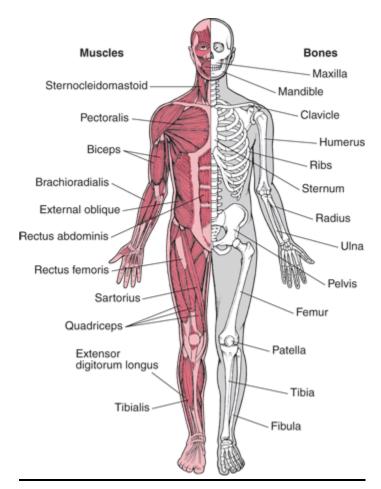


STUDY GUIDE

DOCTOR OF PHYSICAL THERAPY

SINDH INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION

YEAR 1



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Message of Executive Director of SIPM&R

Dear Students!

The faculty and staff in the Department of Physical Therapy at Sindh Institute of Physical Medicine and Rehabilitation extend a warm welcome to the incoming class of Doctor of Physical Therapy students. I would like to congratulate you on your acceptance and admission to our program. You have taken the first step in pursuit of a wonderful and fulfilling career as a physical therapist. The faculty and staff are looking forward to working with your batch in a collaborative effort that will culminate with your graduation as Doctor of Physical Therapy (DPT).

You are joining a program with solid past and an exciting future. Since the inception of the program in 2012, we have graduated over 586 physical therapists that have proudly taken their place in health care and influence the health of people locally, nationally, and globally. SIPMR DPT program is profound to offer:

- A fully accredited PT program
- Diverse, expert & international qualified faculty
- Modern educational facilities and technology
- An opportunity for interdisciplinary collaboration
- Innovative & integrated clinical education program
- One-to-one student mentor program
- On campus PT clinic and other disciplinary services
- Collaboration with tertiary care hospital

We are excited about this new class and we look forward to your time with us. Thank you for choosing us and please know that we stand ready to work with you and serve your journey through the program.

Sincerely,

Prof. Nabila Najam Soomro

Executive Director

Sindh Institute of Physical Medicine and Rehabilitation,

Karachi

Message of Head of Department of Physiotherapy

Dear Students,

Welcome to the Doctor of Physical Therapy (DPT) Program at the Sindh Institute of Physical Medicine and Rehabilitation. We are committed to a creative and scholarly culture focused on developing innovative undergraduates and postgraduates who are prepared to develop unique solutions to dysfunctions, physical & functional impairments which are causing movement restrictions; aiming to limit huge financial burden and disability in our society.

We are passionate about our students and their success. We believe that exposure to a variety of different people with different specialties create an optimal environment for student growth. Therefore we have highly experience faculty and clinical physiotherapists are embedded with updated teaching methodologies, theoretical framework and evidence based assessment and treatment approaches and skills which are necessary for students expected learning outcomes. We are committed to offer high quality education for our students.

This study guide provides you with a description of the DPT program in various aspects. It is essential that you familiarize yourself with these descriptions which are mentioned in this study guide.

Good Wishes

Dr. Saeed Akhter-PT

Head of Department of Physiotherapy
Sindh Institute of Physical Medicine and Rehabilitation
Karachi

OVERVIEW

- Semester: One and Two, Year: One, Duration: 18 weeks each semester
- Timetable hours: Lectures, Self-Directed Study,

Demonstrations, Labs

Credit hours Of Semester I=18

Credit Hours of Semester II=18

Academic Team

Head of Department of Physiotherapy	Dr Saeed Akhter PT
ACADEMIC COORDINATOR:	Dr. Rabail Soomro PT
CO-ACADEMIC COORDINATOR:	Dr Ambreen Asghar Sajjad PT
YEAR-I COORDINATOR	Dr Beenish Adeel PT

COURSES & RESOURCE PERSONS' FACILITATING LEARNING

SEMESTER-I	SEMESTER-II			
ANATOMY-I	ANATOMY –II			
Dr Nusrat Zaidi	Dr Nusrat Zaidi			
PHYSIOLOGY-I	PHYSIOLOGY-II			
Dr Aniqa Siddiqui	Dr Aniqa Siddiqui			
KINESIOLOGY-I	KINESIOLOGY-II			
Dr Urooj Khan PT	 Dr Urooj Khan PT 			
Dr Shumaila Ismail PT	Dr Shumaila Ismail PT			
Dr Fawad Qazi PT	Dr Salman PT			
ENGLISH-I	ENGLISH-II			
Mr Saad Usmani	MR. Saad Usmani			
PAKISTAN STUDIES	ISLAMIC STUDIES/ ETHICS			
Miss Shabana Kamran	Miss Shabana/ Miss Kashmala			
INTRODUCTION TO COMPUTER	SOCIOLOGY			
Mr Salman	Miss Shabana Kamran			
• STUDY GUIDE COMPILED BY:				
 Academic Team of DPT 				

INTRODUCTION TO STUDY GUIDE

WHAT IS A STUDY GUIDE?

It is an aid to:

- Inform students the layout of how student learning program of the semester will progress.
- Help students organize and manage their studies throughout the semester
- Guide students regarding various assessment methods and rules and regulations.

THE STUDY GUIDE:

- Communicates information on organization and management of the semester. This will help the student to contact the right person in case of any difficulty.
- Defines the objectives which are expected to be achieved at the end of the semester.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills, demonstration, tutorial and case based learning that will be implemented to achieve the particular courses objectives.
- Provides a list of learning resources such as books, computer assisted learning programs, web-links, and journals, for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous and semester examinations on the student's overall performance.
- Includes information on the assessment methods that will be held to determine every student'sachievement of objectives.
- Focuses on information pertaining to examination policy, rules and regulations.

CURRICULUM FRAMEWORK

Students will experience integrated curriculum of the 1st & 2nd semesters.

INTEGRATEDCURRICULUM

Integrated teaching means that subjects are presented as a meaningful whole. Students will be able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples.

Case based discussions, computer-based assignments, evidence based practice, early exposure to clinics, wards, and skillsacquisition in skills lab, physiotherapy department are characteristics of integrated teaching program.

LEARNING METHODOLOGIES

The following teaching / learning methods are used to promote better understanding:

- Interactive Lectures
- Hospital / Clinic visits
- Small Group Discussion
- Case- Based Learning
- Practical
- Skills session
- Self-Directed Study

INTERACTIVE LECTURES

In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through power point presentations, questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.

SUPERVISED CLINICAL PRACTICE: In small groups, students observe patients with signs and symptoms in hospital or clinical settings. This helps students to relate knowledge of basic and clinical sciences of the relevant course.

