

**LESSON PLAN**

**Subject** : Physiotherapeutic Skills  
**Class** : BPT III year VI Semester (2018)  
**Class Incharge** : Dr. Divya Gohil (PT)  
**Subject Teacher/s** : Dr. Divya Gohil (PT), Dr.Trupti S.(PT), Dr.Vidhi S.(PT)  
**Total Hours prescribed** : 176 (Theory =-80, Practical-96)

| Sr. no | Topic  | No of hours |          | Mode of teaching  | Name of the Staff | Remarks |
|--------|--|-------------|----------|---|-------------------|---------|
| 1      | General principles of Human development & maturation | T           | <b>P</b> | Lecture, PowerPoint presentation, Question and Answer Sessions, Demonstrations<br><br>Lecture, Group discussion, Demonstrations |                   |         |
|        | Aspects:   |             |          |   |                   |         |
|        | • Physical   | 1           |          |   |                   |         |
|        | • Motor  | 1           |          |   |                   |         |
|        | • Sensory  | 1           |          |   |                   |         |
|        | • Cognitive  | 1           |          |   |                   |         |
|        | • Emotional  | 1           |          |   |                   |         |
|        | • Cultural   | 1           |          |   |                   |         |
|        | • Social   | 1           |          |   |                   |         |
|        | Factors influencing human development & growth       | 1           |          |   |                   |         |
|        | • Biological   | 1           |          |   |                   |         |
|        | • Environmental                                      | 1           |          |   |                   |         |
|        | • Inherited  | 1           |          |   |                   |         |
|        | Principle of Maturation                              | 1           |          |   |                   |         |
|        | • General  | 1           |          |   |                   |         |
|        | • Anatomical direction:                              | 2           |          |   |                   |         |
|        | Cephalo- caudal                                      |             |          |   |                   |         |
|        | Proximo- distal                                      |             |          |   |                   |         |
|        | Centro- lateral                                      |             |          |   |                   |         |
|        | Mass to specific pattern                             | 4           |          |   |                   |         |
|        | Gross to fine motor development                      |             |          |   |                   |         |
|        | Reflex maturation test                               | 1           |          |   |                   |         |
|        | • Oromotor development                               | 1           |          |   |                   |         |
|        | • Sensory development                                | 1           |          |   |                   |         |
|        | • Neurodevelopment of hand function                  | 1           |          |   |                   |         |

|                                       |  |   |   |                                  |   |   |  |  |
|---------------------------------------|--|---|---|----------------------------------|---|---|--|--|
| 2                                     | Electro diagnosis  |   |   |                                  |   |   |  |  |
|                                       | • Physiology of resting membrane potential & action potential, Propagation of action, potential, volume conduction | 1   |   | Lecture, PowerPoint presentation |   |   |  |  |
|                                       | • Physiology of muscle contraction   | 1   |   |                                  |   |   |  |  |
|                                       | • Motor unit & recruitment pattern of motor unit- size principle   | 1   |   |                                  |   |   |  |  |
|                                       | Electroneuromyography  |   |   |                                  |   |   |  |  |
|                                       | Electromyography   | 1   |   |                                  |   |   |  |  |
|                                       | • Principles   | 1   | 4 |                                  |   |   |  |  |
|                                       | • Instrumentation  | 2   |   |                                  |   |   |  |  |
|                                       | • Normal & abnormal EMG pattern  | 2   |   |                                  |   |   |  |  |
|                                       | • Nerve conduction studies- Principles & technique   | 2   |   |                                  |   |   |  |  |
|                                       | 3  | Basics in Manual therapy & applications with clinical reasoning |   |                                  |   | Lecture, PowerPoint presentation, Practical sessions, Assignments, Problem Solving Skills |  |  |
|                                       |  | • Maitland - Principles   | 2 |                                  |   |   |  |  |
|                                       |  | Indications & Contraindication                                  | 1 |                                  | 9 |   |  |  |
| Technique on extremities on models    |  | 2   |   |                                  |   |   |  |  |
| • Kaltenborn                          |  | 1   | 2 |                                  |   |   |  |  |
| • Mulligan- Principles                |  | 1   |   |                                  |   |   |  |  |
| Indications & Contraindication        |  | 1   | 7 |                                  |   |   |  |  |
| Technique on extremities on models    |  | 2   |   |                                  |   |   |  |  |
| • Mckenzie- Lumbar                    |  | 2   |   |                                  |   |   |  |  |
| Cervical                              |  | 2   | 5 |                                  |   |   |  |  |
| • Butler- Principles                  |  | 1   |   |                                  |   |   |  |  |
| Indications & Contraindication        |  | 1   | 4 |                                  |   |   |  |  |
| Technique                             | 2  |   |   |                                  |   |   |  |  |
| • Muscle energy technique- Principles | 1  | 4   |   |                                  |   |   |  |  |
| Indications & Contraindication        |  |   |   |                                  |   |   |  |  |
| Technique                             | 1  |   |   |                                  |   |   |  |  |
| Myofascial stretching-Principles      |  | 4   |   |                                  |   |   |  |  |
| Indications & Contraindication        | 1  |   |   |                                  |   |   |  |  |
| Technique • Cyriax- pain- original    | 2  |   |   |                                  |   |   |  |  |
| and Referred Principles               | 1  |   |   |                                  |   |   |  |  |
| Indications & Contraindication        | 1  |   |   |                                  |   |   |  |  |
| Technique on extremities on models    | 2  |   |   |                                  |   |   |  |  |

|   |   |  |                              |  |  |  |
|---|---|--|------------------------------|--|--|--|
| 4 | <p>Basics in Neuro Therapeutic skills &amp; Applications with clinical reasoning:</p> <ul style="list-style-type: none"> <li>• Neuro developmental technique:</li> </ul> <p>Principle &amp; indications<br/>Application of technique on models</p> <ul style="list-style-type: none"> <li>• Rood's approach:</li> </ul> <p>Principle &amp; indications<br/>Application of technique on models</p> <ul style="list-style-type: none"> <li>• PNF:</li> </ul> <p>Principle &amp; indications<br/>Application of technique on models</p> <ul style="list-style-type: none"> <li>• Brunnstrom approach:</li> </ul> <p>Principle &amp; indications<br/>Application of technique on models</p> <ul style="list-style-type: none"> <li>• Vojta</li> <li>• Si</li> <li>• MRP</li> <li>• CIMT</li> <li>• TOA</li> </ul> | 1<br>2<br><br>1<br>2<br><br>1<br>2<br><br>2<br>2<br>2<br>1 | 5<br><br>5<br><br>5<br><br>5 | <p>Lecture,<br/>PowerPoint presentation,<br/>Practical sessions,<br/>Assignments,<br/>Problem Solving Skills</p> |  |  |
| 5 | F wave & H reflex   | 3  | 3                            | Lecture,<br>PowerPoint presentation  |  |  |
| 6 | Demonstration of EMG & NCV technique  | 1  |                              | Lecture,<br>PowerPoint presentation,<br>Demonstration  |  |  |
| 7 | <p>Exercise tolerance testing-</p> <ul style="list-style-type: none"> <li>• 6 minutes walk test on models</li> <li>• Bruce protocol on models</li> </ul>  |  | 5<br>4                       | <p>Group discussions,<br/>Practical sessions,<br/>Assignments,<br/>Problem Solving Skills</p>                    |  |  |