event based on biomechanical/physiological and other variables.

**COURSE OUTCOME:** On completion of this subject students should have the opportunity to:

1. Strengthen the basic fundamental basis of assessment and diagnosis and postulate this knowledge in clinical practice.
2. Analyses critical evaluate the patient conditions and formulation of accurate diagnosis.

Acquire a thorough understanding of traumatology and medical conditions and physiotherapy management which can be applied in clinical practice.

**Master in Physiotherapy (MPT) Second Year**  
**Fundamental in sports & Rehabilitation**  
**Subject Code : MPT-204S**  
**Min. Hrs -: 180 Hrs.**

**COURSE OBJECTIVE:** On completion of the subject, students will have the opportunity to develop the skills of intellect decision-making. It also provides an extension of their communication skills to articulate the evidence based acquaintance and clinical knowledge for assessment and diagnosis of patients. It is a prospect to the students for the application of the research and professional information to novel situations.

**COURSE OUTCOME:** On completion of this subject students should have the opportunity to:

1. Strengthen the basic fundamental basis of assessment and diagnosis and postulate this knowledge in clinical practice.
2. Analyses critical evaluate the patient conditions and formulation of accurate diagnosis.

A thorough understanding of on field and off field assessment criteria, which can be applied in clinical practice.