SMALL GROUP SESSION (SGS): This format helps students to clarify concepts acquire skills or attitudes. Sessions are structured with the help of specific exercises

such as patient case, interviews or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self-study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.

CASE- BASED LEARNING: A small group discussion format where learning is focused around a series of questions based on a clinical scenario. Students' discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the semester.

PRACTICAL: Basic science practical's related to anatomy, biochemistry, pathology and microbiology and physiology are schedule for student learning.

SKILLS SESSION: Skills relevant to respective course are observed and practiced where applicable in skills laboratory or Department of Physiotherapy.

SELF DIRECTED STUDY: Students' assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the institute. Students can utilize the time within the institute scheduled hours of self- study.

ASSESSMENT AND GRADING POLICY

Asses	sment Policy For Practical Courses				
	Weightage of Internal Assessment Weightage of Terminal Exam (B)		(B)		
	(A) 70%				
	30%				
	The formative assessment (internal evaluation) includes (A) :		Summative (Final) Assessment includes (B) :		
Mid	term	15%	BCQs	50%	
Tes	st/Quiz/Assignment/Presentation	15%	Viva/OSCE/OSPE	20%	
To	tal (A) =	30%	Total (B) =	70%	
			TOTAL A + B =	100%	

Assessment Policy For Non-Practical Cours	es			
Weightage of Internal Assessment (A) 30%	Weightage of BCQ Terminal Exam (B) 70%			
The formative assessment (internal evaluation) includes (A) :		Summative (Final) Assessment includes (B) :		
Midterm	15%	BCQs	50%	
Test/Quiz/Assignment/Presentation	15%	SAQs/ EMQs	20%	
Total (A) =	30%	Total (B) =	70%	
		TOTAL A + B =	100%	

Theory (knowledge): Best Choice Questions (BCQs) also known as MCQs (Multiple Choice Questions) are used to asses objectives covered in each semester.

- A BCQ has a statement or clinical scenario followed by four to five options (likely answers).
- After reading the statement/scenario student select ONE, the most appropriate answerresponse from the given list of options.
- Correct answer carries one mark, and incorrect 'zero mark'. There is NO negative marking.

OSPE: Objective Structured Practical Examination

- The content may assess application of knowledge, or practical skills.
- Student will complete task in define time at one given station.
- All the students are assessed on the same content by the same examiner in the same allocated time.
- A structured examination will have observed, unobserved, interactive and rest stations.
- Observed and interactive stations will be assessed by internal or external examiners.
- Unobserved will be static stations in which students will have to answer the
 questions related to the given pictures, models or specimens the provided
 response sheet.
- Rest station is a station where there is no task given, and in this time student can organizehis/her thoughts.

Midterm Exams:

Midterm exams will be held in the mid of the semester.

Terminal Examination: will be scheduled on completion of each semester. The method of examination comprises theory exam which includes BCQs and VIVA/OSPE. It is mandatory to give terminal examination and to obtain at least 50% in terminal examination to get clear in the respective subject.

Internal Evaluation

• During the semester, students will be assessed to determine achievement of particular courses objectives through class tests, discussions, presentations, assignments and midterm.

GPA System:

The grade points average (GPA) will be worked out by awarding letter grades on the scale of 4.

Letter grades in all courses/subjects will be awarded on bases of total absolute marks as per following distribution.

Percentage	GPA	Grade
80 – 100	4.0	A+
75 – 79	4.0	Α
70 – 74	3.7	A-
67 – 69	3.3	B+
63 – 66	3.0	В
60 – 62	2.7	B-
56 – 59	2.3	C+
50 – 55	2.0	С
0 – 49	0.0	F/U
Absent	0.0	Abs

ATTENDANCE POLICY

MORE THAN 75%
ATTENDANCE IS REQUIRED TO
SIT FOR THE TERMINAL
EXAMINATION OF THE
SEMESTER.

SEMESTER EXAMINATION RULES & REGULATIONS OF DPT PROGRAM OF SINDH INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION

- In one academic year there will be two semesters. The semester duration is approximately 18 weeks.
- SIPM&R will take terminal examination at the end of each semester.
- Retake/ Improvement exams will be taken at the end of the year.

• Promotion Policy:

- A student has to pass the subjects/ courses/ papers theory & OSPE / OSCE /
 of odd and even semesters of one particular year before being considered
 eligible for promotion to the next year. There will be a semester examination
 and retake examination for each semester.
- If a student is failed in any non-professional course (compulsory subjects) such as Pakistan Studies, English, Islamiat/ Ethics etc, in both regular and retake examinations shall be promoted to the next higher class. Though it will be mandatory for the student to clear all the courses for completion of the respective program within the allotted time period for that respective program.

• Number of Attempts:

- Every student has 10 years' time period to complete DPT Program being conducted as per HEC Policy.
- For 1st year students: the maximum number of attempts allowed to continue the studies are 4 (Regular & Retake) attempts. If any candidate fails to clear 1st year in 4 attempts (each subject) he / she will not be allowed to continue studies.
- Any student who does not clear both semesters in one academic year will be considered to be year back.

1st Professional Year Courses

			Course	e Credit Ho	ours	Semes
Seme	Courses	CODES	Theory	Practica	Total	Credit
ster				1/		Hours
				Labs.		
	Anatomy-I	A30101	3	1	4	
	Physiology-I	A30102	2	1	3	
1	Kinesiology-I	A30103	2	1	3	
	English-I (Functional English)	A30104	3	0	3	18
	Pakistan Studies	A30105	2	0	2	
	Introduction To Computer	A30106	2	1	3	
	Anatomy –II	A30207	3	1	4	
	Kinesiology-II	A30208	2	1	3	
2	Physiology-II	A30209	2	1	3	
	English-II (Communication Skills)	A30210	3	0	3	17
	Islamic Studies / Ethics	A30211	2	0	2	
	Sociology	A30212	2	0	2	

DETAILS OF COURSES

ANATOMY-I

CREDIT HOURS 4(3-1)

COURSE DESCRIPTION

The focus of this course is an in-depth study and analysis of the general and regional organization of the human body. Emphasis is placed upon structure and function of human movement. A comprehensive study of human anatomy histology, embryology, with emphasis on the nervous, musculoskeletal, and circulatory systems is incorporated. Introduction to general anatomy lays the foundation of the course. Dissection and identification of structures in the cadaver supplemented with the study of charts, models, prosected materials and radiographs are utilized to identify anatomical landmarks and configurations of the upper limb

