

BODOLAND UNIVERSITY

Choice Based Credit System

Bachelor of Physiotherapy Curriculum



DEPARTMENT OF PHYSIOTHERAPY
Bodoland University
Science College, Kokrajhar – 783 370
Assam, India

FIRST SEMESTER (0-6 MONTHS)

COURSE CODE	COURSE TITLE	TEACHING SCHEME			
		CONTACT HOURS		CREDIT	
		THEORY	PRACTICAL	L+T+P	TOTAL CREDIT
PT01	C1: HUMAN ANATOMY I	60	90	4+0+6	10
PT02	C2: HUMAN PHYSIOLOGY I	75	45	5+0+3	8
PT03	C3: BIOCHEMISTRY	60	-	4+0+0	4
PT04	C4: SOCIOLOGY	60	-	4+0+0	4
PE01	DSE-1: HEALTHCARE DELIVERY SYSTEM IN INDIA	30	-	2+0+0	2
PE02	DSE-2: MEDICAL/ PHYSIOTHERAPY LAW AND ETHICS	30	-	2+0+0	2
PA01	AECC-1: ENGLISH COMMUNICATION	30	-	2+0+0	2
	TOTAL	345	135		32

C 1: HUMAN ANATOMY I

(Credits: Theory-04, Practicals-06)

SUBJECT DESCRIPTION –

It is designed to provide students with the working knowledge of the structure of the human body which is essential foundation for their clinical studies. In this subject, the student will learn about the identification of all gross anatomical structures. The focus of the course is in-depth study and analysis of the regional and systemic organization of the body. Particular emphasis will be placed on description of musculoskeletal anatomy which includes bones, joints, muscles, cardiovascular system and respiratory system, as these are related to the application of physiotherapy in patients.

THEORY [60hrs.]

1. Histology [5hrs.]
 - General Histology, study of the basic tissues of the body; Microscope, Cell, Epithelium, Connective Tissue, Cartilage, Bone, Muscular tissue, Nerve Tissue – TS & LS, Circulatory system – large sized artery, medium sized artery, large sized vein
 - Lymphoid tissue
 - Skin and its appendages.
2. Embryology [15hrs.]
 - Ovum, Spermatozoa, fertilization and formation of the Germ layers and their derivations.
 - Neural tube, brain vessels and spinal cord,
 - Development of brain and brain stem structures
3. Regional Anatomy [30 hrs.]
 - Thorax:
 - i. Cardio – Vascular System Mediastinum: Divisions and contents Pericardium: Thoracic Wall: position, shape and parts of the heart; conducting System; blood Supply and nerve supply of the heart; names of the blood vessels and their distribution in the body – region wise.
 - ii. Respiratory system - Outline of respiratory passages: Pleura and lungs: position, parts, relations, blood supply and nerve supply; Lungs – emphasize on Broncho pulmonary segments.
 - iii. Diaphragm: Origin, insertion, nerve supply and action, openings in the diaphragm.

- Abdomen:
 - i. Large blood vessels of the gut.
 - ii. Location, size, shape, features, blood supply, nerve supply and functions of the following: stomach, liver, spleen, pancreas, kidney, urinary bladder, intestines, gall bladder.
 - Pelvis:
 - i. Position, shape, size, features, blood supply and nerve supply of the male and female reproductive system.
4. Endocrine glands: [10 hrs.]
- Position, shape, size, function, blood supply and nerve supply of the following glands: Hypothalamus and pituitary gland, thyroid glands.

PRACTICAL [90hrs.]

List of Practical / Demonstrations

- Histology-Elementary tissue including surface Anatomy [20 hrs.]
- Embryology-models, charts & X-rays[10Hrs]
- Demonstration of the muscles of the whole body and organs in thorax and abdomen in a cadaver [15hrs]
- Thorax including surface anatomy, abdominal muscles, joints[30Hrs]
- Surface making of the lung, pleura, fissures and lobes of lungs, heart, liver, spleen, Kidney, cranial nerves, spinal nerves and important blood vessels. [15 hrs.]

