STATE MEDICAL FACULTY OF WEST BENGAL

COURSE SYLLABUS : DPT COURSE

The course of DPT will be for a period of two years and additional three months for undergoing training after passing final DPT Examination (After publication of result)

The syllabus for 1\textsuperscript{st} Academic year will consist of following subjects:

1. Human Anatomy relating to Physiotherapy
2. Human physiology relating to Physiotherapy
4. Physics related to Electrotherapy, Actinotherapy, Cryotherapy & Hydrotherapy.

The syllabus for 2\textsuperscript{nd} Academic year will consist of following subjects:

1. Therapeutic Exercises, Massage, Movements and Manipulations.
2. Electrotherapy, Actinotherapy, Cryotherapy & Hydrotherapy.
3. Physiotherapy in Medical, Surgical, Orthopedic, Gynecological and other specialized conditions.
4. Concepts of Rehabilitation, Pathology, Microbiology, Psychology, Budget, Planning & Administration.

Examination:-

There would be two examinations one after completion of one year duration (Preliminary examination) another after completion of two year duration (Final examination)

\textbf{Subject included in Preliminary Examination and Marks Distribution:}

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>THEORY</th>
<th>ORAL &amp; PRACTICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper – I</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Anatomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper – II</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Physiology</td>
<td></td>
<td></td>
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<tr>
<td>Paper – III</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Bio-Mechanics &amp;</td>
<td></td>
<td></td>
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<tr>
<td>Kinesiology including</td>
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<tr>
<td>Fundamental of Exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper – IV</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Physics related to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrotherapy &amp; Actinotherapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryotherapy &amp; Hydrotherapy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A candidate securing 75% marks in any subject will be awarded Honors in that subject.
Subject included in Final Examination and Marks Distribution:

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>THEORY</th>
<th>ORAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FULL MARK</td>
<td>PASS MARK</td>
</tr>
<tr>
<td><strong>Paper – I</strong></td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Therapeutic Exercise, Massage, Movements &amp; Manipulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Paper – II</strong></td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Electrotherapy, Actinotherapy, Cryotherapy &amp; Hydrotherapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Paper – III</strong></td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Physiotherapy in Medical Surgical, orthopedic, Gynecological and other Special conditions.</td>
<td></td>
<td></td>
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<tr>
<td><strong>Paper – IV</strong></td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Concepts of Rehabilitation, Pathology, Microbiology, Psychology, Budget, Planning &amp; Administration.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A candidate securing 75% marks in any subject will be awarded Honors in that subject.

**Duration (Hours) or Total number of classes for each subject in 1\textsuperscript{st} Academic yr**

<table>
<thead>
<tr>
<th>Subject</th>
<th>No of Hours of Lectures</th>
<th>No of Hours of Demonstration</th>
<th>Training in Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anatomy</td>
<td>80</td>
<td>20</td>
<td>-------------------</td>
</tr>
<tr>
<td>2. Physiology</td>
<td>80</td>
<td>20</td>
<td>-------------------</td>
</tr>
<tr>
<td>3. Bio-Mechanics &amp; Kinesiology</td>
<td>155</td>
<td>65</td>
<td>150</td>
</tr>
<tr>
<td>Including Fundamental of Exercise Therapy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Physics related to</td>
<td>155</td>
<td>65</td>
<td>110</td>
</tr>
<tr>
<td>Electrotherapy, Actinotherapy, Cryotherapy and Hydrotherapy.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

470 170 260

Total = 470 + 170 + 260 = 900 hours.
According to clause 9 of amendment, total 180 days x 5 Hrs daily = 900 Hrs training period per year that includes Theory, Demonstration and Clinical Training.

**Duration (Hours) or Total number of classes for each subject in 2\textsuperscript{nd} Academic year**

<table>
<thead>
<tr>
<th>Subject</th>
<th>No of Hours of Lectures</th>
<th>No of Hours of Demonstration</th>
<th>Training in Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Therapeutic Exercises, Massage, Movement and Manipulation.</td>
<td>100</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>2. Electrotherapy, Actionotherapy, Cryotherapy &amp; Hydrotherapy</td>
<td>120</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>3. Physiotherapy in Medical Surgical, Orthopedic, Gynecological and other Special conditions.</td>
<td>120</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>4. Concepts of Rehabilitation</td>
<td>30</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>5. Pathology &amp; Microbiology</td>
<td>30</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>6. Psychology</td>
<td>15</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>7. Administration, Budget, Planning &amp; Health Concept</td>
<td>25</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

**Total = 440+230+230=900 hours.**

According to clause 9 of amendment, total 180 days x 5 Hrs daily = 900 Hrs training period per year that includes Theory, Demonstration and Clinical Training.

After successfully passing the final examination of DPT a candidate ought to undergo 3 months internship training in Physiotherapy section of a recognized Hospital.

This training will start only after publication of results.
SYLLABUS

Anatomy: 80 Hrs.
General Anatomy of different regions of body – Cells, Tissues, Organs and system of the body, Correlation of structure and function.

Bones: Classification, Composition, Vascular supply, Function, Ossification and Repair, Muscular and Ligamentous attachments. General features of skull, names and positions of skull bones.

Joints: Classification, Gross structure of each joint, Movements in joint, and their limitations, Synovial Joint in detail including applied anatomy, Arches of foot.