LEARNING OBJECTIVES

- Define basic technical terminology and language associated with anatomy
- Describe the structure, composition and functions of the organs in the human body
- Comprehend the concepts (& associated principles) for each general type of anatomical structures
- Demonstrate skills in the surface markings of clinically important structures, on normal living bodies and the correlation of structure with function
- Describe concepts of embryology and histology
- Identify histological slides of the human body
- Describe the interdependency and interactions of the structural and functional components of upper limb

COURSE CONTENTS

GENERAL ANATOMY AND FUNCTIONAL ANATOMY

- Terms related to position and movements
- The skin and subcutaneous tissues
- Layers of skin
- Integuments of skin
- Glands associated with hair follicle
- Microscopic picture of skin

BONES AND CARTILAGES

- Osteology
- Functions of Bones
- Classification of bones
- Parts of developing long bones
- Blood supply of bones
- Lymphatic vessels & nerve supply
- Rule of direction of nutrient foramen
- Gross structure of long bone
- Surface marking
- Cartilage
- Development of bone and cartilage
- Microscopic picture of cartilage and bone

THE MUSCLE

- Introduction
- Classification
- Histological Classification
- Functions of muscles in general
- Type of skeletal muscles

- Parts of skeletal muscle and their action
- Nomenclature.
- Microscopic picture of muscle

STRUCTURES RELATED TO MUSCLES & BONES

- Tendons
- Aponeurosis
- Fasciae
- Synovial bursae
- Tendon Synovial sheaths
- Raphaes
- Ligaments
- Condyle
- Epicondyle
- Ridge
- Tuberosity
- Tubercle
- Foramen
- Canal
- Groove
- Process
- Spur

THE JOINTS

- Introduction
- Functional classification
- Structural classification
- Structures comprising a Synovial joint
- Movements of joints
- Blood supply of Synovial joints, their nerve supply and lymphatic drainage
- Factors responsible for joint stability
- Development of joints

CARDIOVASCULAR SYSTEM

- Definition
- Division of circulatory system into pulmonary & systemic
- Classification of blood vessels and their microscopic picture
- Heart and its histology
- Function of the Heart
- Anastomosis

NERVOUS SYSTEM

- Definition
- Outline of cellular architecture
- Classification of nervous system
- Parts of the central nervous system
- Microscopic picture of cerebrum, cerebellum, spinal cord
- Functional components of nerve
- Typical spinal nerve
- Microscopic picture of nerve
- Introduction of autonomic nervous system
- Anatomy of neuromuscular junction

GENERAL HISTOLOGY

- Cell
- Epithelium
- Connective tissue
- Bone
- Muscle tissue
- Nerve tissues
- Blood vessels
- Skin and appendages
- Lymphatic organs

GENERAL EMBRYOLOGY

- Male and female reproductive organs
- Cell division and Gametogenesis
- Fertilization, cleavage, blastocyte formation and implantation of the embryo. Stages of early embryonic development in second and third week of intrauterine life
- Foetal membrane (amniotic cavity, yolk sac, allantois, umbilical cord and Placenta)
- Developmental defects

UPPER LIMB OSTEOLOGY

 Detailed description of all bones of upper limb and shoulder girdle along their musculature and ligamentous attachments.

MYOLOGY

- Muscles connecting upper limb to the axial skeletal
- Muscles around shoulder joint
- Walls and contents of axilla
- Muscles in brachial region
- Muscles of forearm
- Muscles of hand
- Retinacula
- Palmar apouenrosis
- Flexor tendon dorsal digital expansion

NEUROLOGY

- Course, distribution and functions of all nerves of upper limb
- Brachial plexus

ANGIOLOGY (CIRCULATION)

- Course and distribution of all arteries and veins of upper limb
- Lymphatic drainage of the upper limb
- Axillary lymph node
- Cubital fossa

ARTHROLOGY

- Acromioclavicular and sternoclavicular joints
- Shoulder joint
- Elbow joint
- Wrist joint
- Radioulnar joints
- Inter carpal joints
- Joints MCP and IP
- Surface anatomy of upper limb
- Surface marking of upper limb

DEMONSTRATION

- Shoulder joint, attached muscles and articulating surfaces
- Elbow joint
- Wrist joint
- Radioulnar joint
- MCP and IP joints
- Acromioclavicular joint
- Sternoclavicular joint
- Brachial plexus
- Blood supply of brain
- Structure of bones

LAB WORK

During study of this course, emphasis should be given on applied aspects, practical histology, radiological anatomy, surface anatomy and cross-sectional anatomy of the region covered in the respective semester /year

Note

The students are expected to make a practical note book. The book is a collection of evidence that learning has taken place. It is a reflective record of their achievements. The practical note book shall contain a record of the surface landmarks and cross-sectional views of parts which student would have observed

RECOMMENDED BOOKS

- 1. Gray's Anatomy by Prof. Susan Standing 41st Ed., Elsevier.
- 2. Clinical Anatomy for Medical Students by Richard S. Snell.
- 3. Clinically Oriented Anatomy by Keith Moore.
- General Anatomy by Prof.
- 5. Ghulam Ahmad, latest Ed.
- 6. Clinical Anatomy by R. J. Last, Latest Ed.
- Cunningham's Manual of Practical Anatomy by G. J. Romanes, 15th Ed., Vol-I, II and III.
- 8. The Developing Human. Clinically Oriented Embryology by Keith L. Moore, 6th Ed.
- 9. Wheater's Functional Histology by Young and Heath, Latest Ed.
- 10. Medical Histology by Prof. Laig Hussain.
- 11. NeuroaSnatomy by Richard S. Snell 7th edition.
- 12. Jancquera textbook of histology
- 13. Colourd atlas of histology by defiero
- 14. Langman's embryology
- 15. Clinicaly oriented developmental anatomy by k.l.moore

PHYSIOLOGY-I

CREDIT HOUR 3(2-1)

COURSE DESCRIPTION

The course is designed to study the function of the human body at the cellular, tissue and systems levels. The course will help students in understanding the complexities of the cells, tissues, and major organs and systems of the human body, concentrating on basic mechanisms underlying human life processes and important diseases affecting normal human function

LEARNING OBJECTIVES

- Define the terminology related to the structure and function of the human body systems
- Compare and contrast the structural and functional characteristics of the various human body cells
- Describe basic chemical concepts and principles as they apply to the structure and functioning of the blood and neuromuscular system
- Analyze the interrelationships of body organ systems, homeostasis, and the complementarity of structure and functioning of the blood and neuromuscular system

- Demonstrate advance techniques to investigate the body and interpret data to be used for diagnosis and treatment
- Define the principles behind medical instrumentation and their usage

