

## ABOUT THE COURSE

Vocational higher secondary education is a project of central government to address the issues of unemployment. In vocational higher secondary students are guided to different work stream after their secondary education. Among the different vocational courses introduced, physiotherapy has great relevance.

In history it has its roots in the after effects of second world war-in the rehabilitation after injuries .It gradually developed in to a separate branch of medicine. In the past, medical and surgical care was directed only towards the treatment of diseases. Now it is well recognized that attention needs to be paid also towards the after effects of diseases. It is widely accepted that by using physiotherapy treatment techniques and facilities recovery of a patient can be accelerated and the period of convalescence can be reduced and in certain cases permanent disability resulting from disease can be prevented or minimized. "A Physician add life to years and a Physiotherapist add years to life"

This new concept has been the key factor to the development of a new branch of medicine i.e. rehabilitation medicine. Today physiotherapy has emerged as a popular branch of Allied Health science. Its progress and rapid expansion had made it a chief component of Rehabilitation medicine. It has also a major role in sports medicine and physical fitness.

Vocational higher secondary course in Physiotherapy will enable the students to acquire various skills needed to assist a Physiotherapist in the different specialties. It also offers an opportunity for higher studies in various medical, paramedical and allied health science courses.

### Job roles

<b>Govt/semi govt sector</b>	<b>Private sector</b>	<b>Self employment</b>
1. Lab Technical Assistant 2. Hospital Assistant	1. Physiotherapist's assistant 2. Rehabilitation assistant 3. Gymnasium instructor 4. Fitness trainer 5. Community health worker 6. Assistant in special school 7. Assistant in Geriatric care center 8. Assistant in physiotherapy clinic 9. Health educator	1. Gymnasium instructor 2. Fitness trainer 3. Entrepreneur in fitness center 4. Entrepreneur in wellness center 5. Production of exercise therapy appliances.

## SUBJECT APPROACH

Physiotherapy is a branch of modern medicine. Its primary purpose is promotion of optimal human health, function and improving quality of life through the application of scientific principles to identify, assess, prevent, correct and alleviate acute or prolonged movement dysfunctions and impairments. Physiotherapy services are provided by the direction and supervision of a qualified physiotherapist.

### General aims of physiotherapy are

1. Improve and or maintain functional abilities
2. Relieving and reducing pain.
3. Maintaining or improving mobility.
4. Maintaining and increasing strength and endurance of muscles.
5. Re-educating muscles for correcting posture and carrying out effective movements of the body and its parts.
6. Preventing contracture and deformity
7. Maintaining and improving vital capacity of the individual and thus improving ventilation.
8. Facilitating of healing of wounds and ulcers and certain skin conditions.
9. Improving the sports performance and care of athlete from injuries
10. Improving general physical fitness

## LEARNING OUTCOMES OF THE FIRST AND SECOND MODULE

### MODULE 1-

### Basics of Human Anatomy and Physiology

#### UNIT 1.1 INTRODUCTION TO ANATOMY AND PHYSIOLOGY

##### Leaner will be able to

- 1.1.1 Define Anatomy and Physiology
- 1.1.2 Define Anatomical Position
- 1.1.3 Locate Regions and cavities of human body
- 1.1.2 Define Relationship of parts of the body
  - Proximal And Distal,

- Superficial And Deep,
  - Ipsilateral And Contra Lateral.
- 1.1.4 Differentiate Directional terms-

- Superior
- Inferior
- Anterior
- Posterior
- Medial
- Lateral

## **UNIT 1.2 OSTEOLOGY**

1.2.1 Define skeleton and explain the functions of skeleton

1.2.2 Classify of skeletal system-

- Axial.
- Appendicular

1.2.3 Classify of bones

- Short bones
- Long bones
- Flat bones

1.2.4 Identify and describe the upper and lower limb bones

1.2.5 Define joints and classify the joints

- Structural -cartilaginous, fibrous and synovial with examples
- functional -movable, Immovable and partially movable with examples

