

SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Syllabus with Effect from: 2014

Regulations & Curriculum
Rules of Degree of Master of Physiotherapy
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Rules for teaching, training programme and examination of post graduate course in Physiotherapy under faculty of Medicine:

The recommendations are mandatory in nature. The recommendations prescribed herein shall be applicable to the post graduate course in physiotherapy, faculty of medicine under Sardar Patel University, Vallabh Vidyanagar. The recommendations of Indian Association of Physiotherapist (IAP) should be incorporated as and when applicable.

R.MPT 1: The Course

The Master in Physiotherapy Course will be a regular full-time course of 2 years duration. During an academic year, a candidate enrolled in the programme shall not appear in any other Examination of the University enrolled in / or any other University. Any break in the career, power of extension of the course and the fixation of the term will be vested with the University.

R.MPT 2: Nomenclature

The course will be referred to as a Master of Physiotherapy (MPT).

R.MPT 3: Objectives of the Course

To prepare a post-graduate student to acquire in-depth knowledge of the structure and function of the human movement (including movement of fluids and air into the body)

Demonstrate the ability in the conduct of diagnostic procedures on the basis of kinesiological, physiological, environmental and psycho-socio-cultural aspects so as to reach the functional diagnosis enhancing professional autonomy.



- To form base of professional practice by referral as well as first contact mode using evidence based practices.
- Plan and execute independent research project/ dissertation in order to validate techniques and technology in practice of physiotherapy on any selected subspecialty.
- To inculcate appropriate professional relationships in multi-disciplinary set up, patient management and co-partnership basis.
- To prepare a student to address problems related to health education and acquaint him/ her with the concept of quality care at the institutional as well as the community levels.
- To practice the concept of protection of rights of the community during referral as well as first contact practice in order to provide honest, competent and accountable physiotherapy services to the community.
- To provide experience in clinical training and undergraduate teaching partly.
- To incorporate concept of management in physiotherapy.

R. MPT 4: Eligibility for Admission

Candidates admitted into the Master of Physiotherapy course should have passed the B.P.T. degree examination of this university or B.P.T./B.Physio. Or B.Sc. (PT) degree examination of any other recognized university (under 10+2+3 pattern) accepted by the authority of this university as equivalent thereto, and has completed six months compulsory rotator internship in a teaching institute recognized by Indian Association of Physiotherapists (IAP).

It is desirable that applicants should have worked as a qualified physiotherapist for at least one Year in a Hospital / Institution prior to admission to the post-graduate course.

R. MPT 5: Obtaining Eligibility Certificate by the University & Subsequent Registration

No candidate shall be admitted into the Master of Physiotherapy course unless the candidate has obtained the eligibility certificate issued by Sardar Patel University, Vallabh Vidyanagar. The candidates have to make an application to the university with the relevant documents along with the prescribed fees.

Candidates should obtain the eligibility certificate latest by one month of taking admission else the registration may be canceled.

R. MPT 6: Obtaining Life Membership with Indian Association of Physiotherapists (IAP)

Candidates should obtain registration with Indian Association of Physiotherapist (IAP) latest by one month of taking admission.

In case of foreign nationals the most recent guidelines of the IAP / University may be followed.

R. MPT 7: Selection Criteria for Admission

Selection criteria for admission as per the norms adopted for post graduate selection in medical faculty under S. P. University from time to time.

R. MPT 8: Intake of Students

The intake of students to the course shall be in accordance with the ordinance in this behalf. The guide to student ratio should be 1:3. However one additional student may be registered with the recognized PG teacher for every additional faculty with arecognized, teaching faculty with MPT.

The course will commence on the 1st of June every year.

The intake of students to the course shall be once in a year.

No Post-graduate seat left unfilled in an academic year shall be carried forward to the next or subsequent academic years.



R. MPT 9: Medium of Instruction

English will be the medium of instruction for the subjects of study and for the examination of the MPT course.

R. MPT 10: Course of the Study

The course of the study, subjects and teaching schedule for I and II year MPT course is shown Separately in table 1 and 2.

