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# DESH BHAGAT UNIVERSITY, MANDI GOBINDGARH

## FACULTY OF ALLIED HEALTH SCIENCES

### Bachelor of Physiotherapy

#### PROGRAM OUTCOMES (POs)

After completing B.P.T course, the students will be able to:

**PO1: Employability:** The students can work in the following: Defence Ministry of India, in central and state level governmental hospitals, private multi-specialty hospitals and academic institutes, in private companies.

**PO2: Environment and Sustainability:** Student can work and sustain in his field in country and as well as abroad it has vast field across the globe.

**PO3: Modern Tool Usage:** The student would be able to use different physiotherapeutic modalities as well as techniques (MFR, TAPING, CUPPING, NEEDLING, NDT, PNF) etc.

**PO4: Lifelong learning:** The student would be able to deal with patient, take history of the patient, differentially diagnose the patient, and prescribe the treatment accordingly.

**PO5: Entrepreneurship:** The student would be able to set up his/her own clinic or joint ventures.

**PO6: Understand basic life sciences:** The student would be able to know anatomical, physiological, and biomechanical working of human body.

**PO7: Skill development:** The student would be able to perform various manual techniques to treat the patients.

**Course Code:** BPTA-101

**Title of the Course:** Human Anatomy

L	T	P	C
5	0	0	5

#### Course Outcomes (COs)

**CO1:** A student will be able to understand and identify all gross anatomical structures; particular emphasis will be placed on description of bones, joints, muscles, brain, cardio-pulmonary and nervous systems as these relate to the application of Physiotherapy.

**CO2:** Demonstrate different movements of joints, there attachments, palpate important bony landmarks.

**CO3:** A student should apply the gross anatomy knowledge while treating the patients.

**Course Code:** BPTA-102

**Title of the Course:** Human Anatomy (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** A student will be able to understand and identify all gross anatomical structures; particular emphasis will be placed on description of bones, joints, muscles, brain, cardio-pulmonary and nervous systems as these relate to the application of Physiotherapy.

**CO2:** Demonstrate different movements of joints, there attachments, palpate important bony landmarks.

**CO3:** A student should apply the gross anatomy knowledge while treating the patients.

**Course Code:** -BPTP-103

**Title of the Course:** Human Physiology

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Understand the basis of normal human physiology with special emphasis on the functioning of the cardiovascular, musculoskeletal and nervous systems.

**CO2:** To understand the functional mechanisms of each organ system.

**CO3:** Understand how abnormal Physiology affects human function and dysfunction of the human body.

**CO4:** To understand interaction and integration of different organ systems in health and diseases.

**Course Code:-**BPTP-104

**Title of the Course:** Human Physiology (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** Understand the basis of normal human physiology with special emphasis on the functioning of the cardiovascular, musculoskeletal and nervous systems.

**CO2:** To understand the functional mechanisms of each organ system.

**CO3:** Understand how abnormal Physiology affects human function and dysfunction of the human body.

**CO4:** To understand interaction and integration of different organ systems in health and diseases.

**Course Code:-**BPTE-105

**Title of the Course:** -Exercise Therapy –I

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Understand clarification of movement, muscle work related to exercise therapy.

**CO2:** Analyse the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Practice different exercise therapy techniques and gain confidence in performing these skills before implementing the same on the patients so that high quality patient care is ensured.

**CO4:** To know about theoretical and practical knowledge of message techniques.

**Course Code:-BPTE-106**

**Title of the Course: -Exercise Therapy-I (Pr)**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** Understand clarification of movement, muscle work related to exercise therapy.

**CO2:** Analyse the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Practice different exercise therapy techniques and gain confidence in performing these skills before implementing the same on the patients so that high quality patient care is ensured.

**CO4:** To know about theoretical and practical knowledge of message techniques.

**Course Code:-BPTT-107**

**Title of the Course: -Electro Therapy-I**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** To know about medical electronics and electricity.

**CO2:** Enumerate types and production of various therapeutic currents and describe the panel diagram of the mechanics.

**CO3:** Identify various types of electrodes used in therapeutics anal significance of various media used in reducing skin resistance.