COURSE CONTENTS

CELL PHYSIOLOGY

- Functional organization of human body
- Homeostasis
- Control systems in the body
- Cell membrane and its functions
- Cell organelles and their functions
- Genes: control and function

NERVE AND MUSCLE

- Structure and function of neuron
- Physiological properties of nerve fibers
- Action potential
- Conduction of nerve impulse
- Nerve degeneration and regeneration
- Synapses
- Physiological structure of muscle
- Skeletal muscle contraction
- Skeletal, smooth and cardiac muscle contraction
- Neuromuscular junction and transmission
- Excitation contraction coupling
- Structure and function of motor unit

BLOOD

- Composition and general functions of blood
- Plasma proteins their production and function
- Erythropoiesis and red blood cell function
- Structure, function, production and different types of haemoglobin
- Iron absorption storage and metabolism
- Blood indices, Function, production and type of white blood cells
- Function and production of platelets
- Clotting mechanism of blood
- Blood groups and their role in blood transfusion
- Complications of blood transfusion with reference to ABO & RH incompatibility
- Components of reticuloendothelial systems, gross and microscopic structure including tonsil, lymph node and spleen
- Development and function of reticuloendothelial system

LAB WORK

- Use of the microscope
- Determination of haemoglobin
- Determination of erythrocyte sedimentation rate
- Determining packed cell volume
- Measuring bleeding and clotting time
- RBC count
- Red cell indices
- WBC count
- Leukocyte count
- Prothrombin and thrombin time.
- Blood indices in various disorders

- Clotting disorders
- Blood grouping and cross matching

Note

The students are expected to make a practical note book. The book is a collection of evidence that learning has taken place. It is a reflective record of their achievements

RECOMMENDED BOOKS

- 1. Textbook of Physiology by Guyton and Hall, 12th Ed.
- 2. Review of Medical Physiology by William F. Ganong, 23rd Ed.
- 3. Physiology by Berne and Levy, 6th Ed.
- 4. Human Physiology: The Basis of Medicine by Gillian Pocock, Christopher D.Richards 4th Ed.
- 5. Physiological Basis of Medical Practice by John B. West and Taylor, 12th Ed.

KINESIOLOGY-I

CREDIT HOURS 3(2-1)

COURSE DESCRIPTION

Course covers the principles of mechanics and anatomy in relation to human movement facilitating students to apply kinesiological evaluation and treatment of muscular imbalance or derangement in their clinical practice. It consists of evaluation of muscular function and group movements of muscle in relation to force of gravity and manual resistance. By becoming familiar with the knowledge of basic mechanical and physiological mechanisms, students will be more confident and competent in using them in use of exercises to promote physical rehabilitation

LEARNING OBJECTIVES

- Define the mechanical principles and their application on the human body
- Describe concept of movement and how it occurs in body
- Demonstrate fundament position, their effects and uses
- Explore fundamental skills to differentiate between a good and bad posture and to use technique for re-education
- Develop critical thinking ability in students on how and why to select which technique in a specific case, suitable for its rehabilitation
- Describe muscular anatomy, its function against gravity and manual resistance

COURSE CONTENTS

INTRODUCTION TO KINESIOLOGY

- Definition of Physical Therapy and Rehabilitation
- Definition of kinesiology

MECHANICS

- Mechanical Principles and Mechanics of Position
- Force force system Description of units
- Gravity: Center of gravity and line of gravity
- Level of gravity
- Equilibrium
- Fixation and Stabilization
- Mechanics of movement
- Axes / Planes
 - Speed
 - Velocity
 - Acceleration
 - Momentum
 - Inertia
 - Friction
 - Lever types application in human body

Pulley - types – application in human body Angle of pull

INTRODUCTION TO MOVEMENT

- Types of movement and posture
- Patterns of movement
- Timing in movement
- Rhvthm of movement
- The nervous control of movement

STARTING POSITIONS

- Definition
- Fundamental positions
- Standing
- Kneeling
- Sitting
- Lying
- Hanging
- The pelvic tilt

POSTURE

- Inactive postures
- Active postures
- The postural mechanism
- The pattern of posture
- Principles of Re- Education
- Techniques of Re-Education
- Prevention of muscles wasting
- The initiation of muscular contraction
- Abnormal postures

MUSCLE STRENGTH AND MUSCLE ACTION

- Types of Muscles contraction
- Muscles tone
- Physiological application to postural tone
- Group action of muscles
- Overview of muscle structure
- Types of muscle work
- Range of muscle work
- Two joint muscle work
- Active and passive insufficiency
- Group movement of joints
- Muscular weakness and paralysis

LAB WORK

- Fundamentals of muscle testing
- Methods of muscle recording
- Basic muscle grading system
- Evaluation of posture
- Regional upper limb muscle testing
- Practical demonstrations of muscles work and its ranges
 - Practical demonstrations of various fundamental positions and posture analysis.

Note

The students are expected to make a practical note book. The practical note book is a collection of evidence that learning has taken place and also a reflective record of student's achievements

RECOMMENDED BOOKS

- Practical exercise therapy by Margaret Hollis 3rd Ed. illustrated, reprint, Blackwell Scientific
- 2. Brunnstrom's Clinical Kinesiology 6th Ed. By. Peggy A Houglum, Dolores B Bertoti
- 3. Clinical kinesiology and anatomy 5th Ed. by Lynn S Lippert
- 4. Joint structure and function: a comprehensive analysis 5th Ed. by: Pamela. K. Levangie and Cynthia. C. Norkin.
- 5. Muscle function testing by: Cunningham and Daniel. 2nd, illustrated
- 6. Human movement explain by kimjonas and karenbaker
- 7. The principles of exercise therapy by: M. Dena Gardiner, 4th Edition.

ENGLISH-I

FUNCTIONAL ENGLISH

CREDIT HOURS 3(3-0)

COURSE OBJECTIVES

Enhance language skills and develop critical thinking

COURSE CONTENTS

- Basics of Grammar
- Parts of speech and use of articles
- Sentence structure, active and passive voice
- Practice in unified sentence
- Analysis of phrase, clause and sentence structure
- Transitive and intransitive verbs
- Punctuation and spelling.