Table- 1: MPT Part-I (First 12 Months)

Subjects		Teaching Hours		
		Theory	Clinical/Practical	Total
I	Review of Basic Science			
	Work physiology & Electro Physiology	100	75	175
	Bio-mechanics & Bio-engineering	100	75	175
	Research methodology & Bio-statistics	100	---	100
	Education Technology	50	---	50
	Ethics, Management and planning	50	---	50
II	Physical and functional diagnosis	180	220	400
III	Advanced Physic therapeutics Part-I	100	100	200
IV	Clinical training	---	650	650
V	Seminars, Journal clubs, Teaching skills, Case presentations, Field works etc.	---	150	150
	Total			1950

Table - 2: MPT PART-II (13-24 months)

Subjects		Teaching Hours		
		Theory	Clinical/Practical	Total
I	Advanced Physiotherapeutic PART-II	200	400	600
II	Electives:	100	200	300
	Physiotherapy in Neurological & Psychosomatic disorders OR Physiotherapy in Musculoskeletal Disorders and Sports Physiotherapy OR Physiotherapy in Cardio-respiratory disorders and intensive care OR Community physiotherapy & CBR (Community Based Rehabilitation) OR Paediatric Physiotherapy OR Women's Health Physiotherapy			
III	Clinical Training	---	500	500
IV	Seminars, Journal Clubs, Teaching Skills, Case Presentations, Field Works Etc.	---	150	150
	Total			1550



R.MPT 11: Method of Training

The training of post-graduate for MPT degree shall be on a full time pattern with graded responsibilities in the management and treatment of patients entrusted to his/ her care. The participation of all the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, clinical rounds, case demonstrations, clinics, journal review, meetings and CME. Every candidate should be required to participate in the teaching and training programs of under-graduate students. Training should include involvement in laboratory, experimental work and research studies.

R.MPT 12: Monitoring Process of Studies (Internal monitoring)

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching/ learning activities. It may be structured and assessment be done using checklists that assess various aspects.

- Model checklists are included in the log book / work diary of the students.

Work diary / Log book:

Every candidate shall maintain a work diary and record his/ her participation in the training programs 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 or laboratory procedures, if any, conducted by the candidate. The work diary shall be scrutinized and certified by the Head of the Department and Head of the Institution and presented in the University Examination.

- Periodic tests:

The college may conduct an internal exam one month before the final exam of each academic year.

20% marks will be considered for the total in the University examination.

The test may include written theory papers, practical, viva voce and clinical in the pattern of university examination records and marks obtained in such tests will be maintained by the Head of the Department and sent to the University, when called for.

Pattern of Internal Examination:

MPT Part-I

Theory Exam

20% of total marks of each paper for that particular subject

Practical Exam

20% of Total Marks of Each Practical
Non Elective Case + Micro Teaching

MPT Part-II

Theory Exam

(20% of total marks)

20% of total marks of each paper for that particular subject

Practical Exam

(20% of total marks)

20% of total marks of each practical for that particular subject

Non Elective Case

Elective Case



R.MPT 13: Attendance

No candidate shall be permitted to appear for the examination unless he/ she puts 80% of the training during each academic year of the post graduate course and produces the necessary certificate of study, attendance and progress from head of the institution.

Every candidate shall attend symposia, seminars, conferences, journal review meetings, grand rounds, case presentations, clinics and lectures during each year as prescribed by the department and not absent him/ her from work without valid reasons.

No candidate is permitted to practice outside the institution where he/she is admitted during the tenure of the postgraduate course.

Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the University Examination.

R.MPT 14: Examination

The University shall conduct examination for MPT course at the end of each academic year. The examinations shall be known as MPT Part-I Examination and MPT Part-II Examination.

It is mandatory to appear and pass in both MPT Part-I Examination and MPT Part-II Examination.

A candidate can not appear for MPT Part-II Examination till he/she has cleared/passed the MPT Part-I Examination.

If a candidate fails in aggregate of theory and practical then he/she shall be declared as fail. A candidate will have to reappear in the whole examination including theory and practical during the supplementary examination however he/she will be allowed to continue for MPT Part-II.

The University will conduct examination twice in a year with preferably in May and November at an interval of not more than six months and not less than four months between the two examinations.

A candidate has to secure not less than 50% marks aggregate in theory and practical (all theory papers and all practicals combined) to be declared passed in the said examination.

A candidate has to complete the whole course in SARDAR PATEL UNIVERSITY. No transfer to any university is permitted.

R.MPT 15: Scheme of Examination

The degree of Master in Physiotherapy will be taken by theory, practical and viva-voce.

➤ Written Examination (Theory)

The theory examination - each question paper will be of three hours duration and each paper carrying 80 marks.

There will be an Elective subject in MPT PART-II and a separate paper for each elective subject chosen by the candidate should be given. Recent advances in physiotherapy may be asked in any or all the 4 papers. The Theory examination shall be held sufficiently earlier than clinical/practical examination so that the answer books are assessed before the commencement of the clinical/practical examinations.