STUDENT LEARNING OUTCOMES/ OBJECTIVES:

At the end of the semester the student will be able to:

- To understand the level of organization of the human body.
- To understand the topographical and functional anatomy of thorax and abdomen as well as functions of glands.
- To understand its application in practice of physiotherapy.

Recommended Textbook:

- SNELL [Richard S], Clinical Anatomy for Medical students: Ed. 5. Little Brown and Company Boston. 1995, p898
- B.D Chaurasia's Human Anatomy – Regional and Applied; Volume I, Volume II and Volume III.
- MOORIE [Keith L], Clinically Oriented Anatomy. Ed.3., Williams and Wilkins, Baltimore,1992, p917

- DATTA [A.K], Essentials of human Anatomy: Thorax and Abdomen Ed 2. Vol. I Current Book International, Calcutta 1994, p433
- DATTA [A.K], Essentials of human Head and Neck Ed 2. Vol. II, Current Book International, Calcutta 1995, p363
- SINGH [Inderbir], Text book of Anatomy with color atlas: Introduction, Osteology, Upper Extremity, Lower Extremity. Vol I. P Brothers, New Delhi 1996
- SINGH [Inderbir], Text book of Anatomy with color Atlas: Thorax and Abdomen. Vol II. JP Brothers, New Delhi 1996
- SING H [Inderbir], Text book of Anatomy with color Atlas: Head and Neck Central Nervous System. Vol III. JP Brothers, New Delhi 1996
- SINGH [Inderbir], Human Osteology. JP Brothers, New Delhi 1990,p191
- SINGH [Inderbir], Human Histology. JP Brothers, New Delhi 1990,p191
- SINGH [Inderbir], Human Embryology. JP Brothers, New Delhi 1990,p191

PRACTICALS

- ROMANES [G J], Cunningham manual of practical anatomy: upper and lower limb ed. 15Vol 1 Oxford Medical Publication, Oxford 1996, P263
- ROMANES [G J], Cunningham manual of practical anatomy : Thorax and abdomen ed15 Vol II Oxford Medical Publication, Oxford 1996, P298
- ROMANES [G J], Cunningham manual of practical anatomy : Head and Neck and Brain ed 15 Vol II Oxford Medical Publication, Oxford 1996, P346

C 2: HUMAN PHYSIOLOGY – I

(Credits: Theory-05, Practicals-03)

SUBJECT DESCRIPTION –

In this subject, the student will enhance in the basics of normal human physiology and in-depth knowledge of fundamental reactions of living organisms, particularly in the human body with special emphasis on the functioning Cell, Blood, Nerve-Muscle Physiology, Cardiovascular, Respiratory, Digestive and Endocrine system.

THEORY [75 hrs.]

1. General Physiology [2hrs.]
 - Cell: Morphology. Organelles: their structure and functions
 - Transport Mechanisms across the cell membrane
 - Body fluids: Distribution, composition.
2. Blood [10hrs.]
 - Introduction: Composition and functions of blood.
 - Plasma: Composition, formation, functions. Plasma proteins.
 - RBC: count and its variations. Erythropoiesis- stages, factors regulating. Reticulo-endothelial system (in brief) Hemoglobin –structure, function and derivatives Anemia (in detail), types of Jaundice. Blood indices, PCV, ESR.
 - WBC: Classification. Morphology, functions, count, its variation of each. Immunity
 - Platelets: Morphology, functions, count, its variations
 - Hemostatic mechanisms: Blood coagulation–factors, mechanisms. Their disorders. Anticoagulants.
 - Blood Groups: Landsteiner’s law. Types, significance, determination, Erythroblastosis foetalis.
 - Blood Transfusion: Cross matching. Indications and complications.
3. Nerve Muscle Physiology [12hrs.]
 - Introduction: Resting membrane potential. Action potential – ionic basis and properties.
 - Nerve: Structure and functions of neurons. Classification, Properties and impulse transmission of nerve fibers. Nerve injury – degeneration and regeneration.
 - Muscle: Classification. Skeletal muscle: Structure. Neuromuscular junction: Structure. Neuromuscular transmission, myasthenia gravis. Excitation- Contraction coupling. Rigormortis.
4. Cardiovascular System [15 hrs.]
 - Introduction: Physiological anatomy and nerve supply of the heart and blood vessels. Organization of CVS. Cardiac muscles: Structure. Ionic basis of action potential and pacemaker potential. Properties.