## **UNIT 1.3 MYOLOGY**

1.3.1 Name the Muscles of upper extremity, lower extremity and trunk

1.3.2 Identify the Nerve supply and Actions of upper, lower and trunk muscles

## **UNIT 1.4 BLOOD AND CARDIO VASCULAR SYSTEM**

1.4.1 Name the Components and list out the functions of blood

1.4.2 Draw and label the Structure of Heart

1.4.3 Describe Systemic and pulmonary circulation

1.4.4 Define Cardiac cycle

1.4.5 Define and Detect Pulse and Blood Pressure

1.4.6 Explain Effects of exercise on cardiovascular system

## **UNIT 1.5 RESPIRATORY SYSTEM**

1.5.1 Name the parts of Upper and lower respiratory tract.

1.5.2 Draw the Structure and list out the functions of Lungs

1.5.3 Define Inspiration and Expiration

1.5.3 Describe Lung volumes and capacities .

- Tidal volume
- Inspiratory reserve volume
- Expiratory reserve volume
- Vital capacity
- Inspiratory capacity
- Expiratory capacity
- VO<sub>2</sub> max

1.5.4 Explain the Effects of exercise on respiratory system

## **UNIT 1.6 NERVOUS SYSTEM**

1.6.1 Classify Nervous System

- Central nervous system
- Peripheral nervous system

1.6.2 Draw the Structure and list out the functions of Brain and Spinal cord

1.6.3 List out Cranial nerves and spinal nerves

1.6.4 Define Reflex action

1.6.5 Describe Motor and sensory pathway

1.6.6 Differentiate LMN and UMN lesion

## **UNIT 1.7 BASIC PATHOLOGY**

1.6.1 Define pathology

1.6.2 Describe Normal cell and cellular adaptations

1.6.3 Define Cell injury

1.6.4 Differentiate Acute and Chronic inflammation

1.6.5 Define and classify diseases

1.6.6 Differentiate the types of Immunity

1.6.7 Define Basic pathological terms

- Necrosis
- Gangrene
- Thrombosis

- Embolism
- Anemia
- Shock
- Hemorrhage

## **COURSE STRUCTURE**

**This course will consists of 4 modules**

MODULE 1	BASICS OF HUMAN ANATOMY AND PHYSIOLOGY
MODULE 2	BASICS OF SPORTS AND PHYSICAL FITNESS
MODULE 3	FUNDAMENTALS OF PHYSIOTHERAPEUTICS
MODULE 4	APPLICATIONS OF PHYSIOTHERAPY IN VARIOUS CONDITIONS

## **CLASS ROOM ACTIVITIES**

- Brain storming
- Inter active discussion
- Lectures
- Assignment
- Seminar
- Group discussion
- Practical experiment
- Debate
- Video show
- Models
- Field visit.
- Exhibition,
- Vocational Survey
- Capacity building (OJT, PCT)
- Quiz
- Activity log
- Referral books

## **PRACTICAL ACTIVITIES**

- Demonstration
- Practical experiment
- Field visit
- Health awareness programme

- Project preparation
- Survey
- Activity log

## ON THE JOB TRAINING

OJT is an essential part of vocational education to impart technical skills in specific areas. To fulfill the learning outcomes the students must be exposed to on the job training.

### **OJT helps the students**

- To develop vocational skill
- To develop personal qualities.
- To develop values, attitudes and interests.
- Helps to apply their knowledge in real situations
- Helps to develop a professional attitude

The OJT can be given at the end of the second and fourth module for TWO WEEKS each. It can be decided according to the facility and convenience of the school and OJT centers. The OJT centers can be

- Recognized physiotherapy centers
- Recognized fitness center
- Gymnasium
- Physiotherapy clinic

## CERTIFICATION OF SKILLS

**Certificate in Sports and Physical Fitness** after completion of first and second module.

**Certificate of Physiotherapist's Assistant** after the completion of 3rd & 4th module

### Overview of the Module 1

Before learning Physiotherapy Techniques it is essential to understand the basic structure and functions of the various systems of the human body. The first module introduces the anatomical terms, anatomy and physiology of respiratory system, blood and cardiovascular system, nervous system and detailed study of skeletal system and muscular system. Also introduces basic terms and knowledge about Basic pathology . After completing this module the learner will acquire the skill of Blood Pressure measurement, TPR and basic knowledge about the various systems of the body. By considering the importance of the chapter, necessary learning activities should be planned and introduced so as to reinforce the ideas and develop skills