Particulars of Distribution of Marks are Shown on Table

MPT PART - I						
Component	Title	Subject	Marks			
			Internal+External =Total			
Theory	Paper - I	Review of Basic sciences	20	+	80	= 100
	Paper - II	Physical and functional diagnosis	20	+	80	= 100
	Paper - III	Advanced Physio therapeutics (Part - I)	20	+	80	= 100
Practical	Practical - I	Non Elective case +Micro-teaching	20	+	80	= 100

MPT PART - II						
Component	Title	Subject	Marks			
			Internal+External =Total			
Theory	Paper-I	Advanced Physio therapeutics (Part -II)	20	+	80	= 100
	Paper-II	Elective Subject (Separate for each elective)	20	+	80	= 100
Practical	Practical-I	Non Elective case	20	+	80	= 100
	Practical-II	Elective case (Separate for each Elective)	20	+	80	= 100
	Practical-III	Dissertation	00	+	50	= 50

➤ **Practical / Clinical Examination:**

It should be aimed at examining clinical skills and competency of the candidate for undertaking independent work as a specialist.

➤ **Viva-voce:**

Viva-voce examination shall aim at assessing depth of knowledge, logical reasoning, confidence and 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.

➤ **Micro teaching & Log Book:**

The candidate shall prepare a topic of his / her choice, not exceeding more than 10 minutes. Micro teaching shall aim at assessing the topic chosen (which shall be concise so as to be introduced and summarized within the time frame allotted), clear concepts, communication skill and use of appropriate audio-visual aids. The candidate has to submit the Log book for assessment to the examiners during the practical examination.

➤ **Number of Candidates per Day:**

The maximum number of candidates for practical clinical and viva voce examination shall not be more than 12 per day

➤ **Examiners:**

All examiners shall be recognized post graduate teachers. At least 50 % of total examiners shall be externals. An external examiner must be a faculty of physiotherapy, preferably be from out of state and ordinarily may be appointed for not more than 3 terms consecutively. In exceptional circumstances examination may be held with 3 examiners (with prior permission of the competent authority of SP University, Vallabh Vidyanagar) of which 2 of them must be externals. The same set of examiner shall ordinarily be responsible for the written, practical or part of examination. The Head of Department / Professor of medical / surgical subject may be included as second internal examiner.



➤ **Criteria for declaring as pass in university examination:**

A candidate has to secure, not less than 50% marks aggregate in internal and university to be declared passed in the said examination.

A candidate has to secure, not less than 50% marks aggregate in theory and practical (all theory papers and all practicals combined) to be declared passed in the said examination.

A candidate declared to have failed in the examination will compulsorily have to reappear in the whole examination inclusive of whole theory (all theory papers) and the whole practical exam (all practicals) in the subsequent university examination with the same criteria to pass.

Award of classes:

First class with distinction - 75% and above in aggregate provided the candidate passes the examination in first attempt.

First class - 60% and above in aggregate provided the candidate passes the examination in first attempt.

Pass - 50% of marks in theory aggregate and 50% of marks in clinical and Viva-voce aggregate.

➤ **Eligibility for appearing in the University examination**

A student nearing completion of the tenure may be permitted to appear at the University examination by filling the appropriate form and paying the stipulated fee to the University. However, his/her form will be forwarded to the University only if the student concerned fulfils the following provisions:

A minimum of 80% (eighty percent) of attendance in all components of the training during each year (and not the cumulative / comprehensive attendance) is necessary.

Cumulative assessment based on Log Book / Work Diary, Presentations, Symposia, Seminars etc.

Candidate has to secure, not less than 50% marks aggregate in theory and practical (all theory papers and all practicals combined) in the internals to be eligible to appear in the Final University exams.

Submission of dissertation work is an essential precondition for a candidate to appear in the university examination.

R.MPT 16: Pattern of University Examination

MPT Part - I

Theory – 80 marks each paper (No Choice)

Long Essay (2 Questions) – 2 x 15 = 30 marks

Short Essay (5 Questions) – 5 x 10 = 50 marks

Practical / Clinical – Total 80 marks

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

Non elective case - 1 x 70 = 70 marks

Assessment, Physical & Functional Diagnosis and Management

Micro-teaching – 10 marks

MPT Part-II

Theory – 80 marks each paper (No Choice)

Long Essay (2 Questions) – 2 x 15 = 30 marks

Short Essay (5 Questions) – 5 x 10 = 50 marks

Practical / Clinical – Total 210 marks

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

Day – 1

Non elective case (1) - 1 x 80 = 80 marks

Assessment, Physical & Functional Diagnosis and Management



Day – 2

Elective Long case - 1x 80 = 80 marks

Assessment, Physical & Functional Diagnosis and Management

Dissertation = 50 marks

Supplementary Examination:

In Supplementary examination practical examinations shall be conducted same as main exam.

