SunRise University
Approved by Govt. of Rajasthan vide Sunrise University Act, 2011
Recognized by UGC Act, 1956 u/s 2 (f)

SRU COLLEGE OF PARAMEDICAL TECHNOLOGY
SunRise University Campus,Alwar,Rajasthan,India

SYLLABUS

MASTER OF PHYSIOTHERAPY

MPT ., [PHYSIOTHERAPY IN PED] / M.Sc.,[PT IN PEAD.]

PROGRAM TITLE
Master of Physiotherapy (MPT)
Physiotherapy in PEADIATRIC
COURSE OUTLINE
The Master Degree in Physiotherapy is a two-year program consisting of classroom teaching, self-academic activities and clinical posting. In the first year, theoretical basis of specialty physiotherapy is refreshed along with research methodology and biostatistics. The students are posted in their areas of clinical expertise specialty during this period. They are required to choose their study for dissertation and submit a synopsis. During the second year the students will be posted in their area of specialty. They are required to complete and submit their dissertation. The learning program includes seminars, journal reviews, case presentations, case discursions and classroom teaching. Some of the clinical postings are provided at other reputed centers in the country in order to offer a wider spectrum of experience. The students are encouraged to attend conference, workshop to enhance their knowledge during the course of study. University examinations are held at the end of second year.
GOALS OF COURSE

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Preparation of a post graduate student towards his/ her professional autonomy with self-regulating discipline at par with global standards. 2. Formation of base of the professional practice by referral as well as first contact mode using evidence-based practice. 3. Impartation of research basis in order to validate techniques & technology in practice to physiotherapy. 4. Acquainting a student with concept of quality care at the institutional as well as the community levels. 5. Inculcation of appropriate professional relationship in multidisciplinary set up, patient management and co partnership basis. 6. Preparation of students to address problems related to health education and community physiotherapy. 7. Practicing the concept of protection of rights of the community during referral as well as first contact practice. 8. Incorporation of concept of management in physiotherapy. 9. Experience in clinical training and undergraduate teaching partly. 10.Providing the honest, competent and accountable physiotherapy services to the community.

ELIGIBILITY

Eligibility to offer Master Degree Program in Physiotherapy (MPT)

Eligibility for Admission Candidates who have passed B.Sc. (PT) or BPT degree from institutions where the mode of study is a full time program, with minimum 3½ years / 4 ½ years duration from this university or any other university in India or abroad as equivalent with not less than 50% of marks in aggregate and have completed 6 months of compulsory rotating internship in Physiotherapy Colleges recognized by UGC approved University are eligible.

Candidates who have passed BPT through correspondence or Distance Education program are not eligible.

OR

Candidates who have passed BPT through Bridge Course or through Lateral Entry after completing their Diploma in Physiotherapy from institutions where the mode of study is a full time program from this university or any other university in India or abroad as equivalent with not less than 50% of marks in aggregate and have completed 6 months of compulsory rotating internship in Physiotherapy Colleges recognized are eligible. Candidates who have passed BPT through correspondence or Distance Education program are not eligible.

Obtaining Eligibility Certificate .

No candidate shall be admitted for the postgraduate degree course unless the candidate has obtained and produced the eligibility certificate issued by the University . The candidate has to make the application to the university with the following documents along with the prescribed fee.

1. B.P.T. or B.Sc. (PT) provisional / degree certificate issued by the respective university.
2. Marks cards of all the university examinations passed.
3. Completion of internship certificate.
4. Proof of SC/ST or category-I as the case maybe. Candidate should obtain the eligibility certificate before the last date for admission as notified by the university.

A candidate who has been admitted to postgraduate course should register his/her name in the University within a month of admission after paying the registration fee.

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DURATION OF THE COURSE

The duration of master of physiotherapy course shall be extended over a period of two continuous Years' on a full-time basis. Any break in the career, power of extension of the course and the fixation of the term shall be vested with the University.

MEDIUM OF INSTRUCTION

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

INTAKE

The intake of students to the course shall be in accordance with the ordinance in this behalf. The guide student ration should be1:3 Intake to the Course: (a) An Institution while starting MPT for the first time, the fresh intake to the Master Degree Program in Physiotherapy (MPT) shall not exceed THREE students/ specialty. (b) The University may increase the intake subject to availability of Post Graduate guides and the Institution/College may apply for increase in intake, only after the first batch of students have successfully completed the above course. (c) The Post Graduate intake in the Institution/ College shall not exceed SIX seats/ specialty. (d) Existing institutions affiliated to RGUHS offering MPT, may continue their admission with their existing total intake capacity as approved by RGUHS and Government of Karnataka order. (e) Existing institutions affiliated to RGUHS offering MPT must decide the number of seats they would like to opt for in each specialty and offer them based on the availability of recognized guide for a particular specialty infrastructure and facilities available. However, The Post Graduate intake in the Institution/ College affiliated to RGUHS offering MPT shall not exceed SIX seats/ specialty. (f) Whereas, the University may increase the intake subject to availability of Post Graduate guides and the Institution/ College may apply for increase in intake in existing institutions affiliated to RGUHS offering MPT for not more than SIX seats/ specialty.

b) However, the intake for fresh commencement in new colleges for the first time shall be THREE per specialty. c) The allotment of seats for any specialty shall be subject to availability of recognized guides by RGUHS in the area of specialty chosen. d) A new institution imparting a Master's degree in Physiotherapy can apply for seat enhancement only after the first batch of Master in Physiotherapy students have passed. No increase of intake shall exceed THREE seats per year and per specialty at a time.

GUIDE

Post Graduate Guide: (a) The teacher in a Physiotherapy College having 5 years of full-time teaching experience after obtaining Master Degree Program in Physiotherapy (MPT)and the teacher has been recognized as guide by the University.

(b) Every recognized Post Graduate teacher can guide THREE students/year (c) Whereas, the existing MPT postgraduate guides in institutions affiliated to RGUHS may reapply for their recognition to guide specialty of their choice as per the specialty available in accordance to this ordinance. (d) This ordinance proposes to introduce a total of 7 specialties. This creates a need for guides in 2 additional areas in addition to the existing elective branches. A onetime measure is provided to PG guides to select the specialty branch they would guide. Once selected, the individual will be recognized as a guide for the specialty at University.

The academic qualification and teaching experience required for recognition by this university is as per the criteria for recognition of MPT teachers for guides. Criteria for recognition of MPT teacher / guide 1. M.Sc. (PT) /MPT with five years teaching experience working on a full-time position at a Recognized institution. 2. The age of guide / teacher shall not exceed 63years. 3.