## List of Expected skills

### The learner will be able to

- Identify ,compare, classify the different bones of human skeleton
- Name and identify the actions of major muscles of the body
- Identify the structure and functions of respiratory system
- Identify the structure and functions of Circulatory system
- Identify the structure and functions of Nervous system
- Do the measurement of vital sings
- Do BMI measurement

<b>Unit No</b>	<b>Name of units</b>	<b>Periods</b>
1.1	Introduction to Anatomy and Physiology	50
1.2	Osteology	100
1.3	Myology	50
1.4	Blood and cardio vascular system	40
1.5	Respiratory System	30
1.6	Nervous System	40
1.7	Basic Pathology	30
	<b>Total Periods</b>	<b>340</b>

**MODULE 1**

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment	Total Hours
<ul style="list-style-type: none"> <li>• Introduction to Anatomy and physiology</li> </ul>	<p>1.1.1. Definition of Anatomy and Physiology</p> <p>1.1.2 . Regions and cavities of the Human body</p> <p>1.1.3 Anatomical Position, relationship of parts of the body - proximal and distal, superficial and deep, ipsilateral and contra lateral.</p> <p>1.1.4 Directional terms-Superior, inferior, anterior ,posterior, medial and lateral</p> <p>1.1.5 Common terms used in Anatomy</p>	<ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Discussion</li> <li>• Diagram drawing</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Questioning</li> <li>• Record</li> <li>• Punctuality</li> <li>• Regularity</li> </ul>	50
<ul style="list-style-type: none"> <li>• Osteology</li> </ul>	<p>1.2.1 Identification and description of skeletal system</p> <p>1.2.2 Bones- Types of bones, Function of skeletal system</p> <p>1.2.3 Classification of Joints</p>	<ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Discussion</li> <li>• Diagram drawing</li> <li>• Record</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Questioning</li> <li>• Record</li> <li>• Punctuality</li> <li>• Regularity</li> </ul>	100
<ul style="list-style-type: none"> <li>• Myology</li> </ul>	<p>1.3.1 Muscles of upper extremity, lower extremity and trunk</p> <p>1.3.2 Nerve supply and Actions of major muscles</p>	<ul style="list-style-type: none"> <li>• Demonstration</li> <li>• Discussion</li> <li>• Diagram drawing</li> <li>• Record</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Questioning</li> <li>• Record</li> <li>• Punctuality</li> <li>• Regularity</li> </ul>	



**MODULE 1**

<b>Ideas/Concepts/Skill</b>	<b>Learning Outcomes</b>	<b>Suggested Activities</b>	<b>Assessment</b>	<b>Total Hours</b>
<ul style="list-style-type: none"> <li>• Cardio-vascular system</li> </ul>	1.4.1 Heart and circulation 1.4.2 cardiac cycle 1.4.3 B.P. 1.4.4 Pulse 1.4.5 Effects of exercise in cardiovascular system 1.4.6 Anatomy of Upper and lower respiratory tract. 1.5.2 Lungs 1.5.3 Mechanism of breathing and Lung volumes and capacities. 1.5.4 Effects of exercise on respiratory system	<ul style="list-style-type: none"> <li>• Specimen demonstration</li> <li>• Discussion</li> <li>• Diagram drawing</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Viva</li> <li>• Assignment</li> </ul>	
<ul style="list-style-type: none"> <li>• Respiratory System</li> </ul>	1.5.1 Anatomy of Upper and lower respiratory tract. 1.5.2 Lungs 1.5.3 Mechanism of breathing and Lung volumes and capacities. 1.5.4 Effects of exercise on respiratory system	<ul style="list-style-type: none"> <li>• Specimen demonstration</li> <li>• Discussion</li> <li>• Diagram drawing</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Viva</li> <li>• Assignment</li> </ul>	
<ul style="list-style-type: none"> <li>• Basic Pathology</li> </ul>	1.6.1 Definition and Branches 1.6.2 Normal cell and cellular adaptations 1.6.3 Cell injury 1.6.4 Acute and Chronic inflammation 1.6.5 Diseases-Definition and classification 1.6.6 Different types of Immunity 1.7.1 Necrosis 1.7.2 Gangrene 1.7.3 Thrombosis 1.7.4 Embolism 1.7.5 Anaemia 1.7.6 Shock 1.7.7 Hemorrhage	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Diagram drawing</li> <li>• Chart preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Viva</li> <li>• Assignment</li> </ul>	
Introduction of Pathological terms  Total hours		<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Diagram drawing</li> <li>• Chart preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Viva</li> <li>• Assignment</li> </ul>	