R.MPT 17: Dissertation / Thesis

Every candidate pursuing MPT degree course is required to carry out work on a selected research project under the guidance of a recognized postgraduate teacher. The result of such a work shall be submitted in the form of dissertation.

The dissertation is aimed to train a graduate student in research methods and techniques. It includes identification of a problem, formulation of 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.

Every candidate shall submit to the registrar (Academic) of the university in the prescribed Form, a synopsis duly approved by the institutes Human Research Ethical Committee (HREC), containing particulars of proposed dissertation work within one year 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.

Such synopsis will be reviewed 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.

- Introduction
- Aims or objectives of study
- Review of literature
- Material and methods
- Results
- Discussion
- Conclusion
- Summary
- References
- Tables
- 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 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 department and head of the institution shall certify the dissertation.

Four copies of dissertation thus prepared shall be submitted to the registrar (evaluation), three months before final examination on or before the dates notified by the university.

The thesis will be sent to all external examiners appointed by the university and evaluation shall be conducted during practical examination of the university.

The candidate has to present the dissertation in front of the examiners in the university examination where it will be awarded with the marks and will be graded as accepted/ accepted with modification(s).



If the dissertation is graded as accepted with modification(s), the candidate has to submit the modified dissertation on or before the date notified by the university.

R.MPT 18: Guide

The academic qualification and teaching experience required for recognition by this university is as per the criteria for recognition of MPT teachers for guides of IAP.

Criteria for recognition of MPT teacher / Guide

M.Sc. (PT) / MPT with five years full time teaching experience obtained after M.Sc. (PT) /MPT at an IAP recognized institution.

The guide to students ratio should be 1:3

Change of guide:

In the event of 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.

R.MPT 19: Readmission after Break of Study

Candidates having a break (continuously or in spells) of study of 5 years and above from the date of admission will not be considered for re-admission.

The five years period of break of study shall be calculated from the date of first discontinuance of the course by the candidate.

A candidate having a break of study shall be re-admitted after satisfactory fulfilment of the regulations of the University at the commencement of an academic year only and shall undergo the full duration of the course with no exemption in the period of study and will be permitted to appear for the examinations as prescribed in the regulations.

R.MPT 20: Migration / Transfer of Candidate

Request of transfer during the course of study will not be entertained under any circumstances.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Review of Basic Science
Syllabus with Effect from: 2014

Description in Detail	
Work Physiology	
1	Physiological and physical work
2	Ergonomic aspects of work, energy transfer, oxygen intake and oxygen debt, cardio -pulmonary and thermo regulatory changes during muscular work.
3	Body consumption, nutrition and caloric balance. Obesity and weight control.
4	Individual and environmental factors influencing muscle work and environmental control.
5	Fatigue assessment and scientific organization of work-rest regimes to control fatigue.
Electro Physiology	
1	Characteristics and components of Electro therapeutic stimulation systems and characteristic and components of Electro physiological assessment devices.
2	Electrical excitability of muscle and nerve and composition of peripheral nerves
3	A muscle plasticity to response to electrical stimulation
4	Instrumentation for Neuromuscular electrical stimulation (NMES)
5	Neurobiology of afferent pain transmission and central nervous system mechanisms of pain modulation
6	Electrical stimulation and circulation
7	Clinical electro physiological testing
Research Methodology & Bio Statistics	
1	Meaning of research, objectives, motivation and types of research
2	Research process and criteria of good research
3	Problems encountered by researches in India & defining the research problem
4	Research design & sampling design
5	Measurement & scaling techniques. Method of data collection
6	Processing and analysis of data. Sampling fundamentals
7	Analysis of variance & c/o-variance
8	Role of Computer in Research and Ethical Concepts.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Education Technology
Syllabus with Effect from: 2014