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The guide student ratio should be1:3 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.

COURSE CONTENT & STRUCTURE

The course and structure are outlined under Subjects of Specialty as follows

SPECIALTY	Teaching & Learning Methods	Weekly Class Hours	Total Hours
a) Principles of Physiotherapy Practice b) Research Methodology and Biostatistics c) Exercise Physiology d) Electrophysiology e) Applied Anatomy, Applied Physiology and Biomechanics in the area of specialty f) Physical and Functional Diagnosis relevant to specialty g) Treatment planning and Physiotherapy Management h) Recent Advances in the area specialty	Lectures	3	180
	Seminars	3	180
	Practical and Demonstrations	5	360
	Discussions	3	180
	Case presentations Journal	3	180

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	Teaching / Pedagogy	3	180
Synopsis & Dissertation work	Training	3	210
Field Visits, Participation in Workshops & Conference			60

ATTENDANCE:

A candidate is required to attend a minimum of 80% of training and of the total classes conducted during each academic year of the MPT course. Provided further, leave of any kind shall not be counted as part of academic term without prejudice to minimum 80% of training period every year. Any student who fails to complete the course in this manner shall not be permitted to appear the University Examinations. A candidate who does not satisfy the requirement of attendance even in one subject or more will not be permitted to appear for University Examination. He / She will be required to make up the deficit in attendance to become eligible to take subsequent examination.

METHOD OF TRAINING:

The training of postgraduate 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, care demonstrations, clinics, journal review meetings & Contineuing Professional Education.

Every candidate should be required to participate in the teaching and training programs of undergraduate students. Training should include involvement in laboratory experimental work and research studies. Clinical Facility: Every Institution/College shall have provision for clinical facility for the specialties offered. This must be available in your own hospital or affiliated hospital. Clinical Department required in the Hospital. Every Institution/College shall have provision for clinical facility as specified in Schedule III of the BPT Ordinance 2016 The minimum number of beds required for Master degree program is 150. They may be distributed for the purposes of clinical teaching as specified in Schedule III of the BPT Ordinance 2016. OPD – in campus requirement Minimum number of outpatient flow shall be 20 per day in the College campus. This is in addition to the OPD at the attached hospital of the college. OPD Unit: Mandatory 2000 sq. ft (minimum) to accommodate exercise and electro therapy units and make provision for mat area and a consultation room. An outpatient department at the tie up facility cannot be considered as an independent OPD Unit of the college. Staff Room of 200 Sq. ft. to be provided for staff in OPD unit. Laboratories: (a) Every Institution/College running Master Degree Program in Physiotherapy (MPT) shall have adequate laboratory facilities as specified in the ordinance for Bachelor of Physiotherapy, BPT (b) The standard of such laboratory, space, equipment, supplies, and other facilities shall be in consonance with the ordinance for BPT i. Biomechanics / (Research Lab) ii. Electro therapy Lab iii. Exercise therapy Lab Each

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lab shall have a minimum area of 800 sq. ft comprising of 5 treatment tables. The Physiotherapy Labs must have the necessary equipment as prescribed the BPT Ordinance Practical: (a)The students shall carry out the practical learning under the guidance and supervision of a recognized guide. (b)Every batch for practical learning shall consist of not more than SIX students. (c)e – Learning shall be part and parcel of the Master Degree Program in Physiotherapy (MPT). Laboratories: (a) Every Institution/College running Bachelor Degree Program in Physiotherapy shall have adequate laboratory facilities specified in Schedule IV of the BPT Ordinance. (b) The standard of such laboratory, space, equipment, supplies, and other facilities shall be in consonance with Schedule IV of the BPT Ordinance. MPT course – Mandatory additional clinical section/ equipment/ Lab requirement. The detailed list is provided in the curriculum under each Specialty area and the same is a part of this ordinance (a) MPT –MSK i. Affiliation with a hospital having Orthopedic department must be established if offering this elective ii. The center MUST have the equipment and facilities mentioned in the curriculum for this specialty. (b) MPT –Sports i. Affiliation with a Sports facility must be established if offering this elective. ii. A working MOU for utilizing the Lab facilities at the Affiliated Sports facility will be acceptable. iii. The center MUST have the equipment and facilities mentioned in the curriculum for this specialty. iv. (c) MPT –CVP i. Affiliation with a hospital having General Medicine, General Surgery, Pulmonary and Cardiac department, Medical and surgical ICU, Burns and Plastic surgery department must be established if offering this specialty. ii. The center MUST have the equipment and facilities mentioned in the curriculum for this specialty.

MONITORING PROCESS OF STUDENTS (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 is 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 checklist are given in the table 1 to 7 (APPENDIX) which may be copied and used Portfolio: Every candidate shall maintain a work diary and record his/her participation in the training programmers 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 of 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 periodic tests. 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 Department and sent to the University, when called for.

DISSERTATION

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. This may include qualitative research, systematic review or empirical research. The results 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 a hypothesis search and review of literature getting

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acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results and drawing conclusions. Every candidate shall submit to the Registrar of university in the prescribed proforma a synopsis containing particulars of proposed dissertation work within 6 months 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. Guide will be only a facilitator, advisor of the concept and hold responsible in correctly directing the candidate in the methodology and not responsible for the outcome and results. The written text of dissertation shall not be less than 50 pages and shall not exceed 200 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. Dissertation thus prepared shall be submitted to the Registrar (Evaluation) as per the format notified by the University, three months before final examination on or before the dates notified by the university. The examiners appointed by the university shall valuate the dissertation. Approval of dissertation work is an essential precondition for a candidate to appear in the university examination. The dissertation shall be valued by the evaluator (Examiners) apart from the guide out of which one is external outside the university and one internal from other college of the same university. Any one-evaluator acceptance other than the guide will be considered as a precondition for eligibility to take the examination. Dissertation once defended need not be defended at successive examination attempts.

SCHEDULE OF EXAMINATION

The University shall conduct examination for MPT course at the end of 2nd year. The Examinations shall be known as MPT Final Examination. A student shall register for all the papers when he/she appears for the first time. If a student fails in theory and/or practical of MPT Final Examination, he/she has to reappear for all the papers of examination in both theory and practical respectively.

PAPER I IS COMMON FOR ALL THE SPECIALTIES

A written examination consisting of 4 question papers each of three hours duration & each paper carrying 100 marks. Particulars of Theory question paper & distribution of marks are shown here in this syllabus.

