

2. PROGRAM EDUCATION OBJECTIVES (PEOs)

The overall objective of the learning outcome-based curriculum framework (LOCF) for MPT (Musculoskeletal Sciences) are as follows:

PEO No.	Education Objective
PEO 1	Students will be able to apply advanced body of knowledge and clinical competency with evidence based practice in Physiotherapy to achieve professional excellence.
PEO 2	Students will execute high order skills in analysis, critical evaluation and/or professional application of clinical and practical skills in Physiotherapy
PEO 3	Students will practice the profession by ethical norms and communicate effectively with the multi-disciplinary team.
PEO 4	Students will acquire creative proficiency in interpersonal and collaborative skills to identify, and assess problems to formulate and execute the solution.
PEO 5	Students will synthesize research ideas, develop innovations, incubate new concepts and encourage entrepreneurship.
PEO 6	Students will display lifelong learning process for a highly productive career and will be able to relate the concepts of Physiotherapy towards serving the cause of the society.



3. GRADUATE ATTRIBUTES

S No.	Attribute	Description
1.	Professional Knowledge	Critically appraise scientific knowledge and integrate evidence based practice as a health care professional
2.	Clinical / practical skills	Apply clinical / practical skills to prevent, assess and deliver quality health care services
3.	Communication	Displays empathetic and professional communication skills to patients/clients, care-givers, other health professionals and other members of the community
4.	Cooperation/Team work	Ability to practice collaboratively and responsibly with multidisciplinary team members to deliver high quality health care
5.	Professional ethics	Ability to resolve ethical issues and practice the ethical values in the professional life
6.	Research / Innovation-related Skills	Ability to generate and investigate research questions and translate the evidence into clinical practice.
7.	Critical thinking and problem solving	Ability to reason and judge critically and provide solutions for real life situations
8	Reflective thinking	Employ reflective thinking along with sense of awareness of one self and society
9	Information/digital literacy	Excel in use information communication and technology in ongoing learning situations
11.	Multi-cultural competence	Ability to effectively lead and respond in a multicultural society
12.	Lifelong Learning	Demonstrate the ability to acquire knowledge and skills that are necessary for participating in



S No.	Attribute	Description
		learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to demands of work place through knowledge/skill development/reskilling.



4. QUALIFICATION DESCRIPTORS:

- a. Apply (i) Advanced and up-to-date knowledge and excel in the academic field of study as a whole and its applications, and links to related disciplinary areas/subjects of study; including a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of Physiotherapy (ii) Procedural knowledge that creates different types of professionals related to the Physiotherapy, including research and development, teaching and in government and public service; (iii) Professional and communication skills in the domain of Physiotherapy, including a critical understanding of the latest developments, and an ability to use established techniques in the domain of Physiotherapy.
- b. Possess comprehensive knowledge about Physiotherapy, including current research, scholarly, and/or professional literature, relating to essential and advanced learning areas pertaining to the field of study, and techniques and skills required for identifying problems and issues.
- c. Proficient skills in i) identifying the issues in health care needs; ii) collection of quantitative and/or qualitative data relevant to client's needs and professional practice; iii) analysis and interpretation of data using methodologies as appropriate for formulating evidence based hypotheses and solutions.
- d. Apply knowledge, understanding and skills for critical assessment of a wide range of ideas and complex problems and issues relating to Physiotherapy in various specialties.
- e. Communicate efficiently with all stakeholders, and provide relevant information to the members of the healthcare team.
- f. Optimize one's own learning needs relating to current and emerging areas of study, making use of research, development and professional materials based on new frontiers of knowledge.
- g. Execute one's disciplinary knowledge and transferable skills to new/unfamiliar contexts and to identify and analyse problems and issues and seek solutions to real-life problems.