	Description in Detail
1	Educational aims, Agencies of education, Major philosophies of education, Modern & contemporary philosophies of education, Role of educational philosophy and Current issues and trends in education
2	Theories of teaching, Relationship between teaching and learning, Psychology of education and Dynamics of behavior, motivational process, of learning perception, individual differences, intelligence and personality
3	Curriculum committee, curriculum development for Physiotherapy, Types of curriculum, Formation of philosophy, objectives, course objectives, Placing, Course placement, time allotment, Selection and organization of learning experience, Plans of courses, Rotational plan – individual rotational plan, correlation of theory and practice, Hospital and community areas for clinical instruction, Clinical assignments and Current trends in curriculum planning.
4	Strategies of teaching, Planning of teaching, Organization, Writing lesson plans, A-V aids, Teaching methods – Socialized teaching methods
5	Nature of measurement of education, meaning, process, personal, standardized, non standardized tests, Steps in constructing a test, measurement of cognitive domain, assessment techniques of affective, psychomotor domains, administering scanning and reporting, Standardized tools, important tests of intelligence, aptitude, instrument, personality, achievement and sestets scale, Program evaluation and Cumulative evaluation.
6	Philosophy, principles and concepts of guidance and counseling services of students and faculty.
7	Faculty development and development of personnel for PT services.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Ethics, Management & Planning
Syllabus with Effect from: 2014

	Description in Detail
1	Concept of morality, ethics and legality
2	Professional Ethics towards client- Respect & dignity, -Confidentiality, Responsibility
3	Communication skills, informed consent, Client interest & satisfaction
4	Laws – Constitution of India & rights of a citizen, responsibilities of the therapist and status in health care – Persons with disability act – Workman’s compensation act – ESI –Councils for regulation of professional practice – self regulatory role of professional association – consumer protection act
5	Role of professional I Socio-Cultural & Socio-economical context
6	Constitution & functions of I.A.P.
7	Role of W.C.P.T. and its various branches / special interest groups and Role of W.H.O.
8	Management – Theories and their application to physiotherapy practice, service quality at various levels of the health delivery system, teaching institution and self-employment and principles and concepts.
9	Administration & marketing – Personal policies – Communication and Contact –Administration principles based on Goal & Functions at large hospital / Domiciliary setup / private clinical / academic institution. Methods of maintaining records – Budget planning Leadership and team work.
10	Laws – Constitution of India & rights of a citizen, responsibilities of the therapist and status in health care – Persons with disability act – Workman’s compensation act – ESI –Councils for regulation of professional practice – self regulatory role of professional association – consumer protection act



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Physical & Functional Diagnosis
Syllabus with Effect from: 2014

	Description in Detail
1	Clinical examination in general and detection of movement dysfunction
2	Principles of pathological investigations and imaging techniques related to neuromuscular, skeletal and cardio pulmonary disorders with interpretation.
3	Developmental screening, development diagnosis, neurodevelopment assessment and motor learning – Voluntary control assessment
4	Anthropometric measurements
5	Physical fitness assessment by a. Range of motion. Muscle strength, endurance and skills Body consumption Cardiac efficiency tests and spirometry Fitness tests for sports
6	Psycho-physiological and Neuro-psychological tests
7	Electro-diagnosis, clinical and kinesiological electromyography and evoked potential studies. Biophysical measurements, physiotherapy modalities, techniques and approaches. Electrodiagnosis, conventional methods, electromyography, sensory and motor nerve conduction velocity studies, spinal and somato-sensory evoked potentials.
8	Exercise ECG testing and monitoring
9	Pulmonary function tests.
10	Cardio – vascular function disorders & principles of management, cardio-respiratory function disorders and assessments.
11	Physical disability evaluation and disability diagnosis. Gait analysis and diagnosis.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Advanced Physiotherapeutic - Part - I & Part - II
Syllabus with Effect from: 2014