COMPREHENSION

Answers to questions on a given text

DISCUSSION

 General topics and every-day conversation (topics for discussion to be atthe discretion of the teacher keeping in view the level of students)

LISTENING

To be improved by showing documentaries/films carefully selected by subject teachers

TRANSLATION SKILLS

Urdu to English Paragraph writing

Topics to be chosen at the discretion of the teacher Presentation skills

Introduction

Note

Extensive reading is required for vocabulary building

RECOMMENDED BOOKS

Functional English

Grammar

- Practical English Grammar by A. J. Thomson and A. V. Martinet. Exercises 1. Third edition. Oxford University Press. 1997. ISBN 0194313492
- 2. Practical English Grammar by A. J. Thomson and A. V. Martinet. Exercises 2. Third edition. Oxford University Press. 1997. ISBN 0194313506

Writing

- 1. Writing. Intermediate by Marie-Christine Boutin, Suzanne Brinand and Francoise Grellet. Oxford Supplementary Skills. Fourth Impression 1993. ISBN 0 19 435405 7 Pages 20-27 and 35-41.
- 2. Reading/Comprehension
- 3. Reading. Upper Intermediate. Brain Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 453402 2.
- 4. Speaking.

PAKISTAN STUDIES (COMPULSORY) CREDIT HOURS 2(2-0)

COURSE OBJECTIVES

- Develop vision of historical perspective, government, politics, Contemporary Pakistan, ideological background of Pakistan.
- Study the process of governance, national development, issues arising in the modern age and posing challenges to Pakistan.

COURSE CONTENTS

HISTORICAL PERSPECTIVE

- Ideological rationale with special reference to Sir Syed Ahmed Khan, Allama Muhammad Igbal and Quaid-e-Azam Muhammad Ali Jinnah
- Factors leading to Muslim separatism

PEOPLE AND LAND

- Indus Civilization "Muslim advent
- Location and geo-physical features

GOVERNMENT AND POLITICS IN PAKISTAN

- 1947-58
- 1958-71
- 1971-77
- 1977-88
- 1988-99
- 1999 onward

CONTEMPORARY PAKISTAN

- · Economic institutions and issues
- · Society and social structure
- Ethnicity
- Foreign policy of Pakistan and challenges
- Futuristic outlook of Pakistan

RECOMMENDED BOOKS

- 1. Burki, Shahid Javed. State & Society in Pakistan, The Macmillan Press Ltd 1980.
- 2. Akbar, S. Zaidi. Issue in Pakistan's Economy. Karachi: Oxford University Press, 2000.
- 3. S. M. Burke and Lawrence Ziring. Pakistan's Foreign policy: An Historical analysis. Karachi: Oxford University Press, 1993.
- 4. Mehmood, Safdar. Pakistan Political Roots & Development. Lahore, 1994.
- 5. Wilcox, Wayne. The Emergence of Banglades., Washington: American Enterprise, Institute of Public Policy Research, 1972.
- 6. Mehmood, Safdar. Pakistan KayyunToota, Lahore: Idara-e-Saqafat-e-Islamia, Club Road, nd.
- 7. Amin, Tahir. Ethno National Movement in Pakistan, Islamabad: Institute of Policy Studies, Islamabad.
- 8. Ziring, Lawrence. Enigma of Political Development. Kent England: WmDawson& sons Ltd, 1980.
- 9. Zahid, Ansar. History & Culture of Sindh. Karachi: Royal Book Company, 1980.

- Afzal, M. Rafique. Political Parties in Pakistan, Vol. I, II & III. Islamabad: National Institute of Historical and cultural Research. 1998.
- 11. Sayeed, Khalid Bin. The Political System of Pakistan. Boston: Houghton Mifflin, 1967.
- 12. Aziz, K.K. Party, Politics in Pakistan, Islamabad: National Commission on Historical and Cultural Research, 1976.
- 13. Muhammad Waseem, Pakistan under Martial Law, Lahore: Vanguard, 1987.
- 14. Haq, Noor ul. Making of Pakistan: The Military Perspective. Islamabad: National Commission on Historical and Cultural Research, 1993.

INTRODUCTION TO COMPUTERS CREDIT HOURS: 3(2-1)

COURSE DESCRIPTION

This is an introductory course on Information and Communication Technologies. Topics include ICT terminologies, hardware and software components, the internet and World Wide Web, and ICT based applications

COURSE CONTENTS

- Basic Definitions & Concepts
- Hardware: Computer Systems & Components
- Storage Devices , Number Systems
- Software: Operating Systems, Programming and Application Software
- Introduction to Programming, Databases and Information Systems
- Networks
- Data Communication
- The Internet, Browsers and Search Engines
- The Internet: Email, Collaborative Computing and Social Networking
- The Internet: E-Commerce
- IT Security and other issues
- Project Week
- Review Week

RECOMMENDED BOOKS

- 1. Introduction to Computers by Peter Norton, 6th International Edition (McGraw HILL)
- 2. Using Information Technology: A Practical Introduction to Computer & Communications by Williams Sawyer, 6th Edition (McGraw HILL)
- 3. Computers, Communications & information: A user's introduction by Sarah E. Hutchinson, Stacey C. Swayer
- 4. Fundamentals of Information Technology by Alexis Leon, Mathewsleon Leon press.

SECOND SEMESTER

- 1. ANATOMY-II
- 2. PHYSIOLOGY-II
- 3. KINESIOLOGY-II
- 4. ENGLISH-II (COMUNICATION SKILLS)
- 5. ISLAMIC STUDIES/ETHICS
- 6. SOCIOLOGY

ANATOMY-II

CREDIT HOURS 4(3-1)

COURSE DESCRIPTION

The focus of this course is an in-depth study and analysis of the regional and systemic organization of the body. Emphasis is placed upon structure and function of human movement. A comprehensive study of human anatomy with emphasis on the nervous, musculoskeletal and circulatory systems is incorporated. Introduction to general anatomy lays the foundation of the course. Dissection and identification of structures in manikins/smart board systems supplemented with the study of charts, models, prosected materials and radiographs are utilized to identify anatomical landmarks and configurations of the lower limb, abdomen and pelvis

LEARNING OBJECTIVES

- Describe gross anatomy of neuro-musculoskeletal and circulatory system of lower limb, abdominal wall and pelvis.
- Demonstrate anatomical landmarks and configuration of the lower limb, abdominal wall and pelvis through dissection/identification of structures in the manicans / smart board systems supplemented with the study of charts, models, prosected materials, and radiographs.
- Describe major stages of embryological development of the lower limb with development of the neurological and vascular supplies to the lower limb.