PARTICULARS OF PRACTICAL AND VIVA-VOCE

Examination will be aimed at examination of clinical skills and competence of the candidates for undertaking independent work as a specialist.

PARTICULARS OF VIVA VOCE

Viva- Voce examination shall aim at assessing depth of knowledge, logical reasoning, confidence & oral communication skills and spotters. Special emphasis shall be given to dissertation work during the MPT Part examination. (The Student need not defend their dissertation at successive attempts). The marks of Viva-Voce examination shall be included in the clinical examination to calculate the percentage and declaration of results.

EXAMINERS

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Practical– I - There shall be 2 examiners. One of them shall be external outside the zone from the same specialty and the other shall be internal from the same specialty from the same college. Practical – II - There shall be 2 examiners. One of them shall be external outside the University from the same specialty and the other will be guide assigned to the student from the same college.
CRITERIA FOR DECLARING PASS IN THE UNIVERSITY EXAMINATION
A candidate shall be declared pass if he / she secures a 50% of marks in theory aggregate and secures a 50% of marks in Practical / Clinical and Viva-Voce aggregate. DECLARATION OF CLASS First class with distinction – 75% & above in aggregate provided the candidate passes the examination in 1st attempt. First class – 60% & above in aggregate provided the candidate pass the examination in 1stattempt. Pass – 50% of maximum marks in theory aggregate and 50% of maximum marks in clinical and Viva-Voce aggregate.

DESCRIPTIVE COURSE CONTENT

Paper I
Fundamentals in Physiotherapy , Pedagogy and Research
Principles of Physiotherapy
Definition of Physiotherapy, Scope of Practice
b. General and Professional competencies
c. Physiotherapy Knowledge, Skill and Education Framework
d. Principles of Evidence Based Practice in Physiotherapy
a. History taking, assessment tests, Patient Communication, documentation of findings, treatment planning and organization.
b. Documentation of rehabilitation assessment and management using International Classification of Functioning Disability and Health (ICF).
c. Use of Standardized scales and tests in various assessments. Psychometric properties and its Interpretation in Physiotherapy practice.
2. Core Professional Values in Physiotherapy including Professional and Research Ethics
a. Introduction to World Physiotherapy Standards of Physical Therapy Practice Guideline
b. Core Professional Values across Different Countries and Regions
c. ICMR Ethical Guidelines
d. Ethical issues in practice of physiotherapy.
3. Research Methodology and Biostatistics
a. Designing Clinical Research: Basic Ingredients

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i. Getting Started:
The Anatomy and Physiology of Clinical Research
ii. Fundamentals of Literature Search and Review
iii. Conceiving the Research Question and Developing the Study Plan
iv. Choosing the Study Subjects: Specification, Sampling, and Recruitment
v. Planning the Measurements: Precision, Accuracy, and Validity
vi. Hypotheses and Underlying Principles to Estimating Sample Size and Power
b. Designing Clinical Research: Study Designs
i. Designing Cross-Sectional, Case–Control and Cohort Studies
ii. Enhancing Causal Inference in Observational Studies iii. Designing a Randomized Blinded Trial, Alternative Clinical Trial Designs and their Implementation Issues iv. Designing Studies of Diagnostic Tests v. Research Using Existing Data vi. Fundamentals of Qualitative Research Methods vii. Fundamentals of Systematic Reviews and Metaanalysis viii. Designing a systematic review protocol c. Implementation of Clinical Research i. Designing Questionnaires, Interviews, and Online Surveys ii. Implementing the Study and Quality Control iii. Data Management iv. Designing qualitative studies d. Biostatistics i. Basic Fundamentals of Biostatistics ii. Probability and Normal Distribution iii. Descriptive Statistics: Measures of Central Tendency and Spread iv. Hypothesis Testing: One-Sample Inference, TwoSample Inference, Multi-sample Inference, v. Hypothesis Testing: Nonparametric Methods, Categorical Data vi. Regression, Correlation Methods and Diagnostic Tests vii. Data synthesis in qualitative design e. Consuming and Disseminating Research i. Strategies for following Emerging Evidence, Clinical Practice Guidelines and Clinical pathways ii. Best Practices in Research Dissemination iii. Writing a Manuscript for Publication 4. Exercise Physiology a. Fundamentals of Human Energy Transfer b. Source of Nutrition and Energy, Macro and Micro Nutrients, Food Energy and Optimum Nutrition for Exercise c. Energy Expenditure During Rest and Physical Activity d. Measuring and Evaluating Human Energy-Generating Capacities During Rest and Exercise e. Responses and Adaptations of Pulmonary, Cardiovascular, Neuromuscular, Musculoskeletal, Endocrine System to Different Types of Exercise and Training f. Body Composition, Its Evaluation, Obesity and Weight Control g. Training the Anaerobic and Aerobic Energy Systems h. Training Muscles to Become Stronger i. Factors Affecting Physiological Function: The Environment and

Special Aids to Performance j. Influence of Age and Gender in Exercise and Training. 5. Electrophysiology a. Anatomy and physiology of peripheral nerve, muscle and neuromuscular junction. b. Electrical properties of muscle and nerve. c. Instrumentation for neuromuscular electrical stimulation. d. Muscles plasticity in response to electrical stimulation. e. Electrical stimulation and its effects on various systems. 6. Pedagogy in Physiotherapy Education a. Competency Based Education in Physiotherapy b. Basics of Adult Learning Theories including Learning Styles and Motivation c. Formulating Intended Learning Outcomes Including Tyler’s principles, Bloom's Taxonomy, Miller's Pyramid, Clinical Competence, and Dreyfus' Model of Skill Acquisition d. Instructional Design and Individual Assessment such as Multiple-choice Question Writing, Skill assessment, Oral

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Presentation, and Rubrics and Standardization e. Instructional Techniques: Knowledge Transfer f. Instructional Techniques: Skill Development g. Instructional Techniques: Attitudes h. Instructional Techniques: Teaching with Technology i. Academic Planning and Organisation 7. Management, Entrepreneurship and Leadership in Physiotherapy Practice a. Introduction to Management in Physiotherapy: Definition, Principles, Functions and Evolution of Management Thought b. Management Process: Planning, Organizing, Directing, Controlling. Decision making. c. Responsibilities of the Physiotherapy Manager: Staffing Responsibilities; Responsibility for Patient Care; Fiscal Responsibilities; Responsibility for Risk Management; Legal and Ethical Responsibilities; Communication Responsibilities d. Entrepreneurship in Physiotherapy Practice: Need, Advantages and Opportunities, Challenges and Barriers e. Leadership: Need, Relevance, Competencies and Characteristics References 1. World Physiotherapy (2019) Description of Physical Therapy: Policy Statement. Available from

