

Jamia Hamdard

Deemed to be University

Accredited in 'A' Grade by NAAC

Declared to be designated as Institute of Eminence (IoE) by MHRD, GOI



PROGRAMME NAME: MASTER OF PHYSIOTHERAPY (NEUROLOGY)



DEPARTMENT OF PHYSIOTHERAPY

SCHOOL OF NURSING SCIENCES AND ALLIED HEALTH

JAMIA HAMDARD (Deemed to be University)

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New Delhi 110 062

www.jamiahamdard.edu

**PROGRAMME NAME : MASTER OF
PHYSIOTHERAPY (NEUROLOGY)**

PROGRAMME CODE : 517

ACADEMIC SESSION OF INTRODUCTION OF PROGRAMME
: **(2021-2022)**

SCHOOL NAME : SCHOOL OF NURSING SCIENCES AND
ALLIED HEALTH (**SNSAH**)

DEPARTMENT NAME : DEPARTMENT OF PHYSIOTHERAPY

APPROVAL DATE OF THE BOARD OF STUDIES (B.O.S.) MEETING
FOR THE PRESENT SYLLABUS

B.O.S MEETING WAS HELD ON 13 APRIL 2022

APPROVAL DATE AND NUMBER OF ACADEMIC COUNCIL OF
MEETING FOR THE PRESENT SYLLABUS

160 STANDING COMMITTEE HELD ON 26.7.2022

NAME OF THE DEPARTMENT/CENTRE: DEPARTMENT OF PHYSIOTHERAPY

Vision Statement: To be recognized as one of the leading Physiotherapy institutes of higher learning by providing value-based education, facilitating research and health care services to rural and urban communities, keeping in view the global needs.

Mission Statements:

MS1: Develop competency in the field of Physiotherapy by Imparting and disseminating evidence-based knowledge.

MS 2: Fostering research and development in the emerging areas of Physiotherapy while adhering to the ethical standards.

MS 3: Generating awareness of physiotherapy through outreach programmes.

MS 4: To gain recognition via collaboration in the global arena by providing quality healthcare thus improving quality of Life.

MS 5: Generating opportunities for faculties and students thus keeping pace with the advances related to physiotherapy.

QUALIFICATION DESCRIPTORS (QDs)

Upon the completion of Academic Programme (MPT Neurology), students will be able to:

QD-1: Acquire systematic, extensive and coherent knowledge and skill in Physiotherapy assessment and management of neurological conditions and its applications including critical understanding of established theories, principles and concepts, knowledge of advanced and emerging issues, recent advances and research in Physiotherapy evaluation and treatment procedures pertaining to neurological disorders.

QD-2: Demonstrate comprehensive knowledge and skills required for identifying problems and issues, collection of relevant quantitative and/or qualitative data related to central nervous system disorders, peripheral nervous system impairment of the body.

QD-3: Apply knowledge and transferable skills in areas related to central nervous system disorders, peripheral nervous system disease for identifying problems, collection of relevant quantitative and /or qualitative data, its analysis and evaluation using appropriate methodologies for formulating evidence-based solutions and inferences.

QD-4: Address self-learning needs related to evidence based practice in current and emerging areas of Neuro Physiotherapy , use research and professional material, apply knowledge to new concepts and unfamiliar areas and seek well defined solutions in real life situations.

QD-5 Demonstrate empirical and research-based knowledge and transferable skills in the field of Neuro Physiotherapy for patient care and presenting oneself as an employable candidate in various healthcare settings including wellness, sports and fitness centres creating employment opportunities for professional learning needs based on research and development work for the community .

Mapping Qualification Descriptors (QDs) with Mission Statements (MS)

	MS-1	MS-2	MS-3	MS-4	MS-51
QD-1	3	2	2	1	1
QD-2	3	3	3	3	2
QD-3	3	3	2	3	2
QD-4	3	3	2	2	2
QD-5	3	2	3	3	3

PROGRAM LEARNING OUTCOMES (PLOs) (12)

After completing this course, the students should be able to:

PLO-1	Physiotherapy Knowledge	To demonstrate and apply physiotherapy knowledge and skills for the physiotherapeutic management of various medical and surgical conditions.
PLO-2	Communication Skills	To demonstrate and apply appropriate behavioral skills with humanitarian approach for communication with patients, relatives, co-professionals and community.
PLO-3	Problem analysis with the development of solution	To demonstrate and apply the physiotherapy evaluation skills by co relating with the clinical subjects for diagnosis of the patient problem and design an appropriate physiotherapeutic treatment strategy.
PLO-4	Evidence-based practice	To demonstrate and apply physiotherapy knowledge and skills on the basis of empirical evidence.
PLO-5	Development of research acumen	To demonstrate ability of critical thinking, define problems, formulate hypotheses and design, execute and report the results of experiments with conclusions.
PLO-6	Individual or team work	Demonstrate the ability to work in an efficient manner individually as well as in diverse groups for providing best treatment strategies for the patients and community.