- Conducting system: Components. Impulse conduction Cardiac Cycle: Definition. Phases of cardiac cycle. Pressure and volume curves. Heart sounds – causes, character. ECG: Definition. Different types of leads. Waves and their causes. P-R interval. Heart block.
- Cardiac Output: Definition. Normal value. Determinants. Stroke volume and its regulation. Heart rate and its regulation. Their variations
- Arterial Blood Pressure: Definition. Normal values and its variations. Determinants. Peripheral resistance. Regulation of BP.
- Arterial pulse.
- Shock – Definition. Classification–causes and features
- Regional Circulation: Coronary, Cerebral and Cutaneous circulation.

5. Respiratory System - [15 hrs.]

- Introduction: Physiological anatomy – Pleura, tracheo-bronchial tree, alveolus, respiratory membrane and their nerve supply. Functions of respiratory system. Respiratory muscles.
- Mechanics of breathing: Intrapleural and Intrapulmonary pressure changes during respiration. Chest expansion. Lung compliance: Normal value, pressure-volume curve, factors affecting compliance and its variations. Surfactant – Composition, production, functions. RDS
- Dead Space: Types and their definition.
- Pulmonary Circulation. Ventilation-perfusion ratio and its importance.
- Transport of respiratory gases: Diffusion across the respiratory membrane. Oxygen transport – Different forms, oxygen-hemoglobin dissociation curve. Factors affecting it. P50, Haldane and Bohr Effect. Carbon dioxide transport: Different forms, chloride shift.
- Regulation of Respiration: Neural Regulation. Hering-breuer's reflex. Voluntary control. Chemical Regulation.
- Hypoxia: Effects of hypoxia. Types of hypoxia. Hyperbaric oxygen therapy. Acclimatization Hypercapnoea. Asphyxia. Cyanosis – types and features. Dysbarism
- Disorders of Respiration: Dyspnoea. Orthopnoea. Hyperpnoea, hyperventilation, apnoea, tachypnoea. periodic breathing – types Artificial respiration

6. Digestive System - [6hrs.]

- Introduction: Physiological anatomy and nerve supply of alimentary canal. Enteric nervous system
- Salivary Secretion: Saliva: Composition. Functions. Regulation. Mastication (in brief)
- Swallowing: Definition. Different stages. Function.

- Stomach: Functions. Gastric juice: Gland, composition, function, regulation. Gastrin: Production, function and regulation. Peptic ulcer. Gastric motility. Gastric emptying. Vomiting.
 - Pancreatic Secretion: Composition, production, function. Regulation.
 - Intestine: Succus entericus: Composition, function and regulation of secretion. Intestinal motility and its function and regulation.
 - Mechanism of Defecation.
7. Endocrine System - [15 hrs.]
- Introduction: Major endocrine glands. Hormone: classification, mechanism of action. Functions of hormones
 - Parathyroid hormones: secretory cell, action, regulation of secretion. Disorders: Hypoparathyroidism. Hyperthyroidism. Calcium metabolism and its regulation.
 - Adrenal Gland: Adrenal Cortex: Secretory cells, synthesis, action, regulation of secretion of Aldosterone, Cortisol, and Androgens. Disorders: Addison's disease, Cushing's syndrome, Conn's syndrome, Adrenogenital syndrome.
 - Adrenal Medulla: Secretory cells, action, regulation of secretion of adrenaline and noradrenaline. Disorders: Pheochromocytoma.
 - Endocrine Pancreas: Secretory cells, action, regulation of secretion of insulin and glucagon. Glucose metabolism and its regulation. Disorder: Diabetes mellitus.
 - Calcitriol, Thymus and Pineal gland (very brief).
 - Local Hormones. (Briefly).