World Physiotherapy (2011) Physical Therapist Professional Entry Level Education Guideline. (Available from: https://world.physio/sites/default/files/2020-07/G-2011-Entrylevel-education.pdf) 3. CSP (2011) Physiotherapy Framework: Putting physiotherapy Behaviours, Values, Knowledge & Skills into Practice [updated May 2020](Available from: https://www.csp.org.uk/professionalclinical/cpd-education/professional-development/professionalframeworks) 4. Expected Minimum Competencies for an Entry Level Physiotherapist in the Europe Region World Physiotherapy Guidance Document (Available from: https://www.erwcpt.eu/education/expected_minimum_compete ncies_for_entry_level) 5. Evidence-Based Medicine: How to Practice and Teach EBM, 2nd Edition: By David L. Sackett, Sharon E. Straus, W. Scott Richardson, William Rosenberg, and R. Brian Haynes, Churchill Livingstone, 2000 6. Rob Herbert, Gro Jamtvedt, Kåre Birger Hagen, Judy Mead. Practical Evidence-Based Physiotherapy (Second Edition), Churchill Livingstone, 7. 2011, ISBN 9780702042706, 8. World Physiotherapy (2011) Standards of Physical Therapy Practice Guideline(Available from: https://world.physio/sites/default/files/2020-06/G-2011- Standards-practice.pdf) 9. 2017 ICMR National Ethical Guidelines for Biomedical and Health Research involving Human Participant 10.2020 ICMR Policy on Research Integrity and Publication Ethics (RIPE) 11.Designing Clinical Research 4th Edition. Stephen B. Hulley et al. Published By: Lippincott Williams & Wilkins. ISBN-13: 9781469840543 12.Medical Biostatistics (Chapman & Hall/CRC Biostatistics Series). 4th Edition 2017. Abhaya Indrayan, Rajeev Kumar Malhotra. Chapman and Hall/CRC. ISBN 9781498799539 13.Exercise Physiology Nutrition, Energy, and Human Performance. 8th Edition. William D. McArdle PhD, Frank I. Katch , Victor L. Katch. Lippincott Williams & Wilkins. ISBN/ISSN: 9781451191554 14.Principles of Medical Education. 4th Edition. Tejinder Singh, Piyush Gupta, Daljit Singh. 2013. Jaypee Publishers. 15.Management in Physical Therapy Practices, 2nd Edition. Catherine G. Page PT, MPH, PhD. ISBN-13: 978-0-8036-4033-7 16.Heather A. Current thinking on Leadership and Physiotherapy Practice. 2016. Report Prepared for AGILE Professional Network of the Chartered Society of Physiotherapy (Available from: https://agile.csp.org.uk/system/files/current_leadership_thinking _and_physiotherapy_practice.pdf)

Paper – I

Fundamentals in Physiotherapy , Pedagogy and Research

1. Principles of Physiotherapy

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a. Definition of Physiotherapy, Scope of Practice b. General and Professional competencies c. Physiotherapy Knowledge, Skill and Education Framework d. Principles of Evidence Based Practice in Physiotherapy a. History taking, assessment tests, Patient Communication, documentation of findings, treatment planning and organization. b. Documentation of rehabilitation assessment and management using International Classification of Functioning Disability and Health (ICF). c. Use of Standardized scales and tests in various assessments. Psychometric properties and its Interpretation in Physiotherapy practice. 2. Core Professional Values in Physiotherapy including Professional and Research Ethics a. Introduction to World Physiotherapy Standards of Physical Therapy Practice Guideline b. Core Professional Values across Different Countries and Regions c. ICMR Ethical Guidelines d. Ethical issues in practice of physiotherapy. 3. Research Methodology and Biostatistics a. Designing Clinical Research: Basic Ingredients i. Getting Started: The Anatomy and Physiology of Clinical Research ii. Fundamentals of Literature Search and Review iii. Conceiving the Research Question and Developing the Study Plan iv. Choosing the Study Subjects: Specification, Sampling, and Recruitment v. Planning the Measurements: Precision, Accuracy, and Validity vi. Hypotheses and Underlying Principles to Estimating Sample Size and Power b. Designing Clinical Research: Study Designs i. Designing Cross-Sectional, Case–Control and Cohort Studies

ii. Enhancing Causal Inference in Observational Studies iii. Designing a Randomized Blinded Trial, Alternative Clinical Trial Designs and their Implementation Issues iv. Designing Studies of Diagnostic Tests v. Research Using Existing Data vi. Fundamentals of Qualitative Research Methods vii. Fundamentals of Systematic Reviews and Metaanalysis viii. Designing a systematic review protocol c. Implementation of Clinical Research i. Designing Questionnaires, Interviews, and Online Surveys ii. Implementing the Study and Quality Control iii. Data Management iv. Designing qualitative studies d. Biostatistics i. Basic Fundamentals of Biostatistics ii. Probability and Normal Distribution iii. Descriptive Statistics: Measures of Central Tendency and Spread iv. Hypothesis Testing: One-Sample Inference, TwoSample Inference, Multi-sample Inference, v. Hypothesis Testing: Nonparametric Methods, Categorical Data vi. Regression, Correlation Methods and Diagnostic Tests vii. Data synthesis in qualitative design e. Consuming and Disseminating Research i. Strategies for following Emerging Evidence, Clinical Practice Guidelines and Clinical pathways ii. Best Practices in Research Dissemination iii. Writing a Manuscript for Publication 4. Exercise Physiology a. Fundamentals of Human Energy Transfer b. Source of Nutrition and Energy, Macro and Micro Nutrients, Food Energy and Optimum Nutrition for Exercise c. Energy Expenditure During Rest and Physical Activity d. Measuring and Evaluating Human Energy-Generating Capacities During Rest and Exercise e. Responses and Adaptations of Pulmonary, Cardiovascular, Neuromuscular, Musculoskeletal, Endocrine System to Different Types of Exercise and Training f. Body Composition, Its Evaluation, Obesity and Weight Control g. Training the Anaerobic and Aerobic Energy Systems h. Training Muscles to Become Stronger i. Factors Affecting Physiological Function: The Environment and

Special Aids to Performance j. Influence of Age and Gender in Exercise and Training. 5. Electrophysiology a. Anatomy and physiology of peripheral nerve, muscle and neuromuscular junction. b. Electrical properties of muscle and nerve. c. Instrumentation for neuromuscular electrical stimulation. d. Muscles plasticity in response to electrical stimulation. e. Electrical stimulation and its effects on various systems. 6. Pedagogy in Physiotherapy Education a. Competency Based Education in