# PRACTICAL ACTIVITIES OF MODULE 1

## MODULE 1

### UNIT 1.1 INTRODUCTION TO ANATOMY AND PHYSIOLOGY

1. Demonstration of Anatomical position
2. Demonstration of parts of the body
3. Identification of directional terms.

### UNIT 1.2 OSTEOLOGY

1. Identification of bone-Axial and Appendicular
2. Identify, briefly describe, draw and label the bones of upper and lower limb.

### UNIT 1.3 MYOLOGY

1. Draw and label the diagram of muscular system

### UNIT 1.4 BLOOD AND CARDIO VASCULAR SYSTEM

1. Draw and label the diagram of Heart and major vessels
2. Determination of Pulse
3. Determination of blood pressure
4. Measurement of temperature

### UNIT 1.5 RESPIRATORY SYSTEM

1. Respiratory rate
2. Use of spiro meter

### UNIT 1.6 NERVOUS SYSTEM

1. Demonstration of brain
2. Demonstration of spinal cord
3. Reflex action

## OVERVIEW OF THE MODULE 2

After the completion of the module II, the student will acquire the skill of on field and off field assistance of a sports physiotherapist and a fitness expert in assessing, recording and delivering the procedures as well as cleaning, handling and maintenance of equipment's. The practical classes' aims to impart knowledge oriented towards skill acquisition on following areas. On completion of module II the student will be able to demonstrate and assist the sports physiotherapist in all related activities.

### List of Expected skills

#### The learner will be able to

- Understand the concepts of health, sports and physical fitness
- understand the concept of fitness training and sport specific fitness
- understand the sports medicine model
- understand the concept of optimal nutrition
- Demonstrate preliminary sports and fitness screening
- Demonstrate aerobic and anaerobic exercises
- Demonstrate self stretches
- Demonstrate first aid and supportive services
- Demonstrate personal hygiene procedures

Unit No	Name of units	Periods
2.1	Concept of sports and physical fitness	25
2.2	Definition of health	10
2.3	Fitness training	40
2.4	Sports specific strengthening	60
2.5	Muscle flexibility	60
2.6	Communication and vocabulary	20
2.7	Classification of BMI	20
2.8	Sports medicine model	25
2.9	First aid services	30
2.10	Supportive services	25
2.11	Understanding ,identification anutrition and awareness of	25
	<b>Total periods</b>	<b>340</b>

**MODULE 1**

<b>Ideas/Concepts/Skill</b>	<b>Learning Outcomes</b>	<b>Suggested Activities</b>	<b>Assessment</b>	<b>Total Hours</b>
2.1.1 Concept of sports and physical fitness	<ul style="list-style-type: none"> <li>Physical fitness and function</li> <li>Definition of sports fitness</li> <li>Prevention sports injuries</li> <li>Knowledge of optimal health</li> <li>WHO definition</li> <li>Homeostasis</li> </ul>	<ul style="list-style-type: none"> <li>Visual media</li> <li>Interactive sessions</li> </ul>	<ul style="list-style-type: none"> <li>Questioner</li> <li>Assignment</li> </ul>	
2.1.2 Definition of health	<ul style="list-style-type: none"> <li>Prevention sports injuries</li> <li>Knowledge of optimal health</li> <li>WHO definition</li> <li>Homeostasis</li> </ul>	<ul style="list-style-type: none"> <li>Visual media</li> <li>Gym activities</li> <li>Field activities</li> </ul>	<ul style="list-style-type: none"> <li>Group discussion</li> <li>Class test</li> <li>Demonstration</li> </ul>	
2.2.1 Fitness training	<ul style="list-style-type: none"> <li>Anaerobic Fitness training</li> <li>Weight lifting</li> <li>Aerobic Fitness training</li> <li>marathon</li> <li>Sprinting</li> <li>Marathon</li> <li>Short put</li> <li>Hurdles</li> <li>Volleyball</li> <li>Tennis</li> </ul>	<ul style="list-style-type: none"> <li>Visual media</li> <li>Gym activities</li> <li>Field visit</li> </ul>		
2.2.2 Sports specific strengthening	<ul style="list-style-type: none"> <li>marathon</li> <li>Sprinting</li> <li>Marathon</li> <li>Short put</li> <li>Hurdles</li> <li>Volleyball</li> <li>Tennis</li> </ul>			
2.2.3 Identification of muscle flexibility	<ul style="list-style-type: none"> <li>Flexibility of muscle</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration</li> <li>Visual media</li> <li>Record</li> <li>Chart preparation</li> </ul>	<ul style="list-style-type: none"> <li>Class test</li> <li>Viva</li> <li>demonstration</li> </ul>	
2.2.4 Communication and vocabulary	<ul style="list-style-type: none"> <li>Sports related Terminology</li> </ul>	<ul style="list-style-type: none"> <li>Brain storming discussion</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration</li> <li>Class test</li> <li>Viva</li> </ul>	