**CO4:** Analyse the working of the various electrotherapeutic equipment's.

**Course Code:-BPTT-108**

**Title of the Course: -Electro Therapy-I (Pr)**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** To know about medical electronics and electricity.

**CO2:** Enumerate types and production of various therapeutic currents and describe the panel diagram of the mechanics.

**CO3:** Identify various types of electrodes used in therapeutics anal significance of various media used in reducing skin resistance.

**CO4:** Analyse the working of the various electrotherapeutic equipment's.

**Course Code:-**BPTP-109

**Title of the Course: -** Health and Social Psychology

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	5	4

**Course Outcomes (COs)**

**CO1:** Recognize and help with the psychological factors involved in disability, pain, disfigurement, unconscious patients, chronic illness, death, bereavement and medical- surgical patients/conditions.

**CO2:** Understand the elementary principles of behaviour for applying in the therapeutic environment.

**CO3:** Perform psychosocial assessment of patients in various developmental stages.

**CO4:** Understand Ego defence mechanisms and learn counselling techniques to help those in need.

**Course Code:-**BPTB-110

**Title of the Course: Biochemistry**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	5	4

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of biochemistry.

**CO2:** Acquire the knowledge in biochemistry that required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**CO4:** Acquire the knowledge about healthy balanced diet with its nutritive importance and dietary deficiencies.

**Course Code: BPTY-111**

**Title of the Course: Fundamentals of Yoga**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Demonstrate basic skills associated with yoga activities including strength and flexibility, balance and coordination.

**CO2:** Identify opportunities for participation in yoga activities in the community.

**CO3:** Assess current personal fitness levels.

**Course Code: BPTR-112**

**Title of the Course:-**Record Keeping and Medical Terminology

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
2	0	0	2

**Course Outcomes (COs)**

**CO1:** Student will learn different methods to keep the medical records.

**CO2:** Student will learn medical terminology of medical science.

**CO3:** Learn about the importance of record keeping.

**Course Code:** ENG-101C\*

**Title of the Course:** General English

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
2	0	0	2

**Course Outcomes (COs)**

**CO1:** Students learn to use general, social and professional language.

**CO2:** Polishing manners to behave appropriately in social and professional circles.

**CO3:** Handling difficulty situations with grace style and professionalism.

## **BPT-2<sup>nd</sup> Year**

**Course Code:** BPTE-201

**Title of the Course:-**Exercise Therapy-II

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Learn the principles, technique and effects of exercise as a therapeutic modality in the restoration of physical function.

**CO2:** Analyse the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Understand relaxation techniques, its principles along with their effects & uses.

**CO4:** To know about theoretical and practical knowledge of Stretching techniques.

**Course Code:** BPTE-202

**Title of the Course:-**Exercise Therapy-II (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** Learn the principles, technique and effects of exercise as a therapeutic modality in the restoration of physical function.

**CO2:** Analyse the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Understand relaxation techniques, its principles along with their effects & uses.

**CO4:** To know about theoretical and practical knowledge of Stretching techniques.

**CO5:** To study plan and practice various exercise programs for normal persons of various age groups.

**Course Code:** BPTT-203

**Title of the Course:-Electro Therapy-II**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** The student must be able to identify the best possible electro modalities for given condition and optimum method, dosage for the modality.

**CO2:** Students must be able to use the modalities safely and by following the guideline and able to understand current recommendations.

**CO3:** Students must be technically and clinically competent for independent decision making regarding the best modality for treatment.

**Course Code: BPTT-204**

**Title of the Course:-Electro Therapy-II (Pr)**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** The student must be able to identify the best possible electro modalities for given condition and optimum method, dosage for the modality.

**CO2:** Students must be able to use the modalities safely and by following the guideline and able to understand current recommendations.

**CO3:** Students must be technically and clinically competent for independent decision making regarding the best modality for treatment.

**Course Code: BPTB-205**

**Title of the Course:-Basic Concepts of Biomechanics**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Acquire the knowledge of kinetics and kinematics.