PRACTICAL [45hrs.]

Practical classes include hematology experiments, clinical examinations, amphibian chart, and recommended demonstrations.

1. Hematology: To be done by the students
 - i. Study of Microscope and its uses
 - ii. Determination of RBC count
 - iii. Determination of WBC count
 - iv. Differential leukocyte count
 - v. Estimation of hemoglobin
 - vi. Calculation of blood indices
 - vii. Determination of blood groups
 - viii. Determination of bleeding time
 - ix. Determination of clotting time

Demonstrations only

- i. Determination of ESR
- ii. Determination of PCV

2. Amphibian Experiments – Demonstration and Dry charts Explanation. Instruments used for frog experiments. Kymograph, heart liver, Muscle trough, stimulator.
 - i. Simple muscle curve.
 - ii. Effect of increasing the strength of the stimuli
 - iii. Effect of temperature on muscle contraction
 - iv. Effect of two successive stimuli.
 - v. Effect of Fatigue.
 - vi. Effect of load on muscle contraction
 - vii. Genesis of tetanus and clonus.
 - viii. Velocity of impulse transmission.

STUDENT LEARNING OUTCOMES/ OBJECTIVES:

At the end of the semester the student will be able to:

- Acquire the knowledge of functions of various system of human body.
- Understand the role of various cells, enzymes and hormones of the human body.
- To demonstrate and understand the various hematological findings.
- To enhance the knowledge of various system and applied physiology of it.

Recommended Textbooks:

- Text book of medical physiology – Guyton Arthur
- Concise medical physiology – Chaudhuri Sujit K.
- Human Physiology – Chatterjee C.C
- Text book of practical Physiology – Ranade.
- Text of Physiology – A.K.Jain.
- Basics of Medical physiology- Venkatesh D & Sudhakar H H
- Manipal Manual of Physiology – Prof. C N Chandrashekar

Reference books:

- Review of Medical Physiology – Ganong William F.
- Physiological basis of Medical practice – Best & Taylor

C 3: BIOCHEMISTRY

(Credits: Theory-04, Practicals-00)

SUBJECT DESCRIPTION –

In this course, the student will learn the essentials of biochemistry in nutrition and biochemical reactions.

THEORY [60hrs.]

1. Nutrition – [5 hrs.]

- Definition, and its significance Energy requirement of a person - Basal metabolic rate: Definition, Normal values, factor affecting BMR Special dynamic action of food.
- Physical activities - Energy expenditure for various activities. Calculation of Introduction, Importance of nutrition Calorific values, Respiratory quotient – energy requirement of a person
- Balanced diet
 - i. Recommended dietary allowances
 - ii. Role of carbohydrates in diet: Digestible carbohydrates and dietary fibers
 - iii. Role of lipids in diet
 - iv. Role of proteins in diet: Quality of proteins - Biological value, net protein utilization, Nutritional aspects of proteins-essential and non- essential amino acids. Nitrogen balance
 - v. Nutritional disorders.

2. Carbohydrate Chemistry – [3 hrs.]

- Definition, general classification with examples, Glycosidic bond
- Structures, composition, sources, properties and functions of Monosaccharides, Disaccharides, Oligosaccharides and Polysaccharides.
- Glycosaminoglycan (mucopolysaccharides)

3. Lipid Chemistry – [3hrs]

- Definition, general classification
- Definition, classification, properties and functions of Fatty acids, Triacylglycerol, Phospholipids, Cholesterol
- Essential fatty acids and their importance
- Lipoproteins: Definition, classification, properties, Sources and function
Ketone bodies