COURSE CONTENTS

LOWER LIMB OSTEOLOGY

Detailed description of all bones of lower limb and pelvis along with their markings

MYOLOGY

- Muscles of gluteal region
- Muscles around hip joint
- Muscles of thigh
- Muscles of lower leg and foot

NEUROLOGY

- Course, distribution, supply of all nerves of lower limb and gluteal region
- Lumbosacral plexus

ANGIOLOGY

Course and distribution of all arteries, veins and lymphatic drainage of lower limb

ARTHROLOGY

- Pelvis
- Hip joint
- Knee joint
- Ankle joint
- Joints of the foot
- Surface Anatomy of lower limb

Surface Marking of lower limb

ABDOMEN

ABDOMINAL WALL

- Structures of anterior abdominal wall: superficial and deep muscles
- Structure of rectus sheath
- Structures of Posterior abdominal wall
- Lumbar spine (vertebrae)
- Brief description of viscera

PELVIS

- Brief description of anterior, posterior and lateral walls of the pelvis
- Inferior pelvic wall or pelvic floor muscles
- Sacrum
- Brief description of perineum
- Nerves of perineum

EMBRYOLOGY

- Introduction to developing human
- Gametogenesis, Spermatogenesis, Oogenesis
- Fertilization and phases of fertilization
- Germ layers
- Development of limbs, Muscular system and Nervous system

LAB WORK

During study of Gross Anatomy, emphasis should be given on applied aspect, radiological anatomy, surface anatomy and cross-sectional anatomy of the region covered in the respective semester /year.

Note

The students are expected to make a practical note book. The book is a collection of evidence that learning has taken place. It is a reflective record of their achievements

RECOMMENDED BOOKS

- 1. Gray's Anatomy by Prof. Susan Standing 41st Ed., Elsevier.
- 2. Clinical Anatomy for Medical Students by Richard S. Snell.
- 3. Clinically Oriented Anatomy by Keith Moore.
- 4. General Anatomy by Prof. Ghulam Ahmad, latest Ed.
- 5. Clinical Anatomy by R. J. Last, Latest Ed.
- 6. Cunningham's Manual of Practical Anatomy by G. J. Romanes, 15th Ed., Vol-I, II and III.
- 7. The Developing Human. Clinically Oriented Embryology by Keith L. Moore, 6th Ed.
- 8. Wheater's Functional Histology by Young and Heath, Latest Ed.
- 9. Medical Histology by Prof. Laig Hussain.
- 10. Neuroanatomy by Richard S. Snell 7th edition.
- 11. Jancquera textbook of histology
- 12. Colourd atlas of histology by defiero
- 13. Langman's embryology
- 14. Clinicaly oriented developmental anatomy by k.l.moore

PHYSIOLOGY-II

CREDIT HOURS 3(2-1)

COURSE DESCRIPTION

The course is designed to study the function of the human body at the molecular, cellular, tissue and systems levels. These topics are addressed by a consideration of the cardiovascular, gastrointestinal, and

endocrinological systems. The integrative nature of physiological responses in normal function and disease is stressed throughout the course

LEARNING OBJECTIVES

- Describe functions of gastrointestinal tract, endocrinology and cardiovascular system
- Describe physiology at the molecular, metabolic/cellular, tissue and systems levels
- Differentiate the physiological responses in normal function and disease stages

COURSE CONTENTS

GASTROINTESTINAL TRACT

- General function of gastrointestinal tract
- Enteric nervous system
- Control of gastrointestinal mobility and secretions
- Mastication
- Swallowing: mechanism and control
- Function, motility and secretions of stomach
- Function, motility and secretions of small intestine
- Function, motility and secretions of large intestine
- Function of GIT hormones
- Mechanism of vomiting and its control pathway
- Defecation and its control pathway
- Functions of liver
- Functions of, gallbladder and bile in digestion
- Endocrine & exocrine pancreas and functions of pancreas in digestion
- Dysphagia
- Physiological basis of acid peptic disease

CARDIOVASCULAR SYSTEM

- Heart and circulation
- Function of cardiac muscle
- Cardiac pacemaker and cardiac muscle contraction
- Cardiac cycle
- ECG: recording and interpretation
- Common arrhythmias
- Types of blood vessels and their function
- Haemodynamics of blood flow (local control systemic circulation its regulation and control).
 Peripheral resistance its regulation and effect on circulation
- Arterial pulse
- Blood pressure and its regulation
- Cardiac output and its control
- Heart sounds and murmurs Importance in circulation and control of venous return.
- Coronary circulation
- Splanchnic, pulmonary and cerebral circulation
- Triple response and cutaneous circulation

ENDOCRINOLOGY

- Classification of endocrine glands
- Mechanism of action
- Feedback and control of hormonal secretion
- Functions of the hypothalamus
- Hormones secreted by the anterior and posterior pituitary and their mechanism of action and function.

- Function of the thyroid gland
- Function of the parathyroid gland
- Calcium metabolism and its regulation
- Secretion and function of calcitonin
- Hormones secreted by the adrenal cortex and medulla, and their function and mechanism of action
- Endocrine functions of the pancreas and control of blood sugar
- The endocrine functions of the kidney and Physiology of growth.

LAB WORK

- Clinical significance of cardiac cycle, correlation of ECG and heart sounds
- Examination of arterial pulses
- Arterial blood pressure
- Effects of exercise and posture on blood pressure
- Cardiopulmonary resuscitation (to be coordinated with the department of medicine)

Note

The students are expected to make a sketch book. The sketch book is a collection of evidence that learning has taken place. It is a reflective record of achievements

RECOMMENDED BOOKS

- 1. Textbook of Physiology by Guyton and Hall, 12th Ed.
- 2. Review of Medical Physiology by William F. Ganong, 23rd Ed.
- 3. Physiology by Berne and Levy, 6th Ed.
- 4. Human Physiology: The Basis of Medicine by Gillian Pocock, Christopher D.Richards 4th Ed.
- 5. Physiological Basis of Medical Practice by John B. West and Taylor, 12th Ed.

KINESIOLOGY-II

CREDIT HOURS 3(2-1)

COURSE DESCRIPTION

The course covers the types of human motions in relation to axes and planes. It further explores the interrelationship among kinematic variables and motion analysis

LEARNING OBJECTIVES

- Describe the ROM and types of movements & exercises.
- Differentiate among agonists, antagonists, and synergists integrating the knowledge learned with human motion occurring during daily activities.
- Demonstrate relaxation techniques, derived positions and effective use of walking aids.
- Demonstrate coordinated and incoordinated movements

COURSE CONTENTS

TYPES OF MOVEMENT & EXERCISES

- Voluntary & involuntary movements
- Active and Passive movements
- Classification & techniques of free exercises
- The principles, techniques and effects of assisted exercises
- The principles, techniques and effects of assisted resisted exercises
- The principles, types, techniques and effects of resisted exercises
- Variation of the power of the muscles in different parts of their range
- Progressive Resistance Exercise
- Reflex movement
- The reflex arc
- The stretch reflex
- The righting reflexes
- The postural reflexes