**CO2:** Recall axis and plane of spine and extremities.

**CO3:** Experience quantitative methods of movement analysis using various methods.

**CO4:** Apply the analytic methods to specific example of normal human motor performance.

**CO5:** Use these methods for evaluation and treatment of disorders of the musculoskeletal system.

**Course Code: BPTM-206**

**Title of the Course:-Pathology and Microbiology**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Learn the pathological changes in various conditions, diseases and disorders, which are commonly treated by physiotherapy.

**CO2:** Demonstrate an understanding of the pathology and microbiology of common diseases that therapists would encounter in their daily practice.

**CO3:** Understand how to protect themselves and their patients from infections during their interactions.

**CO4:** Understand to recognize the sign and symptom considered red flag for serious diseases.

**Course Code:** BPTP-207

**Title of the Course:-**Pharmacology

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**COURSE OUTCOMES**

**CO1:** Possess a relevant knowledge in basic principles of pharmacology and its recent advances

**CO2:** Understand the basic pharmacology of common drugs used, their importance in the overall treatment including Physiotherapy

**CO3:** Understand the general principles of drug action and the handling of drugs by the body.

**CO4:** Understand the contribution of both drug and physiotherapy factors in the outcome of treatment.

**Course Code:** BPTS-208

**Title of the Course:-**Sociology

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Demonstrate an understanding of the role of socio-cultural factors as determinants of health and behaviour in health and sickness.

**CO2:** Understand the role of family and community in the development of behaviours.

**CO3:** Develop a holistic outlook toward the structure of society and community resources.

**Course Code:** BPTC-209

**Title of the Course:** Computer Applications (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	4	2

**Course Objectives (Cos)**

**CO1:** Demonstrate a basic understanding of computer hardware and software.

**CO2:** Demonstrate basic understanding of network principles.

**Course Code:** BPTS-210

**Title of the Course:-**Environmental studies

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO 1:** Understand key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.

**CO 2:** Appreciate concepts and methods from ecological and physical sciences and their application in environmental problem solving.

**CO 3:** Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.

**CO 4:** Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.

## B.P.T-3rd Year

**Course Code:** BPTN-301

**Title of the Course:** Clinical Neurology

L	T	P	C
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of nervous system

**CO2:** Acquire the knowledge in nervous system that is required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTN-302

**Title of the Course:** Clinical Neurology (Pr)

L	T	P	C
0	0	6	3

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of nervous system

**CO2:** Acquire the knowledge in nervous system that is required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTO-303

**Title of the Course:** Clinical Orthopedics

L	T	P	C
5	0	0	5

**Course Outcomes (COs)**

**CO1:** To be able to discuss etiology, clinical symptoms and management of various musculoskeletal conditions.

**CO2:** Acquire the knowledge in skeletal system that is required to be practiced in community and at all levels of health care system.

**CO3:** To be able to read and interpret features of X-ray and co-relate with the clinical findings.

**Course Code:** BPTO-304

**Title of the Course:** Clinical Orthopedics (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	6	3

**Course Outcomes (COs)**

**CO1:** To be able to discuss etiology, clinical symptoms and management of various musculoskeletal conditions.

**CO2:** Acquire the knowledge in skeletal system that is required to be practiced in community and at all levels of health care system.

**CO3:** To be able to read and interpret features of X-ray and co-relate with the clinical findings.

**Course Code:** BPTM-305

**Title of the Course:** General Medicine-I

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of general diseases and its pathology.

**CO2:** Acquire the knowledge in medicine that is required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTM-306

**Title of the Course:** General Medicine-I (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	4	2

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of general diseases and its pathology.

**CO2:** Acquire the knowledge in medicine that is required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTS-307

**Title of the Course:** General Surgery-I

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of general surgery and female reproductive system

**CO2:** Acquire the knowledge in surgeries that are required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTS-308

**Title of the Course:** General Surgery-I (Pr)

L	T	P	C
0	0	4	2

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of general surgery and female reproductive system

**CO2:** Acquire the knowledge in surgeries that are required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTR-309

**Title of the Course:** Research Methodology

L	T	P	C
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Understand some basic concepts of research and its methodologies

**CO2:** Propose the required numerical skills necessary to carry out research.

**CO3:** Organize and conduct research (advanced project) in a more appropriate manner.

**Course Code:** BPTP-310

**Title of the Course:** Practice of Physiotherapy

L	T	P	C
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Demonstrate ethical awareness, the ability to do ethical reflection, and the ability to apply ethical principles in decision-making.