PLO-7	Digital literacy	To demonstrate and apply knowledge of basic computer applications for clinical and research purpose including data management, data storage and generate data bases.
PLO-8	Cross cultural integration	To acquire knowledge of attitudes, beliefs and socio-cultural values relevant to a particular society and nation with global perspectives to engage with diverse groups effectively.
PLO-9	Ethics	To demonstrate moral/ethical values in conduct, awareness of ethical issues related to patient care, work practices, refraining from malpractice, unethical Behaviour, falsification, plagiarism, misinterpretation of data, non-adherence to intellectual property rights, adhering to truthful, unbiased actions in all aspects of work without discrimination based on age, race, gender, sexual preference, disease, mental status, lifestyle, opinions or personal values.

PLO-10	Physiotherapy patient evaluation and management	To select appropriate clinical examination and investigation for common clinical conditions and analyze critically the findings along with planning appropriate rehabilitation goals and designing evidence-based management protocols.
PLO-11	Leadership skills	Students must demonstrate ability for task allocation, organization of task elements, setting direction, formulating an inspiring vision, team building, to achieve a vision,

		engaging, knowledge and respect individual values and opinions in order to foster harmonious working relationships with colleagues, peers, and patients.
PLO-12	Life-long learning	Students must demonstrate ability to acquire knowledge and skills through ongoing learning, participation in continuous education programs, engaging in self-paced, self-directed learning aimed at personal development, meeting social and cultural objectives, skill development, adapting to changing environment and workplace requirements and challenges.

PROGRAM SPECIFIC OUTCOMES (PSOs)

After completing this Course, the students should be able to:

PSO-1: Demonstrate comprehensive knowledge and skills concerned with Neuro physiotherapy enabling judicious treatment related decision making while evaluating the reliability and relevance of evidence.

PSO-2 : Express thoughts and ideas effectively in writing and orally, communicate with others using appropriate media, confidently share one's views in a clear and concise manner to different groups.

PSO-3: Demonstrate a sense of inquiry and capability for asking relevant/appropriate questions; the ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data; plan, execute and report the results of an experiment or investigation.

PSO-4: Demonstrate ability to work effectively with diverse teams, facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause.

Mapping of Program Learning Outcomes (PLOs)

With Qualification Descriptors (QDs)

	QD-1	QD-2	QD-3	QD-4	QD-5
PLO-1	3	3	2	3	3
PLO-2	3	3	2	3	3
PLO-3	2	2	3	3	3
PLO-4	2	3	3	3	3
PLO-5	2	3	3	3	3
PLO-6	2	2	3	3	2
PLO-7	3	3	3	3	3
PLO-8	2	2	3	3	2
PLO-9	3	3	3	3	3
PLO-10	3	3	3	3	3
PLO-11	3	3	2	2	3
PLO-12	3	3	3	3	2

	QD-1	QD-2	QD-3	QD-4	QD-5
PSO-1	3	3	3	3	3
PSO-2	3	3	3	3	3
PSO-3	2	2	3	3	3
PSO-4	2	2	3	3	3

**MASTER
OF
PHYSIOTHERAPY**

(Neurology)

BYE-LAWS

ANNUAL SYSTEM

**DEPARTMENT OF PHYSIOTHERAPY
SCHOOL OF NURSING SCIENCES AND ALLIED HEALTH**

**JAMIA HAMDARD
(DEEMED TO BE UNIVERSITY)**

MPT NEUROLOGY FIRST YEAR

S.No	Subjects	Course Objectives	Course Outcomes
1	<p>BASIC HEALTH SCIENCES</p> <p>MTN161</p>	<p>This course covers the topics related to advances in biomedical sciences with particular emphasis on anatomical, physiological, pathological and radiological advances.</p> <p>This course aims to study the recent advances in Biomedical Sciences.</p>	<p>On completion of the study of this Course the student should be able:</p> <ul style="list-style-type: none"> • To comprehend the knowledge of the structure & function of the human body in relevance to Physiotherapy. • To correlate and apply the knowledge gained, in understanding and analysing the dysfunction of the human body.
2	<p>MEDICAL AND SURGICAL MANAGEMENT OF DISORDERS OF THE NEUROLOGICAL SYSTEM</p> <p>MTN162</p>	<p>The course covers topics related to pathophysiology, clinical manifestation, conservative and surgical management of neurological disease and disorders</p> <p>The course should enable the student to develop a detailed concept about different neurological diseases & disorders and its medical and surgical management.</p>	<p>On completion of the study of this Course the student should be able to:</p> <ul style="list-style-type: none"> • The students should be able to demonstrate adequate knowledge about management of people with neurological disorders and neurological diseases.