Effects and uses of reflex movement

PASSIVE MOVEMENT

- The principles, types, techniques and effects of passive exercises
- Definition of Passive manual mobilization and manipulations
- Controlled sustained stretching, Principles and Effects and uses

RELAXATION

- Definition
- Muscle tone
- Postural tone
- Voluntary movement
- Mental attitudes
- Degrees of relaxation
- Pathological tension in the muscles
- Technique
- General relaxation
- Local relaxation

DERIVED POSITIONS

- Purpose of derived positions
- Positions derived from standing by: alteration of arms, legs and trunk.
- Positions derived from kneeling
- Positions derived from sitting by: alteration of the legs& by alteration of trunk
- Positions derived from lying, by alteration of arms and by alteration of the legs
- Positions derived from hanging
- Other positions in which some of the weight is taken on the arms

SUSPENSION THERAPY

- Suspension application
- Suspension concept of inclined planes
- The fixed point suspension
- Supporting rope and its types
- Sling and its types
- Type of suspension: axial &vertical
- Methods, techniques of suspension: upper limb & lower limb
- Suspension effect on muscle work and joint mobility

NEUROMUSCULAR CO-ORDINATION

- Coordinated movement
- Group action of muscles
- Nervous control
- Inco-ordination
- Re-Education
- Frenkel's exercises.

WALKING AIDS

- Crutches
- Sticks
- Tripod or Quadra pod
- Frames

LAB WORK

- Demonstrations of the techniques of active, passive movements
- Demonstrations of relaxation procedures
- Demonstrations of various derived positions
- PRE program
- Manual muscle testing Regional Lower limb muscle testing

Note

The students are expected to make a practical note book. The book is a collection of evidence that learning has taken place. It is a reflective record of their achievements

RECOMMENDED BOOKS

- 1. Practical exercise therapy by Margaret Hollis 3rd Ed. illustrated, reprint, Blackwell Scientific
- 2. Brunnstrom's Clinical Kinesiology 6th Ed. By. Peggy A Houglum, Dolores B Bertoti
- 3. Clinical kinesiology and anatomy 5th Ed. by Lynn S Lippert
- 4. Joint structure and function: a comprehensive analysis 5th Ed. by: Pamela. K. Levangie and Cynthia. C. Norkin.
- 5. Muscle function testing by: Cunningham and Daniel. 2nd, illustrated
- 6. Human movement explain by kimjonas and karenbaker
- 7. The principles of exercise therapy by: M. Dena Gardiner, 4th Edition.

ENGLISH II (COMMUNICATION SKILLS) CREDIT HOURS 3(3-0)

COURSE OBJECTIVES

Enable the students to meet their real life communication needs.

COURSE CONTENTS

Paragraph writing

Practice in writing a good, unified and coherent paragraph

Essay writing

Introduction

CV and job application

- Translation skills
- Urdu to English

Study skills

- Skimming and scanning, intensive and extensive, and speed reading
- Summary and précis writing and comprehension

Academic skills

Letter/memo writing, minutes of meetings, use of library and internet

Presentation skills

Personality development (emphasis on content, style and pronunciation)

Note

Documentaries to be shown for discussion and review

RECOMMENDED BOOKS

Communication Skills

Grammar

1. Practical English Grammar by A. J. Thomson and A. V. Martinet. Exercises 2. Third edition. Oxford University Press 1986. ISBN 0 19 431350 6.

Writing

- 1. Writing. Intermediate by Marie-ChrisitineBoutin, Suzanne Brinand and Francoise Grellet. Oxford Supplementary Skills. Fourth Impression 1993. ISBN 019 435405 7 Pages 45-53 (note taking).
- Writing. Upper-Intermediate by Rob Nolasco. Oxford Supplementary Skills. Fourth Impression 1992. ISBN 0 19
 435406 5 (particularly good for writing memos, introduction to presentations, descriptive and argumentative
 writing).

Reading

- Reading. Advanced. Brian Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1991. ISBN 019 453403 0.
- 2. Reading and Study Skills by John Langan
- 3. Study Skills by RiachardYorky.

ISLAMIC STUDIES / ETHICS

CREDIT HOURS 2(2-0)

COURSE OBJECTIVES

- To provide Basic information about Islamic Studies
- To enhance understanding of the students regarding Islamic Civilization
- To improve Students skill to perform prayers and other worships
- To enhance the skill of the students for understanding of issues related to faith and religious life

COURSE CONTENTS

INTRODUCTION TO QURANIC STUDIES

- Basic Concepts of Quran
- History of Quran
- Uloom-ul –Quran.

STUDY OF SELECTED TEXT OF HOLLY QURAN

- Verses of Surah Al-Baqra Related to Faith (Verse No-284-286)
- Verses of Surah Al-Huirat Related to Adab Al-Nabi (Verse No-1-18)
- Verses of Surah Al-Mumanoon Related to Characteristics of faithful (Verse No-1-11)
- Verses of Surah al-Furgan Related to Social Ethics (Verse No.63-77)
- Verses of Surah Al-Inam Related to Ihkam (Verse No-152-154).

STUDY OF SELECTED TEXT OF HOLLY QURAN

- Verses of Surah Al-Ihzab Related to Adab al-Nabi (Verse No.6,21,40,56,57,58)
- Verses of Surah Al-Hashar (18,19,20) Related to thinking, Day of Judgment
- Verses of Surah Al-Saf Related to Tafakar, Tadabar (Verse No-1,14).

SEERAT OF HOLY PROPHET (S.A.W) I

- Life of Muhammad Bin Abdullah (Before Prophet Hood)
- Life of Holy Prophet (S.A.W) in Makkah
- Important Lessons derived from the life of Holy Prophet in Makkah.

SEERAT OF HOLY PROPHET (S.A.W) II

- Life of Holy Prophet (S.A.W) in Madina
- Important Events of Life Holy Prophet in Madina
- Important Lessons derived from the life of Holy Prophet in Madina.

INTRODUCTION TO SUNNAH

- Basic Concepts of Hadith
- History of Hadith
- · Kinds of Hadith
- Uloom—ul-Hadith
- · Sunnah & Hadith

· Legal Position of Sunnah.

SELECTED STUDY FROM TEXT OF HADITH

INTRODUCTION TO ISLAMIC LAW & JURISPRUDENCE

- Basic Concepts of Islamic Law & Jurisprudence
- History & Importance of Islamic Law & Jurisprudence
- Sources of Islamic Law & Jurisprudence
- Nature of Differences in Islamic Law
- Islam and Sectarianism.