**CO2:** Understand the ethical principles of physiotherapy profession.

**CO3:** Understand principles of management in personal management, time management and administration including budgeting.

## **B.P.T-4th Year**

**Course Code:** BPTO-401

**Title of the Course:** Physiotherapy in Orthopedic Conditions

L	T	P	C
5	0	0	5

**Course Objectives (COs)**

**CO1:** Demonstrate comprehensive understanding of general diseases and its pathology.

**CO2:** Acquire the knowledge in medicine that is required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code:** BPTO-402

**Title of the Course:** Physiotherapy in Orthopedic Conditions (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	4	2

**Course Objectives (COs)**

**CO1:** Demonstrate comprehensive understanding of general diseases and its pathology.

**CO2:** Acquire the knowledge in medicine that is required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code-**BPTS-403

**Title of the Course:** Physiotherapy in Neurological Conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of general surgery and female reproductive system

**CO2:** Acquire the knowledge in surgeries that are required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code-**BPTN-404

**Title of the Course:** Physiotherapy in Neurological Conditions (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	4	2

**Course Outcomes (COs)**

**CO1:** Demonstrate comprehensive understanding of general surgery and female reproductive system

**CO2:** Acquire the knowledge in surgeries that are required to be practiced in community and at all levels of health care system.

**CO3:** Understand relevant investigations which will help to know about the important medical conditions.

**Course Code-**BPTC-405

**Title of the Course:** Physiotherapy in Cardiopulmonary Conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Integrate the knowledge gained by the students in clinical cardio respiratory conditions with skills gained in exercise therapy electrotherapy and massage, thus enabling them to apply these in clinical situations of dysfunction due to cardio respiratory pathology.

**CO2:** Use physiotherapeutic measures as preventive / restorative Rehabilitative purposes for pulmonary / cardiac patients.

**CO3:** Identify cardio-respiratory dysfunction, set treatment goals and apply their skills in exercise therapy, electrotherapy and massage in clinical situation to restore cardio-respiratory function.

**Course Code-**BPTC-406

**Title of the Course:** Physiotherapy in Cardiopulmonary Conditions (Pr)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	4	2

**Course Outcomes (COs)**

**CO1:** Integrate the knowledge gained by the students in clinical cardio respiratory conditions with skills gained in exercise therapy electrotherapy and massage, thus enabling them to apply these in clinical situations of dysfunction due to cardio respiratory pathology.

**CO2:** Use physiotherapeutic measures as preventive / restorative Rehabilitative purposes for pulmonary / cardiac patients.

**CO3:** Identify cardio-respiratory dysfunction, set treatment goals and apply their skills in exercise therapy, electrotherapy and massage in clinical situation to restore cardio-respiratory function.

**Course Code:** BPTP-407

**Title of the Course:** Physiotherapy in surgical and medical conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
5	0	0	5

**Course Outcomes (COs)**

**CO1:** Demonstrate general understanding of the disease that therapist would encounter in their practice.

**CO2:** Understand the anatomy, physiology and various conditions in Obstetrics and Gynaecological conditions relevant to Physiotherapy.

**CO3:** Assess, investigate and plan physiotherapy interventions post general surgery in a patient.

**Course Code:** BPTD-408

**Title of the Course:** Disability Prevention and Rehabilitation

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Students will understand and appreciate the diverse array of mental health or disability-related problems impacting the individual and the family, in a variety of clinical settings and with respect for the influences of multicultural factors such as culture, ethnicity, race, religion, gender, and sexual orientation.

**CO2:** dents will demonstrate leadership and effective communication skills, showcasing respect and sensitivity for people with disabilities as they develop and sustain productive relationships and work for the common good at local, national, and global levels.

**CO3:** To develop necessary skills for training of volunteers in rehabilitation for therapy especially in the context of CBR.