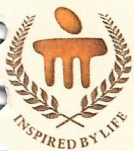


5. PROGRAM OUTCOMES (POs):

After successful completion of Master of Physiotherapy (Musculoskeletal sciences) program, students will be able to:

PO No.	Attribute	Competency
PO 1	Professional knowledge	Apply current evidence and scientific knowledge to work as an expert member of health care system
PO 2	Clinical/ Technical skills	Employ clinical skills to provide quality health care services
PO 3	Team work	Empower the team with shared goals with the interdisciplinary health care team to improve societal health
PO 4	Ethical value & professionalism	Impart ethical values and professionalism within the legal framework of the society
PO 5	Communication	Communicate professionally with the multidisciplinary health care team and the society
PO 6	Evidence based practice	Appraise and adopt high quality evidence based practice that leads to excellence in professional practice
PO 7	Life-long learning	Advance knowledge and skills with the use of recent technology for the continual improvement of professional practice
PO 8	Entrepreneurship, leadership and mentorship	Build entrepreneurship, leadership and mentorship skills to practice independently as well as in collaboration with the multidisciplinary health care team





**MANIPAL COLLEGE
OF HEALTH PROFESSIONS**
MANIPAL
(A constituent unit of MAHE, Manipal)

The subject code equivalence for subjects mentioned in syllabus copy of course **MPT (Musculoskeletal Sciences)** from the academic year **2021-22** batch. These changes have been discussed in BOS meeting held on 13.12.2021 and subsequently approved in the 70th Academic Council meeting held on 14.01.2022.

SEMESTER - I

Course Title	Old Code	Revised Code
Advanced Biostatistics & Research Methodology	ABS6101	ABS5101
Principles of Physiotherapy Practice	PTH6001	PTH5001
Clinical Practice in Physiotherapy	PTH6003	PTH5003
Research Proposal in Musculoskeletal Sciences Physiotherapy	PTH6470	PTH5470

SEMESTER - II

Course Title	Old Code	Revised Code
Ethics and pedagogy	EPG6201	EPG5201
Foundations of Physiotherapy in Musculoskeletal Sciences	PTH6402	PTH5402
Physiotherapy Clinical Practice in Musculoskeletal Sciences - I	PTH6404	PTH5404
Research Progress in Musculoskeletal Sciences - I	PTH6480	PTH5480

SEMESTER - III

Course Title	Old Code	Revised Code
Physiotherapy in General Musculoskeletal Sciences	PTH7401	PTH6401
Physiotherapy Clinical Practice in Musculoskeletal Sciences - II	PTH7403	PTH6403
Evidence Based Physiotherapy Practice in Musculoskeletal Sciences	PTH7405	PTH6405
Research Progress in Musculoskeletal Sciences - II	PTH7470	PTH6470

SEMESTER - IV: Program Elective

Option-1: Elective in Musculoskeletal Sciences - Manual Therapy


Course Title	Old Code	Revised Code
Manual Therapy	PTH7412	PTH6412
Clinical Practice in Manual Therapy	PTH7414	PTH6414
Research Project in Musculoskeletal Sciences	PTH7480	PTH6480

Option-2: Elective in Musculoskeletal Sciences - Sports Physiotherapy


Course Title	Old Code	Revised Code
Sports Physiotherapy	PTH7422	PTH6422
Clinical Practice in Sports Physiotherapy	PTH7424	PTH6424
Research Project in Musculoskeletal Sciences	PTH7480	PTH6480

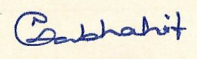
Option-3: Elective in Musculoskeletal Sciences - Hand Rehabilitation

Course Title	Old Code	Revised Code
Hand Rehabilitation	PTH7432	PTH6432
Clinical Practice in Hand Rehabilitation	PTH7434	PTH6434
Research Project in Musculoskeletal Sciences	PTH7480	PTH6480


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DEPUTY-REGISTRAR
ACADEMICS


REGISTRAR

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MAHE, Manipal - 576104

Deputy Registrar - Academics
MANIPAL ACADEMY OF HIGHER EDUCATION
MANIPAL - 576 104

6. COURSE STRUCTURE, COURSE WISE LEARNING OBJECTIVE, AND COURSE OUTCOMES (COs)

SEMESTER - I

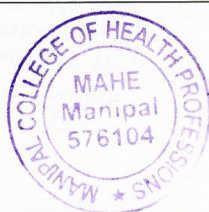
Course Code	Course Title	Credit Distribution (hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
ABS6101	Advanced Biostatistics & Research Methodology	3	1	-	-	4	30	70	100
PTH6001	Principles of Physiotherapy Practice	1	2	-	-	3	100	-	100
PTH6003	Clinical Practice in Physiotherapy	-	-	-	36	12	100	-	100
PTH6470	Research Proposal in Musculoskeletal Sciences Physiotherapy	-	-	4	-	2	100	-	100
Total		4	3	4	36	21	330	70	400