3	<p>ADVANCED DIAGNOSTICS AND ELECTROTHERAPEUTICS</p> <p>MTN163</p>	<p>The course will enable the student to acquire information related to recent advancements in diagnostic procedures and updates in physiotherapy treatment with respect to exercise interventions and electrotherapeutic modalities</p>	<p>On completion of the study of this course the student should be able to</p> <ul style="list-style-type: none"> • Understand theoretical concepts and physiological effects of electrotherapeutic modalities at cellular level. • Identify recent advances in pain models. • Apply recent knowledge and skill related to exercise therapy interventions and electrotherapeutic modalities in different physiotherapy conditions for patient recovery.
4	<p>RESEARCH METHODOLOGY AND BIOSTATISTICS</p> <p>MTN164</p>	<p>The course covers the concept of research methodology, biostatistics and computer applications pertaining to research advancements related to physical therapy.</p>	<p>On completion of the study of this course the student should be able to</p> <ul style="list-style-type: none"> • To understand the methods of research process and design so as to effectively plan research. • To acquire skills of critically reviewing the literature. • To understand the statistical measures used in the analysis and interpretation of research data. • To understand and familiarize with software and resources used in statistical analysis of research data.

5	SEMINAR ON CLINICAL ISSUES MTN165	<p>The course will serve as a platform for students to acquire in depth understanding and skills in development and presentation of seminars on various topics related to neurological physiotherapy</p>	<p>On completion of the study of this course the student should be able to</p> <ul style="list-style-type: none"> • Demonstrate adequate knowledge and skill in seminar presentation. • To develop an evidence based presentation on the allocated topic. <p>Debate contentious issues in the efficacy of physiotherapeutic management</p>
6	PHYSIOTHERAPY I: THERAPUETIC PRINCIPES AND PRACTICE IN NEUROLOGIC PHYSIOTHERAPY MTN166	<p>The course covers topics on various school of thoughts for Evaluation and examination of a patient with neurological diseases and neurological disorders</p> <ul style="list-style-type: none"> • General outline of electro diagnostic procedures interpretations and prognosis in different neurological conditions • Principles of Physiotherapy at various stages of Rehabilitation, establishing the goals of rehabilitation and ADL training 	<p>On completion of the study of this course the student should be able to</p> <ul style="list-style-type: none"> • Relate the theories of Motor control and Motor learning during the planning of rehabilitation for various neurological conditions. • To utilize the knowledge in understanding the assessment and physiotherapy management of Spinal Cord Injury and various Muscular Disorders • To demonstrate the knowledge in physiotherapy assessment and management of Peripheral and Cranial nerve disorders • To illustrate the physiotherapy assessment and management of Congenital, Autoimmune and Infectious disorders • Relate clinical signs and symptoms for the diagnosis and management of Cerebro-vascular disorders and Head Injury Analyze Psychomotor Physiotherapeutic Approaches

7	<p>PHYSIOTHERAPY-I (Lab Hours)</p> <p>THERAPEUTIC PRINCIPLES AND PRACTICE IN NEUROLOGIC PHYSIOTHERAPY</p> <p>MTN167</p>	<p>The course covers topics related to hands on training in physiotherapy assessment and management of different diseases and disorders of neurological system.</p> <p>The course should enable the student to acquire in-depth understanding and skill in physiotherapy assessment and management of disease and disorders of neurological system.</p>	<p>On completion of the study of this Course the student should be able to</p> <ul style="list-style-type: none"> • The student should be able to interpret and differentiate between various diagnostic tools used for therapeutic plan, take history of the conditions of patients. • They should have knowledge of all the physiotherapeutic intervention pertaining to the patient. • They should be able to evaluate and plan physiotherapy treatment: its presentation and documentation of all the conditions
8	<p>EXERCISE PHYSIOLOGY</p> <p>MTN168</p>	<p>This course aims to deliver scientifically based standards on exercise testing and prescription.</p> <p>It prepares students through the process of selecting and administering fitness assessments, using Guidelines to interpret results, and drafting an exercise prescription that is in line with Guideline's parameters.</p> <p>This course should deliver the concepts in exercise physiology and prepare the students to test and prescribe suitable exercises to different group of population.</p>	<p>On completion of the study of this Course the student should be able to</p> <ul style="list-style-type: none"> • To select and administer fitness assessments, using guidelines to interpret results, and drafting an exercise prescription to different populations.