Muscles: Classification, Details of skeletal Muscles, their attachments, Functional Groups, Abdominal Muscles, Pelvic floor Muscles; Facial Muscles & Muscles of Mastication (names and nv. supply only)

CVS: General outline of Heart, Arterial, Venous and Lymphatic system.

CNS: General Anatomy of Brain, Sinuses, Cranial Nerves (Details of 7th Cranial Nerve), Spinal Cord, Chief Tracts (ascending & descending) and Connections, Peripheral Nerves & Nerve Plexuses, Circle of Willie’s.


Abdomen: General Anatomy of Liver, Kidney, Urinary Bladder, Ureter, Parts of Alimentary Canal with relations, Gross Anatomy of Male / Female reproductive organs.

Demonstration: 20 hrs.
Of Viscera & Bones

Physiology: 80 hrs.
Introduction, Cell & its structure, properties and functions including cell division. Various Tissues & their functions.


C.V.S: Muscular structure of Heart, Conducting system, Pulse – (Significance), Cardiac out-put, Heart Rate & its regulation, Blood Pressure & its regulation.


Digestive System:

Genito-Urinary System:
Structure & Functions of Kidney, Process of Urination, Menstrual Cycle. Endocrine system – Position, structure & functions of Pituitary, Thyroid, Adrenals, Ovaries, Testis, Pancreas. (Brief Knowledge)

Defference between Exocrine & Endocrine Glands.

Temperature – Maintenance and Regulation of Body Temperature.

Structure of skin and its function.
Neuro Muscular System:
- Gross structure of Muscle tissues, Muscle contraction – Types, Muscle Tone, Motor Units & its properties, Clonus, Tetany, Fatigue, All or Non Law.

Exercise Physiology:
- Respiratory and Circulatory changes during exercise.

Demonstration:
- 20 Hrs.

- Of recording blood pressure, Heart Sounds, Testing Peripheral Sensation, Superficial & Deep Reflexes, Test for Cerebral & Cerebellar functions.

Physics & Basic Electrotherapy:
- Basic Physics in Medical Electronics:

Bio Mechanics & Kinesiology in Exercise Therapy:

Low Frequency Electrical Currents:
- Definition, Types, Diagramatic representation, Physical properties, Production and Physiological effects. Modification of currents, Surging, Basic principle of TENS & Iontophoresis. Technique of application, apparatus care & maintenance, Indicaions & Contraindications dangers.

Medium Frequency currents:
- Concepts & application of IFT, its Indicaions & Contraindications.

High Frequency Therapeutic Currents:
- Definiton, General Principles, Diagrammatic representation, Physical properties, production and physiological effects, Indications, Contraindication & Danger of -
  - Short- Wave Diathermy,
  - Micro-Wave Diathermy,
  - Ultra-Sound,
  - LASER and their technique of application, apparatus care & maintenance.
Actinotherapy:

Hydrotherapy:

Cryotherapy:
Basic principles of physiological effects, Procedures & Clinical applications, Indication, Contra-indication.

Wax Therapy:
Principles, Constituents, procedures of applications, Indication & Contra-indication

N.B: For Low, Mid, High frequency currents, Hydrotherapy, Cryotherapy & Wax therapy – In 2nd year syllabus will include techniques of application, Indication, Contra-indication and dangers. All others are included in 1st year syllabus.

Exercise Therapy:
Basics of exercise Therapy – 1st year:
Introduction & aims of Exercise Therapy.
Fundamentals of Therapeutic Exercises- Starting Positions, Derived Positions from different starting positions. Muscle work for all the fundamental starting positions. Classification of movements in detail. Active voluntary movements, Passive movements, Free Exercises, Range of Movements in relation to different joints and muscles responsible for those movements (for upper & lower limbs) for spines only movements.
Details of Exercise Therapy, Massage, Movements, Manipulations – for 2nd year.

Pathology & Microbiology:
Concepts of Rehabilitation:
Basic Concept of Rehabilitation (Definition, Term etc), Orthosis, Prosthesis, Low cost aids, Concept of different Bracing, Splints, HKAFO, KAFO, AFO, Therapeutic Shoes, Brief idea about Artificial Limbs, Ambulatory Aids.

Psychology:

Medical, Surgical, Orthopedic, Gynecological and other Specialized Condition.
Medical:
Hemiplegia, Paraplegia, C. P., Parkinson’s disease, Demyelinating Disease, Syringomyelia, Herpes, Myelitis, Ataxia, M.N.D., Poliomyelitis, Peripheral Neuritis, Nerve Injury, Chorea, Vitamin Deficiency Diseases, Nutritional disability, Myocardial Infarction, Valvular Diseases, Peripheral Vascular disease, Bronchitis, Bronchiectasis, Asthma, Tuberculosis, Pneumonia, Lung Abscess, Nephritis, Nephrotic Syndrome, Muscular Dystrophies.

Traumatology & Orthopedics:

General Surgical Conditions:
Pre-Operative and Post-Operative Physiotherapy, Care of Back and Pressure sores.

Gynecological Conditions:
Antenatal & Post-natal Physiotherapeutic Training, Prolapsed Uterus, General Idea about Hysterectomy, Muscular Weakness of Pelvic Floor.

Reconstructive Surgery & Cardio-thoracic Surgery:


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