Note: ABS6101: will be conducted for 50 marks and normalized to 70 marks

SEMESTER - II

Course Code	Course Title	Credit Distribution (hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
EPG6201	Ethics and pedagogy	1	1	-	-	2	100	-	100
PTH6402	Foundations of Physiotherapy in Musculoskeletal Sciences	1	2	-	-	3	50	50	100
PTH6404	Physiotherapy Clinical Practice in Musculoskeletal Sciences - I	-	-	-	36	12	100	-	100
PTH6480	Research Progress in Musculoskeletal Sciences - I	-	-	4	-	2	100	-	100
Total		2	3	4	36	19	350	50	400

Note: PTH6402 will be conducted for 100 marks and normalized to 50 marks.



SEMESTER - III

Course Code	Course Title	Credit Distribution (hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
PTH7401	Physiotherapy in General Musculoskeletal Sciences	1	2	-	-	3	50	50	100
PTH7403	Physiotherapy Clinical Practice in Musculoskeletal Sciences - II	-	-	-	36	12	50	50	100
PTH7405	Evidence Based Physiotherapy Practice in Musculoskeletal Sciences	1	1	-	-	2	100	-	100
PTH7470	Research Progress in Musculoskeletal Sciences - II	-	-	6	-	3	100	-	100
Total		2	3	6	36	20	300	100	400

Note:
PTH7401 will be conducted for 100 marks and normalized to 50 marks
PTH7403 will be conducted for 100 marks and normalized to 50 marks

SEMESTER - IV

The student may choose from anyone options from the list of Program Elective combinations provided in the table below.

Option-1: Elective in Musculoskeletal Sciences - Manual Therapy

Course Code	Course Title	Credit Distribution (hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
PTH7412	Manual Therapy	1	2	-	-	3	50	50	100
PTH7414	Clinical Practice in Manual Therapy	-	-	-	36	12	50	50	100
PTH7480	Research Project in Musculoskeletal Sciences	-	-	10	-	5	50	50	100
Total		1	2	10	36	20	150	150	300

Note:
PTH7412 will be conducted for 100 marks and normalized to 50 marks
PTH7414 will be conducted for 100 marks and normalized to 50 marks



Option-2: Elective in Musculoskeletal Sciences – Sports Physiotherapy

Course Code	Course Title	Credit Distribution (hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
PTH7422	Sports Physiotherapy	1	2	-	-	3	50	50	100
PTH7424	Clinical Practice in Sports Physiotherapy	-	-	-	36	12	50	50	100
PTH7480	Research Project in Musculoskeletal Sciences	-	-	10	-	5	50	50	100
Total		1	2	10	36	20	150	150	300

Note:
PTH7422 will be conducted for 100 marks and normalized to 50 marks
PTH7424 will be conducted for 100 marks and normalized to 50 marks

Option-3: Elective in Musculoskeletal Sciences – Hand Rehabilitation

Course Code	Course Title	Credit Distribution (hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
PTH7432	Hand Rehabilitation	1	2	-	-	3	50	50	100
PTH7434	Clinical Practice in Hand Rehabilitation	-	-	-	36	12	50	50	100
PTH7480	Research Project in Musculoskeletal Sciences	-	-	10	-	5	50	50	100
Total		1	2	10	36	20	150	150	300

Note:
PTH7432 will be conducted for 100 marks and normalized to 50 marks
PTH7434 will be conducted for 100 marks and normalized to 50 marks



OVERALL CREDIT DISTRIBUTION

Semester	Credit distribution					Marks Distribution		
	L	T	P	CL	CR	IAC	ESE	Total
I - SEMESTER	4	3	4	36	21	330	70	400
II - SEMESTER	2	3	4	36	19	350	50	400
III - SEMESTER	2	3	6	36	20	300	100	400
IV - SEMESTER	1	2	10	36	20	150	150	300
Grand Total	9	11	24	144	80	1130	370	1500

INTERNAL ASSESSMENT COMPONENT (IAC) WEIGHTAGE DISTRIBUTION

Theoretical courses		Courses on Clinical Practice/Practical		Research Project	
Components	%	Components	%	Components	%
Mid semester exam	50	Case presentation	50	Performance evaluation	50
Class seminar	30	Clinical performance	50	Presentation/ Report submission	50
Assignments	20				

