St Soldier College(Co-education)

Program

and

Course Outcomes

Department of BPT

BPT

PROGRAM OUTCOME

The aim of the course is to provide comprehensive, effective and individually focused training that prepares the students for providing quality physiotherapy care to the patients. At the end of the course students will be able to perform the following:

1. Comprehend, integrate and analyse complex information from program content and apply it on the patients.
2. Properly document a safe, systematic and appropriate physiotherapy assessment for various conditions and affectively develop an appropriate treatment protocol.
3. Identify and address the psychosocial impact of disability and dysfunction and plan care accordingly.
4. Demonstrate the ability to effectively manage stressful situations during long working hours through logical, analytical and critical thinking.
5. Practice and delegate responsibilities in a safe, ethical and legal manner following all the guidelines.
6. Ability to acquire knowledge on the basis of basic medical sciences, ergonomics, various medical conditions and surgical treatments to identify psychological, social, economic and cultural aspects of diseases and its impact on community.
7. Work effectively as a part of interdisciplinary team.
8. Set appropriate short and long term goals on the basis of interpretation of physical assessment and diagnosis.
9. Students will gain an ability to work independently or collaboratively as a part of rehabilitation team.
10. Gain ability to understand and conduct research activities.
11. Develop effective communication skills.
12. Promote health education and improve quality of life through the practice of profession.
13. Carry out research and publication towards upliftment of the field of physiotherapy.
14. Work efficiently and effectively in various interprofessional collaborative settings like hospitals, rehabilitation centers, special schools, educational institutions, health and fitness centers, geriatric centers, ergonomic consultant in corporate sectors, private consultations, home care services, industrial sectors, sports management and fitness consultant.

COURSE OUTCOME

BPT 1ST YEAR

HUMAN ANATOMY

At the end of the course students will be able to:

1. Identify surface landmarks, muscles, bones and joints of human body.
2. Demonstrate anatomy of nervous ,respiratory ,digestive ,endocrine, urinary and genital system

HUMAN PHYSIOLOGY

At the end of the course students will be able to:

1. Demonstrate physiology of cell, circulatory system, cardiovascular system, nervous system, respiratory system, digestive system, endocrinology and renal physiology.
2. Demonstrate various physiological tests for clinical examination.
3. Understand how abnormal physiology affects functioning of body.

BIOCHEMISTRY

At the end of the course students will be able to:

1. Describe normal functions and morphology, mode of action and clinical importance of different components of food, enzymes, hormones, connective tissue, nerve tissue and cell.
2. Acquire knowledge about of isotopes, water , electrolytes and biophysics
3. Discuss nutritional aspects of carbohydrates, lipids, proteins & vitamins &their metabolism with special reference to obesity.

ELECTROTHERAPY-I

At the end of the course students will be able to:

1. Understand physical principles, techniques, effects and laws governing electrotherapy.
2. Describe main electrical supply, chemical and magnetic effects of current electricity, electric shock , certain common electrical components such as transistors, valves, capacitors, transformers etc and the simple instruments used to test /calibrate these components such as potentiometer, oscilloscope etc of the circuitry, and will be able to identify such components.
3. Acquire knowledge of various superficial thermal agents such as Paraffin wax bath, Cryotherapy, electrical heating pads etc. their physiological and therapeutic effects, indications, contraindications; and also acquire the skill of application.
4. Demonstrate various physiotherapy modalities like infra red radiation, ultra violet rays, TENS, muscle stimulator along with their types and applications.

EXERCISETHERAPY-I

At the end of the course students will be able to:

1. Learn principles, techniques, assessment and general areas of application of exercise therapy.
2. Describe various positions and movements along with their application, effects, areas of implementation and uses.
3. Practice various exercise therapy techniques such as suspension therapy, yoga, therapeutic massage and relaxation and gain confidence in performing these skills before implementing the same on the patients.
4. Practice various assessment strategies such as goniometry, tone assessment, muscle power assessment and understand their principles, procedures, indications, contraindications and precautions.