9.	<p>CLINICAL TRAINING</p> <p>MTN169</p>	<ul style="list-style-type: none"> • The course covers topics related to hands on training in physiotherapy assessment and management of trauma, different diseases, disorders of the neurological system. <p>The course should enable the student to acquire in-depth understanding and skill in physiotherapy assessment and management of disease and disorders.</p>	<ul style="list-style-type: none"> • The student should be able to interpret and differentiate between various diagnostic tools used for therapeutic plan, take history of the conditions of patients. • They should have knowledge of all the physiotherapeutic intervention pertaining to the patient. <p>They should be able to evaluate and plan physiotherapy treatment: its presentation and documentation of all the conditions</p>
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MPT (NEUROLOGY) – SECOND YEAR

S.No.	Subject	Course Objective	Course Outcome
1	ETHICS MANAGEMENT AND EDUCATION MTN261	On completion of the course the student should be able to understand the dynamics of teaching & learning, plan effective teaching sessions in physiotherapy, the basic issues of physiotherapy management & administration and practice as an informed professional on Legal & ethical issues.	<p>PHYSIOTHERAPY ETHICS</p> <ul style="list-style-type: none">• The student should be able to demonstrate adequate knowledge and skill in ethical principles of physiotherapy.• Be aware of legal rights and duties as per the laws of Physiotherapy Governing bodies. <p>MANAGEMENT</p> <ul style="list-style-type: none">• Apply managerial skills in planning, implementation and administration of clinical activities.• To document comprehensive and accurate health records. <p>PEDAGOGY IN PHYSIOTHERAPY EDUCATION</p> <ul style="list-style-type: none">• To be able to understand and apply different teaching – learning methods for imparting physiotherapy education.• Describe the concept of learning evaluation and curriculum development.• Execute clinical teaching and awareness.

2	BIOMECHANICS AND KINESIOLOGY(THEORY) MTN262	<p>The course should enable the student to acquire in depth knowledge in understanding the biomechanics and kinesiology.</p>	<p>On completion of the study of this course the student should be able to</p> <ul style="list-style-type: none"> • identify and apply the principles of biomechanics and kinesiology in understanding the normal functioning of the human body. • To identify and apply the principles of biomechanics in understanding pathomechanics of various conditions. • To understand and apply the applications of movement dysfunction into therapeutic exercise prescription. • To use these principles in managing various clinical conditions.
3	BIOMECHANICS AND KINESIOLOGY (LAB HOURS) MTN263	<p>The course should enable the student to attain in-depth knowledge and skill in techniques used in biomechanics and kinesiology.</p>	<p>The student should be able to demonstrate skill in techniques used in in biomechanics and kinesiology.</p>
4	SEMINAR ON CLINICAL ISSUES MTN264	<p>The course should enable the student to acquire in-depth understanding and skill in seminar presentation in topics of neurological physiotherapy.</p>	<p>The student should be able to demonstrate adequate knowledge and skill in seminar presentation.</p> <ol style="list-style-type: none"> 1. The student shall be allocated a topic by the concerned teacher. 2. The student have to make a well researched presentation on the allocated topic.

5	DISSERTATION MTN 265	<p>The course should enable the student to acquire in-depth knowledge and skill in independent dissertation writing.</p>	<p>Students should be able to develop a research project and conduct the dissertation writing independently in physiotherapy.</p>
6	PHYSIOTHERAPY II: ISSUES IN MOTOR CONTROL AND MOTOR LEARNING (THEORY) MTN266	<p>The course should enable the student to acquire in-depth knowledge and skill in assessment and physiotherapy management of different neurological conditions.</p>	<p>On completion of the study of this Course the student should be able:</p> <ul style="list-style-type: none"> • To perform a comprehensive and complete Physiotherapy assessment of neurological disorders. • The student should be able to understand fundamentals of motor control and motor learning • To formulate a complete physiotherapy treatment plan of neurological conditions and disorders. • It should equip the student to assess and manage paediatric neurological conditions. • It should provide the student with a brief overview of lifestyle and neurology. • To document systematic, meaningful, accurate written records of the patient.

7	PHYSIOTHERAPY II: ISSUES IN MOTOR CONTROL AND MOTOR LEARNING (LAB HOURS) MTN 267	The course should enable the student to acquire in-depth knowledge about management of people with diseases and disorders of neurology in clinical setting.	The student should be able to demonstrate adequate knowledge and skill in management of people with central nervous system disorders in clinical setting.
8	CLINICAL TRAINING MTN268	The course should enable the student to acquire in-depth understanding, evidence-based practice and skill in physiotherapy assessment and management of disease and disorders of neurological system.	The student should be able to interpret and differentiate between various diagnostic tools used for therapeutic plan, take history of the conditions of patients. They should have knowledge of all the physiotherapeutic intervention pertaining to the patient. They should be able to evaluate and plan physiotherapy treatment: its presentation and documentation of all the conditions.

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