Description in Detail	
Advanced Physiotherapeutic - Part - I	
Clinical Applied & Allied Therapeutics	
1	Physiotherapy in pain management such as electro-magnetic radiation, ultrasound laser, electro acupuncture etc.
2	Massage Mobilization and manipulations.
3	Aids and appliances, adaptive functional devices to improve neurological dysfunction
4	Inhibition and facilitation techniques
5	Maternal and child care in general physiotherapy
6	Applied neuro anatomy and neuro physiotherapy
7	Theories of motor learning
8	Therapeutic biofeedback & psychosomatic training.
9	Combination therapy
10	Functional training – respiratory exercises, training for feeding, bladder and bowel training, coughing and compression, artificial respiration, inhalation therapy & intensive care unit procedures.
11	Yogasanans& Pranayama physiological & therapeutic principles of yoga yogasanans for physical culture, relaxation and meditation applications of yogasanans in physical fitness, flexibility, cardiac rehabilitation and neuromotor learning. Pranayama and respiratory physiology Kriyas and their physiological significance. Therapeutic application of yoga Yoga - a holistic approach.
12	Acupuncture: definition, principles, techniques, physiological effects, indication, contraindications, dangers & integration of acupuncture with physiotherapy.
13	Magneto therapy
14	Naturopathy
Community Health, Community Physiotherapy & Rehabilitation:	
1	Geriatric physiotherapy
2	Maternal and Child care
Advanced Physiotherapeutic – Part - II	
Advanced Physiotherapeutic (Medical) – Part - II - (A)	
1	Physiotherapy in common conditions of skin
2	Physiotherapy in common vascular diseases
3	Physiotherapy in deficiency diseases
4	Physiotherapy in respiratory disorders
5	Physiotherapy management of ischemic heart diseases
6	Cardiopulmonary medications and their effect on activity performance
7	Exercise planning and prescription
8	Ergonomic aspects of exercise on oxygen, energy consumption MET value of various exercises and activity
9	Effect of aerobic, anaerobic as well as Isometric and Isokinetic exercises on cardiac function.
10	Physiotherapy in psychiatry



11	Management of pain in neuro and musculo skeletal disorders
12	Physiotherapy management in arthritis and allied conditions.
Advanced Physiotherapeutic (Surgical) – Part - II (B)	
1	Physiotherapy management of postoperative patients in cardiopulmonary disorders.
2	Monitoring systems and defibrillators. Artificial respirators
3	Physiotherapy in post operative management of metabolic, hormonal, neoplastic and infective conditions of bones and joints.
4	Physiotherapy following arthroplasty, implants and soft tissue repairs.
5	Pre & postoperative physiotherapy in tendon transfer. Electrical stimulation and biofeedback procedures.
6	Physiotherapy management following head injuries, in intensive care and neuro surgical procedures
7	Physiotherapy following general surgery
8	Physiotherapy following Uro surgery
9	Physiotherapy following plastic surgery
10	Physiotherapy management following selective and common cases of oncology surgery.
11	Physiotherapy following obstetric and gynecological disorders.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Physiotherapy in Musculo-Skeletal Disorders & Sports Physiotherapy
Syllabus with Effect from: 2014

	Description in Detail
1	Applied anatomy with emphasis on Biomechanics, Kinesiology, work physiology and locomotor function.
2	Clinical assessment and rationale of Laboratory investigations along with differential diagnosis
3	Clinical symptomatology, pathophysiology and Patho-mechanics of musculo skeletal conditions
4	Functional assessment (Hand function, Gait, Posture, A.D.L., Occupational work)
5	Kinetic and kinematics analysis
6	Analysis and classification of sports and sports injuries
7	Assessment of locomotor impairments, disabilities and disability evaluation
8	Physiotherapy management of locomotor disorder, principles of medical and surgical aspects, sports psychology and retraining.
9	Management of sport injuries, sports fitness / rehabilitation of pediatric, Musculoskeletal disorders
10	Orthopedic implants- designs, materials, indications, postoperative assessment and training.
11	External aids, appliances, adaptive self-help devices, prescription, biomechanical compatibility, checkout and training.
12	Manual therapies: soft tissue manipulations and mobilization, neural mobilization, acupressure.
13	Joint manipulation – peripheral joints and vertebral joints
14	Neurological complications of locomotor disorders, conservative electro diagnosis, Electromyography and evoked potential studies.
15	Community based rehabilitation in musculo skeletal disorders.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Physiotherapy in Neurological & Psychosomatic Disorders
Syllabus with Effect from: 2014

	Description in Detail
1	Anatomy and physiological of C.N.S and P.N.S.
2	Clinical symptomatology and pathophysiology of the neurological disorders
3	Clinical assessment and investigations along with differential diagnosis
4	Electrodiagnosis, conventional methods – Strength Duration curves, Accommodation, Skin temperature, resistance and blood flow
5	Electromyography especially with reference to patho-physiology and patho-mechanics. Quantitative EMG.
6	Evoked potential studies
7	Evaluation of A.N.S. dysfunction with reference to psycho-physiological testing, Biofeedback training
8	Neuro-psychological functions. Perception testing and training
9	Motor control assessment, reflexes and automatic reactions – voluntary control, feedback mechanisms
10	Motor learning and motor control training techniques
11	Functional electrical stimulation and Biofeedback methods
12	Learning skills, A.D.L. and functional activities
13	Aids and appliances in neurological disorders. Prescriptions, Testing and training
14	Associated functional disturbances of higher functions and their testing and training
15	Community based rehabilitation for neurological dysfunction. Disability evaluation and management