**MODULE 1**

Ideas/Concepts/Skill	Learning Outcomes	Suggested Activities	Assessment	Total Hours
2.3.1 Classification of BMI	<ul style="list-style-type: none"> <li>• Definition of BMI</li> <li>• Identification of Obesity And malnutrition</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection assignment</li> </ul>	<ul style="list-style-type: none"> <li>• Class room monitoring</li> <li>• Class test</li> </ul>	
2.4.1 Sports medicine model	<ul style="list-style-type: none"> <li>• Understanding the job role</li> </ul>	<ul style="list-style-type: none"> <li>• Field visit</li> <li>• Visual media</li> </ul>	<ul style="list-style-type: none"> <li>• Viva</li> <li>• Practical evaluation</li> </ul>	
2.5.1 First aid services	First Aid for Basic life support	<ul style="list-style-type: none"> <li>• Visual media</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Practical evaluation</li> </ul>	
2.5.2 Supportive services	<b>PRICER</b> <ul style="list-style-type: none"> <li>• Sprain and strain</li> <li>• Contusion</li> <li>• Bruises</li> <li>• Fracture</li> <li>• Business practices</li> <li>• Professional boundaries</li> </ul>	<ul style="list-style-type: none"> <li>• Visual media</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Practical evaluation</li> </ul>	
2.6.1 Ethics in sports and physical fitness	<ul style="list-style-type: none"> <li>• Abuse of substance</li> <li>• Client confidentiality</li> <li>• Conflicts of interest</li> <li>• Professional certifications</li> <li>• Professional representation of skills ,abilities and knowledge</li> <li>• Intellectual property</li> <li>• Medical advice</li> </ul>	Interactive discussion <ul style="list-style-type: none"> <li>• Assignment</li> <li>• Visual media</li> <li>• Data collection</li> <li>• Chart preparation</li> <li>• Lecturing</li> <li>• Chart preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Role play</li> </ul>	
2.7.1 U n d e r s t a n d i n g , identification and awareness of nutrition	<ul style="list-style-type: none"> <li>• Importance of Nutrition</li> <li>• Sports related nutrition</li> <li>• Balanced diet and supplements</li> <li>• Sports and personal hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection</li> <li>• Chart preparation</li> <li>• Seminar</li> <li>• Data collection</li> <li>• Chart preparation</li> <li>• Seminar</li> </ul>	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Questioner</li> <li>• Viva</li> </ul>	

## PRACTICAL ACTIVITIES OF MODULE 2

### I. Preliminary sports and fitness screening

- Height
- Weight
- Resting heart rate
- Respiratory rate
- Target heart rate calculation (Karvonen Formula)
- Rate of Perceived Exertion (RPE)
- BMI
- Repetition Maximum (RM)

### II. Warm up Exercises

#### Walking

- Jogging
- Running
- Cycling

### III. Mobility Exercises

- Neck rolls
- Shoulder rolls
- Side bends
- Trunk rotations
- Hip rolls
- Knee rolls
- Ankle rolls

### IV. Aerobic Exercise

- Treadmill training
- Cycling
- Elliptical training

### V. Anaerobic Exercises

- Application of DeLorme Regimen  
Demonstration of the Regimen
- Weight training