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Physiotherapy b. Basics of Adult Learning Theories including Learning Styles and Motivation c. Formulating Intended Learning Outcomes Including Tyler's principles, Bloom's Taxonomy, Miller's Pyramid, Clinical Competence, and Dreyfus' Model of Skill Acquisition d. Instructional Design and Individual Assessment such as Multiple-choice Question Writing, Skill assessment, Oral Presentation, and Rubrics and Standardization e. Instructional Techniques: Knowledge Transfer f. Instructional Techniques: Skill Development g. Instructional Techniques: Attitudes h. Instructional Techniques: Teaching with Technology i. Academic Planning and Organisation 7. Management, Entrepreneurship and Leadership in Physiotherapy Practice a. Introduction to Management in Physiotherapy: Definition, Principles, Functions and Evolution of Management Thought b. Management Process: Planning, Organizing, Directing, Controlling. Decision making. c. Responsibilities of the Physiotherapy Manager: Staffing Responsibilities; Responsibility for Patient Care; Fiscal Responsibilities; Responsibility for Risk Management; Legal and Ethical Responsibilities; Communication Responsibilities d. Entrepreneurship in Physiotherapy Practice: Need, Advantages and Opportunities, Challenges and Barriers e. Leadership: Need, Relevance, Competencies and Characteristics References 1. World Physiotherapy (2019) Description of Physical Therapy: Policy Statement. Available from https://world.physio/sites/default/files/2020-07/PS-2019-Description-of-physical-therapy.pdf

2. World Physiotherapy (2011) Physical Therapist Professional Entry Level Education Guideline. (Available from: https://world.physio/sites/default/files/2020-07/G-2011-Entrylevel-education.pdf) 3. CSP (2011) Physiotherapy Framework: Putting physiotherapy Behaviours, Values, Knowledge & Skills into Practice [updated May 2020](Available from: https://www.csp.org.uk/professionalclinical/cpd-education/professional-development/professionalframeworks) 4. Expected Minimum Competencies for an Entry Level Physiotherapist in the Europe Region World Physiotherapy Guidance Document (Available from: https://www.erwcpt.eu/education/expected_minimum_compete ncies_for_entry_level) 5. Evidence-Based Medicine: How to Practice and Teach EBM, 2nd Edition: By David L. Sackett, Sharon E. Straus, W. Scott Richardson, William Rosenberg, and R. Brian Haynes, Churchill Livingstone, 2000 6. Rob Herbert, Gro Jamtvedt, Kåre Birger Hagen, Judy Mead. Practical Evidence-Based Physiotherapy (Second Edition), Churchill Livingstone, 7. 2011, ISBN 9780702042706, 8. World Physiotherapy (2011) Standards of Physical Therapy Practice Guideline(Available from: https://world.physio/sites/default/files/2020-06/G-2011- Standards-practice.pdf) 9. 2017 ICMR National Ethical Guidelines for Biomedical and Health Research involving Human Participant 10.2020 ICMR Policy on Research Integrity and Publication Ethics (RIPE) 11.Designing Clinical Research 4th Edition. Stephen B. Hulley et al. Published By: Lippincott Williams & Wilkins. ISBN-13: 9781469840543 12.Medical Biostatistics (Chapman & Hall/CRC Biostatistics Series). 4th Edition 2017. Abhaya Indrayan, Rajeev Kumar Malhotra. Chapman and Hall/CRC. ISBN 9781498799539 13.Exercise Physiology Nutrition, Energy, and Human Performance. 8th Edition. William D. McArdle PhD, Frank I. Katch , Victor L. Katch. Lippincott Williams & Wilkins. ISBN/ISSN: 9781451191554 14.Principles of Medical Education. 4th Edition. Tejinder Singh, Piyush Gupta, Daljit Singh. 2013. Jaypee Publishers. 15.Management in Physical Therapy Practices, 2nd Edition. Catherine G. Page PT, MPH, PhD. ISBN-13: 978-0-8036-4033-7 16.Heather A. Current thinking on Leadership and Physiotherapy Practice.

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2016. Report Prepared for AGILE Professional Network of the Chartered Society of Physiotherapy (Available from: https://agile.csp.org.uk/system/files/current_leadership_thinking_and_physiotherapy_practice.pdf)

OBJECTIVES:

On Completion of the course, the post graduate will be able to 1. Exercise professional autonomy based on sound knowledge, skills and discipline at par with global standards in the area of pediatric physiotherapy 2. Practice within the professional code of ethics and conduct, and the standards of practice within legal boundaries. 3. Identify, analyze pediatric disorders/ dysfunctions within the boundaries of physiotherapy practice and arrive at an appropriate hypothesis based on sound clinical reasoning 4. Work with integrity and autonomy in an interdisciplinary team 5. Involve in undergraduate and post graduate teaching with competence in pediatric physiotherapy 6. Conduct research activities and utilize findings for professional development and lifelong learning

SCOPE:

A specialised physiotherapist in Peadiatrics will be competent to evaluate, assess and arrive at reasoning-based hypothesis in pediatric disorders. Pediatric Physiotherapists work based on the ICF framework to develop, maintain, restore and optimize health and function within the pediatric age group They will be competent to use current evidence to treat and manage a range of cardiopulmonary, orthopedic, neurological and other disorders in children. They will be competent to act as a team leader of a multidisciplinary rehabilitation team and contribute to interdisciplinary care planning and implementation of pediatric habilitation methods. They will be competent to take up research and academic positions in their area of expertise. They will be competent to be autonomous clinical practitioners

PAPER – II

APPLIED ANATOMY, PHYSIOLOGY AND BIOMECHANICS IN PAEDIATRICS I,II,III,IV

1. General Paediatrics a. Neonatal and Paediatric Advanced Life Support (NALS and PALS). b. Basics of Genetics and Applied Genetics in Paediatrics. c. Exercise physiology in paediatrics- Adaptive response (acute and chronic) on various systems d. Nutritional requirements &Immunization schedule in paediatric population. e. Neurophysiology of movement. f. Theories of pain and its application in paediatrics. 2. Developmental Paediatrics a. Embryological Development and Applied embryology- General, Cardiovascular system, Neurological, Musculoskeletal System, Respiratory system and other systems of human body b. Normal and Applied Growth and Development/Maturation - Anthropometric changes across paediatric life span, Cardiovascular system, Nervous System, Musculoskeletal System, Respiratory system and other systems of human body c. Development - Theories of Development; Typical and Atypical development; Sensory system development; Reflex maturation and Reactions 3. System Based Applied Paediatrics a. Theories of Motor Control and Motor Learning and its application. b. Development and applied aspects of Bowel and Bladder function. c. Development and applied aspects of Gastrointestinal function. d. Development and applied aspects of Balance, Coordination and Gait. e. Development of Posture and applied Postural deviations. f. Cardio-respiratory physiology in pediatrics