4. Amino-acid Chemistry – [3hrs]

- Amino acid chemistry: Definition, Classification, Peptide bonds
- Peptides: Definition, Biologically important peptides
- Protein chemistry: Definition, Classification, Functions of proteins,

5. Enzymes – [3hrs]
 - Definition, Active site, Cofactor (Coenzyme, Activator), Proenzyme. Classification with examples, Factors effecting enzyme activity, Enzyme inhibition and significance, Isoenzymes, Diagnostic enzymology (clinical significance of enzymes)
6. Nucleotide and Nucleic acid Chemistry - [2hrs]
 - Nucleotide chemistry: Nucleotide composition, functions of free nucleotides in body.
 - Nucleic acid (DNA and RNA) chemistry: Difference between DNA and RNA, Structure of DNA (Watson and Crick model), Functions of DNA. Structure and functions of tRNA, rRNA, mRNA.
7. Carbohydrate Metabolism - [5 hrs.]
 - Introduction, Glycolysis – Aerobic, Anaerobic Citric acid cycle, Substrate level phosphorylation.
 - Glycogen metabolism – Glycogenesis, Glycogenolysis, Metabolic disorders glycogen, Gluconeogenesis, Cori cycle
 - Hormonal regulation of glucose, Glycosuria, Diabetes mellitus.
8. Lipid Metabolism - [5 hrs.]
 - Introduction to lipid metabolism, Lipolysis, Oxidation of fatty acids -oxidation of fatty acids,
 - Lipogenesis - Denovo synthesis of fatty acids, chain elongation, desaturation, triacylglycerol synthesis, fat metabolism in adipose tissues
 - Ketone body metabolism: Ketone body formation (ketogenesis), utilization (ketolysis), ketosis, Rothera's test.
 - Cholesterol metabolism: synthesis, degradation, cholesterol transport
 - Hypercholesterolemia and its effects (atherosclerosis and coronary heart diseases) Hypocholesterolemic agents, Common hyperlipoproteinemia, Fatty liver
9. Amino acid and Protein Metabolism - [5 hrs.]
 - Catabolism of amino acids - Introduction, transamination, deamination, Fate of ammonia, transport of ammonia, Urea cycle
 - Specialized products formed from amino acids - from glycine, arginine, methionine, phenylalanine and tyrosine.
10. Vitamins - [7 hrs.]
 - Definition, classification according to solubility,
 - Individual vitamins - Sources, Coenzyme forms, functions, RDA, digestion, absorption and transport, deficiency and toxicity.
11. Mineral Metabolism- [2hrs]
 - Definition, Sources, RDA, Digestion, absorption, transport, excretion, functions, disorder of Individual minerals - Calcium, phosphate, iron, Magnesium, fluoride, selenium, molybdenum, copper. Phosphate, calcium and iron in detail.
12. Muscle Contraction - [2hrs.]
 - Contractile elements in muscle, briefly on the process of muscle contraction,

Energy for muscle contraction.

13. Biochemistry of Connective tissue - [2 hrs.]

- Introduction, various connective tissue proteins: Collagen, elastin - Structure and associated disorders. Glycoproteins, Proteoglycans.

14. Acid-Base balance - [2 hrs.]

- Acids, bases and buffers, pH. Buffer systems of the body, bicarbonate buffer system Role of lungs and kidneys in acid base balance, Acid base imbalance.

15. Water balance - [1 hrs.]

- Water distribution in the body, Body water, water turnover, Regulation of water balance: role of ADH and thirst center.

16. Electrolyte balance - [1 hrs.]

- Osmolarity. Distribution of electrolytes.
- Electrolyte balance: Role of aldosterone, rennin angiotensin system and ANF.

17. Clinical Biochemistry - [2 hrs.]

- Normal levels of blood and urine constituents, Relevance of blood and urine levels of Glucose, Urea, Uric acid, Creatinine, Calcium, Phosphates, pH and Bicarbonate. Liver function tests, Renal function tests.