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Pediatric Physiotherapy
Syllabus with Effect from: 2014

	Description in Detail
1	Genetic basis of pediatric disorders. Embryology & genetic counseling
2	Growth and development of a child and its disorders
3	Neurodevelopment assessment, developmental diagnosis. Developmental screening
4	Cardio-respiratory assessment of neonate and infant and related pediatric disorder.
5	Assessment of progressive loco motor disorders – Neuropathic and Myopathic



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Physiotherapy in Cardio-Respiratory Disorders & Intensive Care
Syllabus with Effect from: 2014

	Description in Detail
1	Anatomy and physiology of cardio-vascular and respiratory systems
2	Epidemiology, symptomatology and pathophysiology of the cardio-respiratory disorders
3	Clinical assessment, rationale of laboratory investigations and differential diagnosis.
4	Evaluation of respiratory dysfunction, lung function tests – volumetric, analysis of blood gases, X-ray chest.
5	Evaluation of cardiac dysfunction ECG, exercise ECG testing, Holter monitoring etc. Echo-cardiogram, X- ray, Imaging techniques etc.
6	Evaluation of peripheral vascular disorders,. Clinical blood flow studies, temperature plethsmography, A.N.S. dysfunction testing
7	Risk factors and preventive measures
8	Cardio-respiratory emergencies and management principles – medication, critical care, indications of surgical intervention, stabilization of vital functions – defibrillation.
9	Intensive care unit – Concept and set-up, equipment for advanced methods of resuscitation, monitoring and patient management, Artificial airways, Ventilators, Pulse-Oximetry
10	Cardio-pulmonary resuscitation
11	Respiratory physiotherapy – Lung hygiene, humidifiers, nebulisers, intermittent positive pressure breathing etc. and rehabilitation.
12	Medical, surgical and physiotherapy management of peripheral vascular disorders
13	Exercise testing, planning and prescription: aerobic and anaerobic exercise training
14	Cardiac rehabilitation – conservative and post-operative management
15	C.B.R. in Cardio-vascular and respiratory conditions.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Community Physiotherapy & Community Based Rehabilitation
Syllabus with Effect from: 2014

	Description in Detail
1	Institute based rehabilitation services and multi-disciplinary approach
2	Methodology of CBR with reference to National Health Delivery system
3	Role of National institutes, District Rehabilitation Centre and Primary Health Centre (with appropriate exposure)
4	Public awareness to the various disabilities, Communications. Message generation and dissipation
5	Persons with disability act – 1995 with related Government infrastructure
6	Role of Government in CBR , inter-sectoral programs and co-ordination implementation of the Act
7	Role of Non-Government organizations in CBR
8	Scope of community physiotherapy
9	Disability detection and early intervention
10	Physical fitness, stress management through yoga and psychosomatic approaches
11	Home exercises programs for various classification of disabilities
12	Physiotherapist as a Master Trainer in CBR
13	Physiotherapy in Maternal and child health care
14	Holistic physiotherapy for the aged
15	Physiotherapy role in industry – preventive, intervention, ergonomic and rehabilitative.



SARDAR PATEL UNIVERSITY
Programme & Subject: Master of Physiotherapy (MPT)
Women's Health Physiotherapy
Syllabus with Effect from: 2014

	Description in Detail
1	Adolescence and musculoskeletal system, diet and exercise for the adolescent, eating disorders.
2	Role of PT in obstetrics care: Maternal Physiology Exercise – maternal fetal and placement response to exercise Ante and post natal care and exercise training consideration
3	Diagnosis and treatment of musculoskeletal pain and dysfunction in the childbearing year
4	Maternal disorders and diseases Cardiac diseases and disorders, pregnancy induced hypertension Vascular, respiratory, Neurologic
5	Physical therapy care during labour – normal, late and complicated pregnancy, maternal position, pain mechanism and relief
6	Post partum care – anatomical and physiological changes post – partum, post natal exercise program, post caesarean exercise program
7	Physical therapy care in high risk pregnancy
8	Neonate handling assessment and management
9	The climacteric
10	Role of physiotherapy in Gynecologic care Evaluation and treatment Pelvic inflammatory diseases : Acute and Chronic plevic floor dysfunction Physiotherapy in incontinence (anal and urinary) Uterovaginal prolapse
11	Cancer Rehabilitation
12	Lymph edema and management
13	Anatomical, physiological, Psychological, Cardiovascular and other systemic changes, postmenopausal osteoporosis, falls, fracture in elderly women
14	Exercise testing and prescription in female athletes and women
15	Physiotherapy following gynecological surgery
16	Fitness testing and exercise prescription in gynecological conditions (infertility, PCOD, Obesity)
17	Advance in women's health