SOCIOLOGY & COMMUNITY HEALTH

At the end of the course students will be able to:

1. Define sociology, its uses and application in physiotherapy.
2. Understand social factors affecting health status and illness and consequences of illness and their treatment.
3. Understand meaning of socialisation and social groups along with their role in rehabilitation of patients.
4. Understand the role of family, community, culture and caste system in development of behaviour, determining beliefs and their influence on health of the people.
5. Learn to assess social problems and role of social worker, social control and social security in regulation of human behaviour, social deviance and disease.
6. Understand community based rehabilitation in relation to different medical and surgical conditions.

PUNJABI

At the end of the course students will be able to:

1. Acquire the knowledge about the Punjabi language and grammar.
2. Know the stories as a form of literature.
3. Get basic knowledge of linguistics.
4. Know about the word formation and vocabulary.
5. Know how to study literature.

PUNJAB HISTORY AND CULTURE

At the end of the course students will be able to:

1. Acquire knowledge about physical features, history and culture of Punjab.
2. Impact of other religions, culture and invasions on Punjab.
3. Development of education, literature, art and architecture on Punjab.

DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION

BPT 2ND YEAR

PATHOLOGY AND MICROBIOLOGY

PATHOLOGY

At the end of the course students will be able to:

1. Learn aims and objectives of pathology and microbiology.
2. Learn pathological changes in various conditions, diseases and disorders.
3. Acquire the knowledge of concepts of cell injury & changes produced thereby in different tissues & organs - capacity of the body in healing process
4. Recall the etio–pathogenesis, the pathological effects & the clinico–pathological correlation of common infections &non-infectious diseases.

MICROBIOLOGY

At the end of the course students will be able to:

1. Acquire knowledge of various microorganisms, infections caused by them and prevention and control of those organisms.
2. Learn about various infectious diseases with respect to their causative organism. Mode of transmission, prevention and diagnostic test.

PHARMACOLOGY

At the end of the course students will be able to:

1. Describe Pharmacological effects of commonly used drugs by patients referred for Physiotherapy, list their adverse reactions, precautions to be taken & contraindications, methods & routes of administration.
2. Describe action of drugs on CNS,PNS, neuromuscular junction, cardiovascular system,endocrine system and muscles.
3. Recall various drugs used for pain management and chemotherapeutic agents.

ELECTROTHERAPY II

At the end of the course students will be able to:

1. Understand the effect of electrical stimulation on neuromuscular physiology.
2. Demonstrate physiological and therapeutic effects of heat, cold and electric currents.
3. Demonstrate physical principles of electromagnetic radiation and sound.
4. Demonstrate the knowledge about construction, working , biophysical effects, therapeutic effects, techniques of application, indications, contraindications and precautions of various physiotherapeutic modalities like SWD, MWD, IFT, Ultrasound, LASER, intermittent compression therapy, shockwave therapy and biofeedback.
5. Demonstrate knowledge about electro- diagnosis using EMG and ENG

EXERCISE THERAPY II

At the end of the course students will be able to:

1. Acquire knowledge about the principles, classification, techniques, physiological & therapeutic effects, indications & contraindications of therapeutic exercises.
2. Assess and evaluate strength, mobility, balance, coordination, posture and gait.
3. Demonstrate various therapeutic techniques such as mobilization, PNF, breathing exercises, muscle energy technique, group therapy and yoga and know how to implement these techniques on patients.
4. Demonstrate various therapeutic modalities and their implementation on patient like hydrotherapy and traction.

BIOMECHANICS

At the end of the course students will be able to:

1. Acquire knowledge about mechanics including motion, forces, parallel forces system, concurrent force systems Centre of Gravity, line of gravity, stability and equilibrium.
2. Acquire knowledge about structure, classification and function of joints and muscles.
3. Acquire knowledge about normal and abnormal gait and posture and factors responsible for causing such abnormalities and methods of assessing the same.