STUDENT LEARNING OUTCOMES/ OBJECTIVES:

At the end of the semester the student will be able to:

- To acquire knowledge about chemical composition of nutrients and various metabolic reactions in the body.

Recommended Textbooks:

- MURRAY [ROBERT KK], Harper's Bio Chemistry Ed 24, Prentice Hall. 1996, p925,
- RAMAKRISHNA [S], PRASANNA [KG], RAJAN [R], Text Book of Medical Biochemistry, Ed1, orient Langman, Bombay 1980, and p717.
- VASUDEVAN [DM] and SREE KUMARI [S], Text Book of Bio Chemistry for Medical students, Ed 1, Jaypee Brothers, New Delhi, 1995, p637
- DAS [Debajyothi], Biochemistry, Ed. 7, Academic Publishers Calcutta, 1992, p648
- PRASAD RM, RM's Physiotherapy Textbook Series, Text book of Biochemistry for Bachelor of Physiotherapy First Edition, RM Publications, Mangalore

Reference books:

- Textbook of Medical Bio-Chemistry – Dr. M. N. Chatterjee, Latest Edition, Jaypee Publication.
- Fundamental of Bio-Chemistry – DR. A. C. Deb, Latest Edition, Central Publication.
- Bio-Chemistry introduction – Mekee, Latest Edition, McGraw-Hill

Publication.

C 4: SOCIOLOGY

(Credits: Theory-04, Practicals-00)

SUBJECT DESCRIPTION –

Sociology will introduce student to the basic sociology concepts, principles and social process, social institutions in relation to the individual, family and community and the various social factors affecting the family in rural and urban communities in India will be studied.

THEORY [60hrs.]

1. Introduction: [6 hrs.]
 - Meaning- Definition and scope of sociology
 - Its relation to Anthropology, Psychology, Social Psychology.
 - Methods of Sociological investigations- Case study, social survey, questionnaire, Interview and opinion poll methods.
 - Importance of its study with special reference to Health Care Professionals.
2. Social Factors in Health and disease situations: [4 hrs.]
 - Meaning of social factors
 - Role of social factors in health and illness
3. Socialization: [6 hrs.]
 - Meaning and nature of socialization.
 - Primary, Secondary and Anticipatory socialization.
 - Agencies of socialization.
4. Social Groups: [6 hrs.]
 - Concepts of social groups, influence of formal and informal groups on health and sickness. The role of primary groups and secondary groups in the hospital and rehabilitation setup.
5. Family: [4 hrs.]
 - The family, meaning and definitions.
 - Functions of types of family
 - Changing family patterns
 - Influence of family on the individuals health, family and nutrition, the effects of sickness in the family and psychosomatic disease and their importance to physiotherapy.
6. Community: [4 hrs.]
 - Rural community: Meaning and features –Health hazards of ruralities, health hazards to tribal community.
 - Urban community: Meaning and features- Health hazards of urbanities.
7. Culture and Health: [6 hrs.]
 - Concept of Health

- Concept of Culture
 - Culture and Health
 - Culture and Health Disorders
8. Social Problems of disabled: Consequences of the following social problems in relation to sickness and disability, remedies to prevent these problems. [9 hrs.]
- Population explosion
 - Poverty and unemployment
 - Beggary
 - Juvenile delinquency
 - Prostitution
 - Alcoholism
 - Problems of women in employment
 - Geriatric problems
 - Problems of underprivileged.
9. Social worker: [3 hrs.]
- Meaning of Social Work
 - The role of a Medical Social Worker.

STUDENT LEARNING OUTCOMES/ OBJECTIVES:

At the end of the semester the student will be able to:

- Know about Sociology and its importance in the health care delivery system.
- Understand the role of family and community in the development of human behavior.
- Understand the social and economic aspect of community that influence the health of the people.
- Know the role of therapist as a member of society, and the interdependence of individuals and society.