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PAPER- III

PHYSICAL AND FUNCTIONAL DIAGNOSIS IN PEDIATRICS I,II,III,IV

1. Assessment in General Paediatrics a. Prenatal screening and assessment of movement b. Clinical identification of possible genetic abnormalities c. Interpretation of assessments based on International Classification of Functioning, Disability and Health (ICF) guidelines in Paediatric conditions. d. Assessment of motor control and motor learning. e. Evaluation and interpretation of sensory disorders (autism and autism related disorders) including perceptual and behavioural disorders. f. Assessment, physical and functional diagnosis of gait using various scales and use, interpretation of laboratory-based gait assessment. g. Assessment, physical and functional diagnosis of balance and coordination using various scales and use, interpretation of laboratory- based assessment h. Ergonomic assessment of Children in Integrated Schools. i. Motor Control Assessment - Voluntary control assessment and Selective Motor Control. j. Assessment of Paediatric disorders using standardised test /scales at all levels of dysfunction in various condition of paediatric population with their psychometric properties 2. Assessment in Developmental Paediatrics a. Growth assessment. b. Developmental screening and assessment (Norm referenced, Criterion referenced, Functional and other scales for screening and assessment of various disorders in paediatric population). c. Assessment of nutrition and obesity in paediatrics. d. Assessment of High-risk Neonates/Children. e. Assessment principles in specific genetic disorders with motor system involvement- Down syndrome, bleeding disorders 3. Assessment in System based Paediatrics a. Assessment of children in Intensive Care Unit. b. Physical and Functional assessment, Differential diagnosis and Investigations including Laboratory, Electrophysiological, radiological investigations in Neurological, Cardio-respiratory, Metabolic, Musculoskeletal and various conditions of the paediatric population. c. Physical activity and Fitness assessment (including Exercise Tolerance Testing) d. Assessment, physical and functional diagnosis in paediatrics Oncology. e. Assessment, physical and functional diagnosis in paediatrics Burns.

f. Pre and post- surgical assessment in Paediatric conditions. g. Assessment of Integumentary System. h. Assessment, physical and functional diagnosis of Adolescent Health Disorders and paediatric Mental Health. i. Pain assessment in Neonates and Children. j. Assessment of Movement dysfunction in Paediatrics. k. Assessment of DCD, LD and ADHD.

PAPER- IV

PAEDIATRIC PHYSIOTHERAPY / PHYSIOTHERAPEUTICS IN PAEDIATRICS

1. Management in General Paediatrics a. Goal setting and treatment guidelines based on International Classification of Functional Disability and Health (ICF) in Paediatric conditions. b. Early Intervention in neuro developmental disorders and orthopedic disorders c. Management of Sensory Disorders including Perceptual and Behavioural Disorders. d. Management of motor system disorders e. Promotion of Physical activity and Fitness in Typical and Atypical Paediatric population. f. Management of disorders of function, posture and gait g. Prescription and Application of Orthosis, Prosthesis, Assistive and Adaptive devices, seating systems and mobility devices h. Technology based intervention in Paediatric Physiotherapy. i. Role of Paediatric Physiotherapist in Mainstream, Integrated and Special Schools. j. Recovery process in Nervous System and Neural plasticity.

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k. Role of Paediatric Physiotherapy in Community. l. Exercise prescription in adolescents 2. Management in Developmental Paediatrics: a. Management of Growth disorders. b. Management of Developmental disorders and genetic disorders specifically bleeding disorders, down syndrome, inborn errors of metabolism and muscular dystrophies 3. Management in System Based Paediatrics a. Management in Neonatal Intensive Care Unit (NICU), Paediatric Intensive Care Unit (PICU) and High-risk babies. b. Management of Neuro-paediatric, Cardio-respiratory, Metabolic and Musculoskeletal conditions c. Management of Paediatric Conditions – Oncology, Burns, Noncommunicable diseases, Integumentary systems, amputations d. Management of Pain in Neonates and Children using various modalities. e. Management of Motor dysfunction in Paediatrics. f. Management of Oromotor and Orosensory dysfunctions. g. Management of Myopathic and Neuropathic conditions. h. Management in neurodevelopment disorders -LD, ADHD, DCD. i. Application of yoga in paediatric population

REFERENCES:

Recommended Books 1. Gallahue, D. L., Ozmun, J. C., & Goodway, J. (2006). Understanding motor development: Infants, children, adolescents, adults, 4/e. Mcgraw-hill. 2. Stamer, M. H. (2015). Posture and movement of the child with cerebral palsy. PRO-ED, Incorporated. 3. Rennie, J. M., & Kendall, G. (2013). A Manual of Neonatal Intensive Care, 5/e. CRC Press. 4. Illingworth, R. S. (2002). The normal child: some problems of the early years and their treatment, 10/e. WB Saunders Company. 5. Illingworth, R. S. (2013). The development of the infant and young child: Normal and abnormal, 10/e. Churchill Livingstone. 6. Fanaroff, J. M., &Fanaroff, A. A. (2012). Klaus and Fanaroff's Care of the High-Risk Neonate, 6/e. Elsevier Health Sciences. 7. Jenson, H.B,Kliegman, R. M., Behrman, R. E. (2003). Nelson Textbook of Paediatrics, 17/e. Elsevier Health Sciences. 8. Effgen, S. K. (2012). Meeting the physical therapy needs of children. FA Davis. 9. Armstrong, N., & Van Mechelen, W. (Eds.). (2008). Paediatric exercise science and medicine. Oxford University Press. 10.Long, T. (2018). Handbook of paediatric physical therapy, 2/e. Lippincott Williams & Wilkins. 11.Fenichel, G. M. (2009). Clinical paediatric neurology: a signs and symptoms approach, 5/e. Elsevier Health Sciences. 12.Parthasarathy, A. (2016). IAP Textbook of pediatrics, 3/e. JP Medical Ltd. 13.Bly, L. (1994). Motor skills acquisition in the first year: an illustrated guide to normal development. Psychological Corp. 14.Dubowitz, L. M., Dubowitz, V., &Mercuri, E. (1999). The neurological assessment of the preterm and full-termnew-born infant, 2/e. Cambridge University Press. 15.Pountney, T. (2007). Physiotherapy for children. Elsevier Health Sciences. 16.DeGangi, G. A. (2017). Paediatric disorders of regulation in affect and behaviour: A therapist's guide to assessment and treatment. Academic Press. 17.DiFiore, J. (2013). The complete guide to postnatal fitness. A&C Black. 18.Campbell, S. K., Palisano, R. J., & Vander Linden, D. W. (2006). Physical therapy for children, 4/e. Saunders. 19.Haddad, G. G., Abman, S. H., &Chernick, V. (2002). Chernick-Mellins basic mechanisms of paediatric respiratory disease, 2/e. PMPH-USA. 20.Kliegman, R. M., Stanton, B. M., Geme, J. S., & Schor, N. F. (2015). Nelson Textbook of Pediatrics, 20/e, Vol 1, 2, 3. Elsevier Health Sciences. 21.Levitt, S., & Addison, A. (2018). Treatment of cerebral palsy and motor delay, 5/e. Wiley-Blackwell. 22.Connolly, B. H., & Montgomery, P. (2005). Therapeutic exercise in developmental disabilities, 3/e. Slack Incorporated. 23.Stamer, M. H. (2015). Posture and movement of the child with cerebral palsy, 2/e. PRO-ED, Incorporated. 24.Bly, L. (1999). Baby treatment based on NDT principles. Therapy Skill Builders. 25.Dubowitz, V. (1980). The floppy infant, 2/e. Cambridge University Press. 26.Scherzer, A. L. (2000). Early diagnosis