PSYCHOLOGY

At the end of the course students will be able to:

1. Understand general psychology including various schools, methods and branches of psychology.
2. Understand the importance and relation of heredity, environment, development and
3. Understand about intelligence, motivation, emotion, psychological needs and personality of people.
4. Understand the concept of learning, thinking, frustration, sensation and perception.
5. Understand the concept of leadership and ego defence mechanism.
6. Understand the concept of stress and its relation to heath, sickness and profession.
7. Find reasons for non-compliance among patients and improving compliance behaviour.
8. Understand specific psychological reactions and needs of geriatric and paediatric patients.

ENVIRONMENTAL STUDIES

At the end of the course students will be able to:

1. To identify surrounding natural resources including renewable resources and non-renewable resources and practices for their restoration.
2. To acquire the awareness on the ecosystem structure and process which interlinked with human survival, intensively need attention at global and regional level.

3. To identify common and adverse impacts of human activities on biotic communities, soil, water, and air quality and suggest sustainable strategies to mitigate these impacts.
4. Develop an understanding of environmental pollutions and hazards and general measures to control them.
5. To realize the importance of biodiversity for maintaining ecological balance and Global conservation practices and strategies.
6. To analyze the need for sustainable development in respect to environmental management through Policies, movements and social awareness.
7. To acquire skills required to research and analyze environmental issues scientifically in applied situations such as careers.

BPT 3RD YEAR

ORTHOPAEDICS

At the end of the course students will be able to:

1. Know the aetiology, classification, pathology, clinical features, relevant investigations, complications, surgical and non-surgical management of various traumatic and non traumatic orthopaedic conditions.
2. Gain the skill of clinical examination & interpretation of the preoperative cold cases & all the post- operative cases.
3. Will be able to read & interpret salient features of the X-ray of the spine & extremities
4. Gain knowledge about various Pathological and biochemical sudies pertaining to Orthopedic conditions.
5. Will be able to correlate the radiological findings with the clinical findings.

MEDICINE

At the end of the course students will be able to:

1. Describe mode of transfer and general preventive measures of bacterial, viral, metabolic and deficiency diseases.
2. Describe etiology, pathophysiology, signs & symptoms, clinical evaluation & management of the various hematological, cardiovascular, digestive and Respiratory Conditions.
3. Describe etiology, pathophysiology, signs & symptoms, clinical evaluation & management of the various diseases of kidney, liver and skin.
4. Acquire knowledge about the defence mechanism, symptoms, types & causes of mental disorders and psychosomatic disorders along with the therapies used to treat them.

PHYSIOTHERAPY IN ORTHOPAEDIC CONDITIONS

At the end of the course students will be able to:

1. Identify, discuss & analyze various traumatic and non traumatic musculoskeletal conditions and injuries in terms of biomechanical, kinesiology & biophysical basis & correlate the same with the provisional diagnosis, routine radiological & electrophysiological investigations & arrive at appropriate functional diagnosis with clinical reasoning.
2. Plan & prescribe as well as acquire the skill of executing short & long term Physiotherapy treatment by selecting appropriate modes of exercise therapy, electro-therapy & appropriate ergonomic advice for the relief of pain, restoration / Maintenance of function & rehabilitation for maximum functional independence in A.D.L. at home & work place.
3. Describe causes prevention and management of sports injuries.

PHYSIOTHERAPY IN MEDICAL CONDITIONS–I

At the end of the course students will be able to:

1. Gain knowledge about the pathological principles and physiotherapy management of inflammation, oedema, arthritis, allied conditions, common skin conditions, respiratory conditions, deficiency diseases and psychiatric disorders.
2. Acquire knowledge about normal respiration, chest expansion and various investigative procedures used in diagnosis of respiratory disorders.
3. Acquire knowledge about normal anatomy and physiology of cardiovascular system.
4. Acquire knowledge about pathological changes, investigative procedures and physiotherapy management of various cardiovascular conditions.