Recommended Textbooks:

- Sachdeva and Vidyabushan, Introduction to the study of sociology
- INDRANI T K, Text Books of Sociology for Graduates Nurses and Physiotherapy Students. JP Brothers, New Delhi,10

Reference books:

- Sociology for Physiotherapy students by Diyendunarayana Bid, 1st Edition, Jaypee Publication.
- Textbook of Sociology for Physiotherapy Students by KP Neeraja, 1st Edition, Jaypee Publication.

DSE-1: HEALTHCARE DELIVERY SYSTEM IN INDIA

(Credits: Theory-02, Practicals-00)

SUBJECT DESCRIPTION –

The course provides the students a basic insight into the main features of Indian health care delivery system and how it compares with the other systems of the world. Topics to be covered under the subject are as follows:

THEORY [30 Hrs.]

1. Introduction to healthcare delivery system [6 hrs.]
 - Healthcare delivery system in India at primary, secondary and tertiary care
 - Community participation in healthcare delivery system
 - Health system in developed countries.
 - National Health Mission
 - National Health Policy
 - Issues in Health Care Delivery System in India
2. National Health Programme- Background objectives, action plan, targets, operations, achievements and constraints in various National Health Programme. [6 hrs.]
3. Introduction to AYUSH system of medicine [6 hrs.]
 - Introduction to Ayurveda.
 - Yoga and Naturopathy
 - Unani
 - Siddha
 - Homeopathy
4. Health scenario of India- past, present and future [2 hrs.]
5. Demography & Vital Statistics- [5 hrs.]
 - Demography – its concept
 - Vital events of life & its impact on demography
 - Significance and recording of vital statistics
 - Census & its impact on health policy
6. Epidemiology [5hrs.]
 - Principles of Epidemiology
 - Natural History of disease
 - Methods of Epidemiological studies
 - Epidemiology of communicable & non-communicable diseases, disease transmission, host defense immunizing agents, cold chain, immunization, disease monitoring and surveillance.

STUDENT LEARNING OUTCOMES/ OBJECTIVES

At the end of the semester the student will be able to:

- Learner will demonstrate knowledge about the primary aims and objectives of Healthcare delivery system in India.

- Learner will demonstrate knowledge about various Healthcare delivery system & health scenario of India.

Recommended Textbooks:

- Textbook of Preventive & Social Medicine- Dr. K. Park
- Textbook of community medicine: V. K. Mahajan

Reference books

- Population studies – Asha Bhendre
- Effective communication methods – Asha Kaul
- Hospital Administration – Tabish

DSE-2: MEDICAL/ PHYSIOTHERAPY LAW AND ETHICS

(Credits: Theory-02, Practicals-00)

SUBJECT DESCRIPTION –

Legal and ethical considerations are firmly believed to be an integral part of medical practice in planning patient care. Advances in medical sciences, growing sophistication of the modern society's legal framework, increasing awareness of human rights and changing moral principles of the community at large, now result in frequent occurrences of healthcare professionals being caught in dilemmas over aspects arising from daily practice.

Medical/ Physiotherapy ethics has developed into a well based discipline which acts as a "bridge" between theoretical bioethics and the bedside. The goal is "to improve the quality of patient care by identifying, analyzing, and attempting to resolve the ethical problems that arise in practice". Doctors are bound by, not just moral obligations, but also by laws and official regulations that form the legal framework to regulate medical practice. Hence, it is now a universal consensus that legal and ethical considerations are inherent and inseparable parts of good medical practice across the whole.

THEORY [30 Hrs.]

Few of the important and relevant topics that need to focus on are as follows:

1. Medical ethics versus medical law - Definition - Goal - Scope [2 hrs.]
2. Introduction to Code of conduct [2 hrs.]
3. Basic principles of medical ethics – Confidentiality [2 hrs.]
4. Malpractice and negligence - Rational and irrational drug therapy [2 hrs.]
5. Autonomy and informed consent - Right of patients [2 hrs.]
6. Care of the terminally ill- Euthanasia [1 hrs.]
7. Organ transplantation [2 hrs.]
8. Medical diagnosis versus physiotherapy diagnosis. [2 hrs.]
9. Medico legal aspects of medical records – Medico legal case and type- Records and document related to MLC - ownership of medical records - Confidentiality Privilege

communication - Release of medical information - Unauthorized disclosure - retention of medical records - other various aspects. [3 hrs.]