Basic Text & Reference Books:-

- Scientific basis of human movement – Gowitzke, Williams and Wikins, Baltimore, 1999 3rd edition
- Clinical Biomechanics of spine – White AA and Panjabi – JB Lippincot, Philadelphia 1978
- Kinesiology – Brunnstrom Singe, FA Davis – Philadelphia – 1966
- TB of work physiology – Guyton, Prim Books Bangalore- 1991 8th Edition
- Hand book of Physiology in Aging – Masoro, CRC Press 1981
- Research for Physiotherapists –Hicks C Churchill Living Stone, Edingburth 1995 Ed\$
- Introduction to Research in Health Science- Polgar S Churchill Livingstone, London-88
- Elements of Research in physical therapy – currier DP, Williams & Wilkins, Baltimore, 1990 Ed 3
- Hand book of Research Method – Sproull, Scarecrow Press, 1998
- Physical Therapy Research-Domholdt, WB Saunders, Philadelphia 1993
- Public power and Administration-Wilenski, Hale &Iremonger, 1986
- Physical Therapy Administration & Management- Hickik Robert J
- Management principles for physiotherapists – Nosse Lorry J
- Human neuro anatomy- Carpenter MB Williams & Wilkins, Baltinore 1983
- Physical therapy assessment in Early Infancy – Wihelm Churchill Livingstone,NW-1993
- Physical therapy for children – Campbell Suzann K WB Saunders, Philadelphia 1994
- Physical management of Multiple Handicapped – Fraser, William & Wilkins, Baltimore
- Elements of pediatric physiotherapy – Eckerley P Churchill Livingstone, Edingburgh 1993
- Physiotherapy in pediatrics – Sheperd R Heinmann, London, 1980 2nd edition
- The growth chart – WHO Geneva, 1986
- Orthotics in Neurological Rehabilitation – Aisen, Demos Publication, New York 1992
- Manual of nerve conduction velocity techniques – De Lisa, Raven press NW 1982
- Electrodiagnosis in diseases of nerve and muscle – Kimura J FA Davis, Philadelphia
- Mobilization of the extremity joints – Kaltenbore, Harper and Row, Philadelphia 1980
- Chest physiotherapy in intensive care unit – Madezie Williams & Wilkins, Baltimore
- Cardiopulmonary symptoms in physiotherapy – Chohen M Churchill, Livingstone London- 1988
- Physical rehabilitation: assessment and treatment – O’Sullivan, FA Davis Philadelphia 94
- Neuro-rehabilitation – Farber, WB Saunders, Philaelfia 1982
- Orthopedics physical therapy- Donatteli, London Churchill Livingstone, 1994
- Yoga Therapy – Kunalayananda Swami and Vinekar, popular prakashan, Bomday 1992
- Gait analysis – Peny J, Black Thorofare, NJ 192
- Bio-feedback – A practitioners guide- Kerb D Guford press
- The neural basis of motor control – Black I Churchill, Livingstone London-1987
- Physical therapy management of Parkinson,s disease- Turnbull Gerode I Churchill, Livingstone, London 1994
- Abnormal postural reflex activity caused by Brain Lesions – Bobath B Aspen publications, Rockville, 1897
- Disorders of voluntary muscle-Eagel, Churchill, Livingstone, Edingburth 1988
- A clinician’s view of neuro muscle disorder- Brook MH Williams and Wilkins, Baltimore 1986
- Proprioception, neuro muscular facilitation techniques – Knot M and Voss, Harper and New York, 1972- 2nd edition
- Stroke rehabilitation – Laidler, Capman and Hall, London 1994
- Motor relearning programme for stroke – Carr, Aspen Publication Rock Ville, 1987
- Progress in Obstetrics and Gynecology- John Studd- ISBN- 0443-07222-1, ELSEVIER SCIENCE.
- Physiotherapy in Obstetrics & Gynecology, second edition, Jill Mantle, Jeanette Haslam, Sue Burton, ELSEVIER SCIENCE.

