



**St. Andrews Education Foundation's**

*(An ISO 9001:2015 Certified Minority Institution)*

**St. Andrews College of Physiotherapy**

**(Christian Minority Institution)**

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## Course Outcomes-1<sup>st</sup> B.P.Th

### PROFESSIONAL PRACTICE AND ETHICS

At the end of the course, the candidate will:

- a) Be able to understand the moral values and meaning of ethics.
- b) Acquire bedside manners and communication skills in relation with patients, peers, seniors and other professionals.
- c) Develop psychomotor skills for physiotherapist-patient relationship.

### HUMAN ANATOMY

At the end of the course, the candidate will be able to:

- a) Identify & describe Anatomical aspects of muscles, bones, joints, their attachments & to understand and analyze movements. ii. Application of knowledge of anatomy on the living (living anatomy).
- b) Understand the Anatomical basis of various clinical conditions.
- c) Identify & describe various parts of nervous system.
- d) Describe blood circulation of C.N.S. & spinal cord.
- e) Identify the Structures of various C.N.S Transsections.
- f) Identify and describe the course of peripheral nerves.
- g) Understand anatomical basis of clinical conditions of nervous system.
- h) To identify & describe various structures of the Cardio Vascular &Respiratory system and the course of blood vessels
- i) Identify and describe various structures of Thoracic cage and mechanisms of Respiration
- j) Apply knowledge of Living anatomy with respect to Cardio Vascular &Respiratory system.
- k) Understand anatomical basis of clinical conditions of cardiovascular &Respiratory system
- l) Obtain Knowledge of OTHER SYSTEMS & SENSORY ORGANS

## HUMAN PHYSIOLOGY

At the end of the course, the candidate will:

- a) Acquire the knowledge of the relative contribution of each organ system in maintenance of the Milieu Interior (Homeostasis)
- b) Be able to describe physiological functions of various systems, with special reference to Musculo-skeletal, Neuro-motor, Cardio-respiratory, Endocrine, Uro-genital function, & alterations in function with aging
- c) Analyze physiological response & adaptation to environmental stresses-with special emphasis on physical activity, altitude, temperature
- d) Acquire the skill of basic clinical examination, with special emphasis to Peripheral & Central Nervous system, Cardiovascular & Respiratory system, & Exercise tolerance / Ergography

## BIOCHEMISTRY

At the end of the course, the candidate will be able to:

- a) Identify various biomolecules which are present in the body and functions
- b) Understand The formation and fate of these biomolecules
- c) Identify their normal levels in body fluids required for functioning and their abnormal levels to understand the disease process.

## FUNDAMENTALS OF KINESIOLOGY & KINESIOTHERAPY

### **OBJECTIVE:**

At the end of the course, the candidate will be able to:

- a) Define the various terms used in relation to Mechanics, Biomechanics & Kinesiology
- b) Recall the basic principles of Biophysics related to mechanics of movement / motion & understand the application of these principles to the simple equipment designs along with their efficacy in Therapeutic Gymnasium & various starting positions used in therapeutics.
- c) Describe & also acquire the skills of use of various tools of the Therapeutic Gymnasium
- d) Demonstrate the movements in terms of various anatomical planes and axes.
- e) Demonstrate various starting & derived positions used in therapeutics.

- f) Describe physiological principles & acquire the skills of application of therapeutic massage
- g) Acquire the skills of assessment of basic evaluation like sensations, reflexes & vital parameters
- h) Acquire the skill of objective assessment of Range of Motion of the joints by Goniometry
- i) Describe physiological basis and principle of relaxation and acquire the skills of relaxation methods
- j) Describe physiological responses and principles of aerobic exercises for general fitness & demonstrate fitness skills on self & group.
- k) Describe physiological principles and acquire the skill of performing Pranayama & Yogasanas

### **FUNDAMENTALS OF ELECTROTHERAPY**

At the end of the course, the candidate will be able to:

- a) Recall the physics principles & Laws of Electricity, Electromagnetic spectrum, & ultra sound
  - b) Describe effects of environmental & man made electromagnetic field at the cellular level & risk factors on prolonged exposure.
  - c) Describe the Main electrical supply, Electric shock, precautions
  - d) Enumerate Types & Production of various Therapeutic electrical currents & describe the panel diagrams of the machines
  - e) Test the working of the various electrotherapeutic-equipments
  - f) Describe in brief, certain common electrical components such as transistors, valves, capacitors, transformers etc & the simple instruments used to test / calibrate these components [ such as potentiometer, oscilloscope , multimeter ] of the circuit ; & will be able to identify such components.
  - g) Describe & identify various types of electrodes used in therapeutics, describe electrical skin resistance & significance of various media used to reduce skin resistance.
  - h) Acquire knowledge of various superficial thermal agents such as Paraffin wax bath, Cryotherapy, Hydrocollator packs, Home remedies, their physiological & therapeutic effects, Merits / demerits & acquire the skill of application.
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