10. Biomedical ethical principles [2 hrs.]
11. Code of ethics for physiotherapists [2 hrs.]
12. Ethics documents for physiotherapists [2 hrs.]
13. Laws affecting physiotherapy practice [2 hrs.]

STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

- Acquire the knowledge of ethical code of professional practice as well as its moral and legal aspects and its role WHO and WCPT.
- Understand the moral values and meaning of ethics.
- Acquire Hospital Discipline and communication skills in relation with patients, peers, seniors and other Professionals.

Recommended Textbooks:

- Medical Ethics by C M Francis.
- George V Lobo – Current Problems in Medical Ethics
- Consumer Protection Act – 1986, Government of India, New Delhi.
- Francis C M – Hospital Administration
- Davies, R and Macaulay, BMC – Hospital Planning and Administration
- Health Services Management, Analysis & Application , Wadsworth Publishing Company, Belmont 100

AECC-1: ENGLISH, COMMUNICATION AND SOFT SKILLS

(Credits: Theory-02, Practicals-00)

SUBJECT DESCRIPTION –

To help learners to develop familiarity with and proficiency in English language, learn the use of language at personal, academic and professional fronts, become accomplished, active readers who appreciate ambiguity and complexity, and who can articulate their own interpretations with an awareness and curiosity for other perspectives. To gain a knowledge of the major traditions of literatures, and an appreciation for the diversity of literary, cultural and social voices within.

THEORY [30 hrs.]

1. Basic Language Skills: Grammar and Usage. [3 hrs.]
2. Business Communication Skills. With focus on speaking - Conversations, discussions, dialogues, short presentations, pronunciation. [3 hrs.]
3. Teaching the different methods of writing like letters, E-mails, report, case study, collecting the patient data etc. Basic compositions, journals, with a focus on paragraph form and organization. [3 hrs.]
4. Basic concepts & principles of good communication [3 hrs.]
5. Special characteristics of health communication [3 hrs.]
6. Types & process of communication – verbal, non-verbal and written communication. Upward, downward and lateral communication. [3 hrs.]
7. Therapeutic communication: empathy versus sympathy. [3 hrs.]
8. Communication methods for teaching and learning. [3 hrs.]
9. Communication methods for patient education. [3 hrs.]
10. Barriers of communication & how to overcome. [3 hrs.]

STUDENT LEARNING OUTCOMES/ OBJECTIVES:

At the end of the semester, the student will be able to:

- To communicate effectively, communicate message accurately, handle intercultural situation that require thoughtful communication.
- To use appropriate words and tones and so on.
- Understand and demonstrate communicative and functional use of English language.
- Appreciate literature and understand socio-cultural context.

Recommended Text Books

- English For Technical Communication Volume 1&2 Combined, Lakshminarayanan RK
- The Functional Aspects of Communication Skills, Prasad P & Sharma R K
- A Communication Grammar of English, Leech Geoffrey
- English Conversation for All Occasions, GKM

- English Vocabulary in use 100 units.....practice, McCarthy M & Odell F 6. Speak Fluent English, Auralog.

Reference:

- English Grammar Collins, Birmingham University, International Language Data Base, Rupa & Co. 1993
- Wren and Martin - Grammar and Composition, 1989, Chanda.& Co, Delhi
- Letters for all Occasions A S Myers. Pub - Harper Perennial
- Spoken English V Shasikumar and P V Dhanija_ Pub. By: Tata McGraw Hill, New Delhi
- Journalism Made Simple , D Wainwright Writers Basic Bookshelf Series, Writers Digest series Interviewing by Joan Clayton Platkon
- Penguin Book of Interviews.