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and interventional therapy in cerebral palsy: an interdisciplinary age-focused approach, 3/e. Informa Health Care. 27.Tecklin, J. S. (Ed.). (2008). Paediatric physical therapy, 5/e. Lippincott Williams & Wilkins. 28.Kimura, J. (2001). Electrodiagnosis in diseases of nerve and muscle: principles and practice, 4/e. Oxford university press. 29.Carr, J. H. (2011). Neurological rehabilitation, 2/e. Elsevier India. 30.Shumway-Cook, A., & Woollacott, M. H. (2007). Motor control: translating research into clinical practice, 2/e. Lippincott Williams & Wilkins.

Recommended Journals 1. Paediatric Physical Therapy – Publisher: Lippincott, Williams & Wilkins. 2. Developmental Medicines & child neurology – Publisher: Wiley-Blackwell 3. Physical and Occupational Therapy in Paediatrics – Publisher: Informa 4. Disability and rehabilitation - Publisher: Taylor & Francis. 5. Clinical rehabilitation- Publisher: Sage 6. International journal of developmental disabilities - Publisher: Maney 7. Physical medicine and rehabilitation – Publisher: Austin

FACULTY & INFRASTRUCTURE REQUIREMENTS

1. Minimum Faculty Position for MPT- Ped program a. Professor/ Associate Professor – ONE b. Assistant Professor – ONE c. Faculty must be recognized from the area of Pediatric Specialty d. Faculty position is inclusive from the minimum faculty position for BPT program 2. Minimum Infrastructure requirement a. Affiliation with a hospital having Pediatric department (with both in-patient and out-patient facility) with NICU, a high risk follow up clinic and early intervention program must be established if offering this specialty b. The center MUST have ALL the equipment and facilities mentioned under the METHODS OF TRAINING in this ordinance for this specialty in consonance with Schedule IV of the BPT Ordinance. c. Institution must be attached to one special school d. A pediatric physiotherapy unit must be established/ available in the institution/ affiliated hospital with the facilities and equipment required to assess and treat children referred for pediatric physiotherapy. e. Separate Lab or Shared lab area space of 1000 sq.ft area with Walkway and Community ambulation Training path 10 metres f. Own or in attached facility [Neuroimaging, Electro diagnostic and Biochemical investigation facility] g. The Pediatric-physiotherapy unit MUST have all facilities and equipment for Pediatric-rehabilitation viz Cognition assessment, Perception assessment, Sensory assessment, Muscle Strength assessment, Motor assessment, Balance, Gait assessment, Grip and Grasp assessment, Functional Assessment, Physical Activity Measurement, Assistive devices, Mobility devices

I SEMESTER

PAPER CODE	SUBJECTS	INTERNAL	EXTERNAL	TOTAL
1MPTP01	Fundamentals in Physiotherapy,Pedagogy and Research I	40	60	100
1MPTP02	APPLIED ANATOMY, PHYSIOLOGY AND BIOMECHANICS IN PAEDIATRICS I	40	60	100

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1MPTP03	PAPER- III PHYSICAL AND FUNCTIONAL DIAGNOSIS IN PEDIATRICS I	40	60	100
1MPTP04	PAEDIATRIC PHYSIOTHERAPY / PHYSIOTHERAPEUTICS IN PAEDIATRICS I	40	60	100
1MPTP05	PRACTICALS I	40	60	100

II SEMESTER

PAPER CODE	SUBJECTS	INTERNAL	EXTERNAL	TOTAL
2MPTP01	Fundamentals in Physiotherapy,Pedagogy and Research II	40	60	100
2MPTP02	APPLIED ANATOMY, PHYSIOLOGY AND BIOMECHANICS IN PAEDIATRICS II	40	60	100
2MPTP03	PAPER- III PHYSICAL AND FUNCTIONAL DIAGNOSIS IN PEDIATRICS II	40	60	100
2MPTP04	PAEDIATRIC PHYSIOTHERAPY / PHYSIOTHERAPEUTICS IN PAEDIATRICS II	40	60	100
2MPT03	PRACTICALS II	40	60	100

III SEMESTER

PAPER CODE	SUBJECTS	INTERNAL	EXTERNAL	TOTAL
1MPTP01	Fundamentals in Physiotherapy,Pedagogy and Research III	40	60	100
1MPTP02	APPLIED ANATOMY, PHYSIOLOGY AND BIOMECHANICS IN PAEDIATRICS III	40	60	100
1MPTP03	PAPER- III PHYSICAL AND FUNCTIONAL DIAGNOSIS IN	40	60	100

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	PEDIATRICS III			
1MPTP04	PAEDIATRIC PHYSIOTHERAPY / PHYSIOTHERAPEUTICS IN PAEDIATRICS III	40	60	100
1MPTP05	PRACTICALS III	40	60	100