#### 1. Chest

- Machine seated Chest press
- Bench press

- Cable Flyes
- Dumbbell Pull-overs

## 2. Back

- Chin ups
- Lats Pull Down
- Dumbbell Rows

## 3. Legs

- Squats
- Leg press
- Lunges
- Standing Calf Rises

## 4. Arms

- Biceps  
Standing Barbell Curls  
Preacher Curls  
Dumbbell Curls
- Triceps  
French curls  
Dumbbell Kicks

## 5. Abdominals

- Abdominal curls
- Bend knee leg rise
- Oblique Crunches

## VI. Cool down Exercises

### Self-Stretching of

- Pectorals
- Trapezius
- Deltoid
- Triceps
- Gluteus
- Hip adductors
- Hamstrings
- Quadriceps
- Calf muscle

## VII. Event Specific Training

- Sprinting
- Marathon
- Short put
- Volleyball
- Tennis

## VIII. Sports Physiotherapy

### **Application of**

- Ice
- Moist heat
- Contrast bath
- Wax bath

## IX. First aid

- Airway
- Breathing
- Circulation
- CPR

## X. Supportive Services

### **PRICER**

### **Application of**

- Slings\ Splints
- Icing
- Crepe Bandage
- Positioning

## XI. Personal Hygiene

Hand washing

Oral, hair, skin and nail care



## DETAILED UNIT ANALYSIS OF UNIT- 1

Introduction to Anatomy and Physiology

**Content** 1-1-1 Definition of Anatomy and Physiology

**Concept** : Anatomical terms and positions

**Activity suggested**

### 1. Demonstration of anatomical position

The mentor first demonstrates the anatomical position of the body by positioning one of the learners as model. Then introduce the anatomical position points to be introduced.

- Standing erect
- Eyes looking forward
- Upper extremities at the side of body, palms turned forward.

### 2. Demonstration of charts to introduce anatomical terms

**Terms to be introduced**

- **Anterior / Ventral**
  - Towards the front of the body
- **Posterior / Dorsal**
  - Towards the back of the body
- **Medial**
  - Towards the midline
- **Lateral**
  - Away from the midline
- **Superior**
  - A Part above another
- **Inferior**
  - A Part below another
- **Proximal**
  - Nearest to the point of attachment to the body
- **Distal**
  - Away from the point of attachment to the body
- **Central**
  - Situated at or related to a center
- **Peripheral**
  - Towards the surface of the body

- Supine
  - Position of the body lying with back on the table [face UP]
- Prone
  - Position of the body lying flat with chest down and back UP

### Assigned activity

- Prepared notes in the activity log
- Identification of anatomical position and relation of various organs using charts and models.
- Visiting anatomy museums and medical exhibitions
- Preparation of charts

### Repository of CE activities

#### a. Process Assessment

Participation in discussion, seminars and class room activities has to be evaluated by fixing indicators for each learning process. The indicators like participation, conceptual understanding attainment of skill, performance / presentation. For self assessment appropriate tools may be adopted.

#### b. Portfolio Assessment

- Report of group discussion
- Prepared charts photography and other data

### Unit Assessment

- Unit Test
- Quiz Programme
- Oral Test
- Preparation of question and writing answers

### Sample Questions

#### 1. Differentiate the following anatomical terms

- |               |               |
|---------------|---------------|
| a. Anterior   | b. Posterior  |
| c. Medial.    | d. Lateral    |
| b. e. Central | f. Peripheral |

#### 2. MCQ

- a. Anatomy is the term which means study of
  - i. Physiology
  - ii. Morphology
  - iii. Cell function
  - iv. Human functions

- b. Study dealing with the explanations of how all organ works would be an example of
  - i. Anatomy
  - ii. Cytology

## LIST OF TOOLS EQUIPMENT AND MATERIALS

### Module 1 & 2

#### List of tools equipments and materials

- Multi gym
- Dumb bells
- Barbells
- Free weights
- Cables
- Tubing's
- Weight cuffs
- Static cycle
- Treadmill
- Elliptical trainer
- Ice packs
- Wax bath
- Hydro collator packs
- First aid box
- Slings\ Splints
- Crepe bandage

#### List of books and instructional material

- Fundamentals of Anatomy- S. Sreedevi
- Text book of Osteology- I B Singh
- Textbook of physiology- Sembulingum
- Anatomy and physiology for Nursing students- Evely Pearce
- Clinical sports medicine - Peter Brukner and Karim Khan
- Sports Medicine- C. S Jayprakash