ISLAMIC CULTURE & CIVILIZATION

- Basic Concepts of Islamic Culture & Civilization
- Historical Development of Islamic Culture & Civilization
- Characteristics of Islamic Culture & Civilization
- Islamic Culture & Civilization and Contemporary Issues.

ISLAM & SCIENCE

- Basic Concepts of Islam & Science
- Contributions of Muslims in the Development of Science
- Quranic& Science.

ISLAMIC ECONOMIC SYSTEM

- Basic Concepts of Islamic Economic System
- Means of Distribution of wealth in Islamic Economics
- Islamic Concept of Riba
- Islamic Ways of Trade & Commerce.

POLITICAL SYSTEM OF ISLAM

- · Basic Concepts of Islamic Political System
- Islamic Concept of Sovereignty
- · Basic Institutions of Govt. in Islam.

ISLAMIC HISTORY

- · Period of Khlaft-E-Rashida
- Period of Ummayyads
- Period of Abbasids

SOCIAL SYSTEM OF ISLAM

- Basic Concepts of Social System of Islam
- Elements of Family
- · Ethical Values of Islam.

RECOMMENDED BOOKS

- 1. Hameed ullah Muhammad, "Emergence of Islam", IRI, Islamabad
- 2. Hameed ullah Muhammad, "Muslim Conduct of State"
- 3. Hameed ullah Muhammad, Introduction to Islam
- 4. Mulana Muhammad Yousaflslahi,"
- 5. Hussain Hamid Hassan, "An Introduction to the Study of Islamic Law" leaf Publication Islamabad, Pakistan.
- 6. Ahmad Hasan, "Principles of Islamic Jurisprudence" Islamic Research Institute, International Islamic University, Islamabad (1993)
- 7. Mir Waliullah, "Muslim Jrisprudence and the Quranic Law of Crimes" Islamic Book Service (1982)
- H. S. Bhatia, "Studies in Islamic Law, Religion and Society" Deep & Deep Publications, New Delhi (1989)
- 9. Dr. Muhammad Zia-ul-Haq, "Introduction to Al Sharia Al Islamia" Allama Iqbal Open University, Islamabad (2001)

SOCIOLOGY CREDIT HOURS: 2(2-0)

COURSE DESCRIPTION

The course focuses at providing basic concepts and models of health sciences. The psycho-socio and cultural assessment of health seeking behavioral patterns and the role of therapeutic management group will be examined. The indigenous healing system and contemporary medical system will be studied. It makes them realize the importance of the relationship of the physical therapist and the patient

LEARNING OBJECTIVES

- Comprehend basic knowledge and concepts of sociology
- Describe relationship among impact of group, culture and environment on the behavior and health of patients
- Describe social aspects of health & illness and emphasize importance of the relationship of the physical therapist with patient, along critical perspectives of contemporary issues in health

COURSE CONTENTS

INTRODUCTION

- Medical Sociology, and the field of medical sociology
- Contribution of sociology to medicine.

HEALTH AND DISEASE

- Social definition of illness
- Health and disease as deviant behavior
- Social cultural causes of disease

SOCIOLOGICAL PERSPECTIVES ON HEALTH & ILLNESS

- Functionalist Approach
- Conflict Approach
- Interactionist Approach
- Labeling Approach

ILLNESS BEHAVIOR AND PERCEPTIONS OF ILLNESS

- Illness Behavior
- Cultural Influences on Illness Behavior
- Sociological and Demographic Influences
- Lay Beliefs About Health and Illness
- Self medication
- Sick Role

SOCIAL DETERMINANTS OF HEALTH

- The Social Gradient
- Stress
- Early Life
- Life Expectancy
- Social support networks
- Education and literacy
- Employment/Working conditions
- Social environments
- Addiction
- Food
- Transport

PATIENT AND PHYSICAL THERAPIST

- Physical Therapist s view of disease and the patient
- Patient's perspective of illness
- Patient Physical Therapist relationship
- Patient-nurses relation

SOCIOLOGY OF MEDICAL CARE

- Hospitals
- Origin and development.
- Hospitals as social organization: problems of Quackery.
- Interpersonal relationship in medical settings.
- Mental illness in sociological perspective.
- Complementary & alternative Medicine (CAM)

RECOMMENDED BOOKS

- 1. Sociology for Physiotherapists(2006) by Bid DibyendunarayanJaypee publisher
- 2. A.P Dixit (2005) Global Hiv/Aids Trends, Vista International Publications house New Delhi;
- 3. Diarmuid O Donovan (2008) The State of Health Atlas University of California Press;
- 4. G.C. Satpalhy (2003) Prevention of Hiv/Aids & Drug abuse, isha Books, New Delhi.
- 5. Global Health Challenges for Human Security (ed.) Lincoln Chen et el. Global Equity. UK 2003.
- 6. Jai P Narain (2004) Aids in Asia the challenge a head, Sage Publications New Delhi;
- 7. Julia A Ericksen (2008) Taking charge of Breast Cancer University of California Press;
- 8. Meena Sharma (2006) Aids, Awareness Through Community Participation Kalpaz Publications Delhi;
- 9. P Dixit (2005) Global HIV/AIDS Trends, Vista International Publishing House Delhi 110053;
- Rose Weitz (2004) The Sociology of health, Illness & health care a critical approach Thomson wads worth.
- 11. RubinaSehgal(2004)The Trouble Times; Sustainable Development in the age of extreme. Islamabad.

ACADEMIC CALENDAR OF YEAR 1

Semester -I

Semester Plan DPT Batch 2022 Semester –I				
Semester Work				
Semester start date		13 th Mar 2023		
Midterm Exams		8 th May 2023 to 13 th May 2023		
Final viva 1 week		10 th July 2023 till 15 th July 2023		
Semester end date	15 th July 2023			
(Examination process)				
Prep Leave	2 weeks	16 th July 2023 till 30 th July 2023		
Terminal examination	2 weeks	31st July 2023 till 12th Aug 2023		

Semester-II

Semester Plan DPT Batch 2022 Semester –II					
Semester Work					
Semester start date		15 TH Aug 2023			
Midterm Exams		9 th Oct till 14 th Oct 2023			
Final viva 1 week		11 th Dec till 16 th Dec 2023			
Semester end date		16 th Dec 2023			
(Exam	nination proc	ess)			
Prep Leave	2 weeks	17 th Dec till 31 st Dec 2023			
Terminal examination	2 weeks	1 st Jan 2024 till 14 th Jan 2024			
Retake examination of Semester 1	15 th Jan 2024 to 25 th Feb 2024				
Retake examination of Semester II					