IV SEMESTER

PAPER CODE	SUBJECTS	INTERNAL	EXTERNAL	TOTAL
2MPTP01	Fundamentals in Physiotherapy,Pedagogy and Research IV	40	60	100
2MPTP02	APPLIED ANATOMY, PHYSIOLOGY AND BIOMECHANICS IN PAEDIATRICS IV	40	60	100
2MPTP03	PAPER- III PHYSICAL AND FUNCTIONAL DIAGNOSIS IN PEDIATRICS IV	40	60	100
2MPTP04	PAEDIATRIC PHYSIOTHERAPY / PHYSIOTHERAPEUTICS IN PAEDIATRICS IV	40	60	100
2MPTP03	PRACTICALS IV	40	60	100

CHECK LISTS
APPENDIX 1:
TEACHING SKILL EVALUATION FORM
Student:
Date :
Evaluator:
Rating of Skill
5 - Outstanding
4 - Good
3 - Satisfactory
2 - Poor
1 - Unacceptable

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1. Specifies purposes of the lecture clearly in the Introduction 2. Makes clear transitions between segments of the lecture 3. Presents divergent view points for contrast and comparison 4. Uses clear, relevant examples to illustrate main ideas 5. Clarifies technical terminology 6. Speaks at suitable volume/ pace, speaking style 7. Uses eye contact (Scans total audience) 8. Uses a variety of facial expressions 9. Uses hands and arms appropriately/moves purposefully 10. Effectively used Black Board, AV Aids 11. Summary of main points 12. Ask questions 13. Answer questions asked by audience 14. Content coverage 15. Rapport with students Total Score Overall Score 61 – 75 : Excellent 51 – 60 : Good 41 – 50 : Satisfactory 31 – 20 : Poor Less than 20 : Unacceptable

APPENDIX 2:

JOURNAL CLUB PRESENTATION EVALUATION FORM Student : Date : Evaluator : Rating of Skill 5 - Outstanding 4 - Good 3 - Satisfactory 2 - Poor 1 - Unacceptable 1. Article chosen 2. Specifies purposes / goal of the study 3. Whether cross references have been consulted 4. Presents the Methodology Cleary 5. Clarifies Outcome measures 6. Presents the Results Cleary 7. Power of the study 8. Presents the discussion clearly 9. Limitations of the study 10. Ethical issues 11. Describe how the results can or cannot be applied in our situation 12. Their own decision about the utility of the study in our practice 13. Does not needed to reread article 14. Summarizes Presentation 15. Ability to defend their study Total Score Overall Score 61 – 75 : Excellent 51 – 60 : Good 41 – 50 : Satisfactory 31 – 20 : Poor Less than 20 : Unacceptable

APPENDIX 3:

PERFORMANCE EVALUATION FORM Student : Date : Evaluator : Rating of Skill 5 - Outstanding 4 - Good 3 - Satisfactory 2 - Poor 1 - Unacceptable 1. Patient Interview 2. Physiotherapy observation skills 3. Physiotherapy assessment skills 4. Procedural skills 5. Knowledge of physiotherapy Instrumentation 6. Treatment planning 7. Principle of treatment intervention 8. Execution of treatment intervention 9. Evidence Based Practice 10. Practice based learning and improvement 11. Planning and conducting clinical research 12. Work Ethics 13. Interpersonal skills / Communication skills 14. Instructional skills 15. Documentation Total Score Overall Score 61 – 75 : Excellent 51 – 60 : Good 41 – 50 : Satisfactory 31 – 20 : Poor Less than 20 : Unacceptable

APPENDIX 4:

SEMINAR EVALUATION FORM Student : Date : Evaluator : Rating of Skill 5 - Outstanding 4 - Good 3 - Satisfactory 2 - Poor 1 - Unacceptable 1. Met the Professional objectives 2. Makes clear transitions between segments of the lecture 3. Presents divergent view points for contrast and comparison 4. Presentation was logical and clear 5. Clarifies terminologies in Physiotherapy 6. Speaks at suitable volume/ pace, speaking style 7. Eye contact 8. Absence of distracting mannerisms 9. Effectively used Black Board, AV Aids 10. Content coverage 11. Provide appropriate du ration 12. Interaction with others was beneficial 13. Provided concise and thoughtful answer to the questions asked by the audience 14. Demonstrated competence in Subject matter 15. Present the references and Sources effectively Total Score Overall Score 61 – 75 : Excellent 51 – 60 : Good 41 – 50 : Satisfactory 31 – 20 : Poor Less than 20 : Unacceptable

APPENDIX 5:

CASE PRESENTATION EVALUATION FORM Student : Date : Evaluator : Rating of Skill 5 - Outstanding 4 - Good 3 - Satisfactory 2 - Poor 1 - Unacceptable 1. Subjective Examination 2. Objective Examination 3. Logical sequences 4. Treatment planning 5. Demonstration of examination skills 6. Demonstration of intervention skills 7. Explain the rationale of Treatment interventions 8. Understanding of movement

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dysfunction 9. Clarity of Presentation 10. Answer to the questions Total Score Overall Score 41 – 50 : Excellent 31 – 40 : Good 21 – 30 : Satisfactory 15 – 20 : Poor Less than 15 : Unacceptable

APPENDIX 6:

DISSERTATION PRESENTATION EVALUATION FORM Student : Date : Evaluator : Rating of Skill 5 - Outstanding 4 - Good 3 - Satisfactory 2 - Poor 1 - Unacceptable 1. Selection of topic 2. Knowledge about the selected topic 3. Need of the study 4. Statement of hypothesis 5. Review of literature 6. Selection of research design 7. Selection of appropriate Sample size 8. Selection of appropriate Sampling technique 9. Selection of appropriate statistical tool 10. Selection of appropriate Outcome measures 11. Quality of protocol 12. Power of the study 13. Logical sequence of presentation 14. Answer questions asked by evaluators 15. Use of research terminologies Total Score Overall Score 61 – 75 : Excellent 51 – 60 : Good 41 – 50 : Satisfactory 31 – 20 : Poor Less than 20 : Unacceptable

APPENDIX 7:

EVALUATION OF DISSERTATION WORK BY THE GUIDE Student : Date : Guide : Rating of Skill 5 - Outstanding 4 - Good 3 - Satisfactory 2 - Poor 1 - Unacceptable 1. Periodic consultation with the guide 2. Regular collection of case material 3. Depth of analysis and discussion 4. Presentation of findings 5. Quality of final output Total Score Overall score: 21 – 25 - Outstanding 16 – 20 - Good 11 – 15 - Satisfactory 6 – 10 - Poor 5 and below 5 – Unacceptable

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