RESEARCH METHODOLOGY AND BIOSTATISTICS

At the end of the course students will be able to:

1. Apply the principles of research and biostatistics to health practice including the design and implementation of health related research studies.
2. Plan, design and execute a research study.
3. Acqire knowledge about various tests and parameters used for biostastistical analysis.
4. Acquire knowledge about role of research and biostatistics in physiotherapy .

NEUROLOGY

At the end of the course students will be able to:

1. Acquire knowledge about basic neuroanatomy and neurophysiology.
2. Assess and evaluate neurological patients.
3. Make proper treatment plan on the basis of neurological conditions of the patient.
4. Understand the basic neurological conditions which commonly cause disability and their management.
5. Acquire knowledge about aetiology, classification, pathology, clinical features, relevant investigations, complications, surgical and non surgical management of various neurological conditions.

BPT 4th YEAR

GENERAL SURGERY

At the end of the course students will be able to:

1. Acquire knowledge about various surgical procedures and their implementation.
2. Acquire knowledge about various procedures like blood transfusion, anesthesia and skin grafting.
3. Acquire knowledge about aetiology, clinical features and management of various conditions like shock, haemorrhage, wounds, scars, ulcers, burns etc.
4. Acquire knowledge about various conditions related to obstetrics, gynaecology, ophthalmology and ENT along with their management.

COMMUNITY PHYSIOTHERAPY & REHABILITATION

At the end of the course students will be able to:

1. Understand the concept of health care and management in occupational health and its importance at work place, ethical guidelines to follow in health examination at work place.
2. Identify clinical reasoning the prevailing contextual factors, causing high risk responsible for various dysfunctions and morbidity related to sedentary life style and specific community like women, children, aged as well as industrial workers and describe planning strategies of interventional policies to combat such problems.
3. Role of PT in improving morbidity, expected clinical and functional recovery, reasons for non- compliance in specific community environment and solution for the same.
4. Promote community oriented physiotherapy and extension service through strong community relationships and develop behavioral skills and humanitarian approach while communicating with patients, patient caregivers, society and co-workers to promote individual and community health.
5. Understand physiology of aging process and its influence on physical fitness.
6. Learn, understand and implement ethical guidelines regarding patient privacy in the clinical settings.
7. Make people aware about family planning and different policies and schemes of Indian government related to it.
8. Be able to gain the ability to collaborate with other health professionals for effective service delivery & community satisfaction.

PAEDIATRICS & GERIATRICS

At the end of the course students will be able to:

1. Relevant anatomy and physiology of various obstetric and gynaecological conditions.
2. Acquire knowledge about normal developmental of a child.
3. Examine and assess pediatric and geriatric patient.

4. Acquire knowledge about various congenital and acquired musculoskeletal, neurological, cardiopulmonary disorders, hereditary disorders, nutritional deficiency and developmental disorders..
5. Acquire knowledge about various age related disorders and their management.

PHYSIOTHERAPY IN MEDICAL CONDITIONS–II

At the end of the course students will be able to:

1. Examine and assess neurological, paediatric and geriatric patients.
2. Acquire knowledge about pathological changes and physiotherapy management of various neurological, paediatric and geriatric conditions.

PHYSIOTHERAPYINSURGICALCONDITIONS

At the end of the course students will be able to:

1. Acquire knowledge about pathological changes, pre and post operative management of various surgical conditions.
2. Demonstrate antenatal and post natal physiotherapy.
3. Demonstrate application of intensive unit apparatus.

COMPUTER APPLICATIONS

At the end of the course students will be able to:

1. Gain knowledge about various components of a personal computer.
2. Have working knowledge of hardware and software.
3. Practice the operational skills of common computer applications, including work processing & spread sheet software.
4. Have a basic knowledge of utility of multi–media.
5. Learn skills of web surfing–For literature, researches relevant to the field of medicine.