MALLA REDDY VISHWAVIDYAPEETH

SCHOOL OF ALLIED HEALTHCARE SCIENCES & TECHNOLOGY

Suraram X Roads, Jeedimetla, Hyderabad-500055

Website: https://mrvv.edu.in/

Program:

Bachelor of Science (BSc.)

Physician Associate Studies (BPA)

2025

MALLA REDDY VISHWAVIDYAPEETH

SCHOOL OF ALLIED HEALTHCARE SCIENCES & TECHNOLOGY

Bachelor of Physician Associate Studies (BPA)

VISION

1. To develop competent and compassionate healthcare professionals.
2. To promote quality patient care and clinical excellence.
3. To encourage lifelong learning and evidence-based practice.
4. To contribute to community health and healthcare system improvement.

MISSION

1. To provide strong theoretical and clinical training in medical sciences.
2. To develop clinical skills, communication, and professionalism.
3. To promote ethical practices and patient-centered care.
4. To prepare graduates for team-based healthcare delivery.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

1. Graduates will become skilled physician associates in clinical settings.
2. Graduates will apply clinical knowledge for patient care and diagnosis.
3. Graduates will demonstrate professionalism, ethics, and communication skills.
4. Graduates will engage in continuous learning and career development.

PROGRAM OUTCOMES (POs)

1. Apply medical knowledge and clinical skills in patient care.
2. Perform patient assessment, diagnosis, and basic management.
3. Demonstrate effective communication and teamwork in healthcare.
4. Practice with ethical responsibility and patient safety.

PROGRAM SPECIFIC OUTCOMES (PSOs)

1. Perform clinical procedures and assist in diagnosis and treatment.
2. Support physicians in emergency, critical care, and routine care.
3. Apply pharmacological and therapeutic knowledge safely.
4. Participate in preventive, promotive, and rehabilitative healthcare.

COURSE OUTCOMES (COs)

1. Understand basic and clinical medical sciences concepts.
2. Demonstrate clinical examination and procedural skills.
3. Interpret laboratory and diagnostic investigations.
4. Apply clinical reasoning and decision-making in patient care.

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

MALLA REDDY VISHWAVIDYAPEETH

SCHOOL OF ALLIED HEALTHCARE SCIENCES & TECHNOLOGY

Bachelor of Physician Associate Studies (BPA)

COURSE STRUCTURE

I year I semester

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Human Anatomy - I	4	-	-	4	30	70	100
2		Human Physiology - I	4	-	-	4	30	70	100
3		Bio-chemistry	4	-	-	4	30	70	100
4		Sociology	2	-	-	2	30	70	100
5		English and Communication Skills	2	-	-	2	30	70	100
6		Basic Computers	1	-	2	2	30	70	100
7		Human Anatomy - I Practical	-	-	4	2	30	70	100
8		Human Physiology - I Practical	-	-	4	2	30	70	100
9		Environmental Awareness	2	-	-	2	100	-	100
TOTAL			19	-	10	24	340	560	900

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

I year II semester

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Human Anatomy - II	4	-	-	4	30	70	100
2		Human Physiology - II	4	-	-	4	30	70	100
3		Molecular Biology	1	-	2	2	30	70	100
4		Microbiology	3	-	2	4	30	70	100
5		Pathology	2	-	2	3	30	70	100
6		Health Psychology	2	-	-	2	30	70	100
7		Clinical Posting	-		6	3	100		100
8		Human Anatomy – II Practical	-	-	4	2	30	70	100
9		Human Physiology – II Practical	-	-	2	1	30	70	100
10		Stress Management	1	-	-	1	100	-	100
TOTAL			17	-	18	26	440	560	1000

MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be University)

II year III semester

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		General Medicine - I	2	-	1	3	30	70	100
2		ENT , Opthalmology & Dermatology	2	-	1	3	30	70	100
3		Basics of Surgery	2	-	1	3	30	70	100
4		Pharmacology & Toxicology - I	2	-	1	3	30	70	100
5		Introduction to Healthcare Delivery System in India	2	-	-	2	30	70	100
6		Medical Law and Ethics	3	-	-	3	30	70	100
7		Clinical posting	-	-	4	4	100	-	100
8		Soft Skills Development	1	-	-	1	100	-	100
TOTAL			14		8	22	380	420	800

II year IV semester

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		General Medicine - II	2	-	1	3	30	70	100
2		Advanced Surgery	2	-	1	3	30	70	100
3		Pharmacology & Toxicology - II	2	-	1	3	30	70	100
4		Medical Communication	1	-	1	2	30	70	100
5		Community Medicine & Clinical Research - I	2	-	1	3	30	70	100
6		Clinical posting	-	-	5	5	100	-	100

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

7		**Health and Well-being**	1	-	-	1	100	-	100
TOTAL			**10**	**-**	**10**	**20**	**350**	**350**	**700**

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

III year – V semester

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Emergency Medicine	3	-	1	4	30	70	100
2		Paediatrics	3	-	1	4	30	70	100
3		Community Medicine	2	-	-	2	30	70	100
4		Introduction to Health Care Managment	1	-	-	1	30	70	100
5		Community Medicine and Clinical Research - II	2	-	1	3	30	70	100
6		Clinical Posting	-	-	6	6	100	-	100
7		Interpersonal Communication	1	-	-	1	100	-	100
TOTAL			12	-	9	21	350	350	700

III year – VI semester

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Non – Communicable Diseases	1	-	1	2	30	70	100
2		Geriatrics	2	-	1	3	30	70	100
3		Obstetrics & Gynaecology	2	-	1	3	30	70	100
4		Biostatistics and introduction to research methodology	2	-	-	2	30	70	100
5		Critical Care	1	-	1	2	30	70	100
6		Community Medicine & Clinical Research - III	2		1	3	30	70	100
7		Clinical Posting	-	-	5	5	100	-	100
8		Art of Being a Better Person	1	-	-	1	100	-	100
TOTAL			11		10	21	380	420	800

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

IV year – VII semester

Course Code	Course Title	Credits/Week			Hours/Semester			Assesments		Total
		L	P	C	L	T/P	Total	INT	EXT	
	Internship	2	20	22	30	900	930	-	100	100
	Project work		06	06		270	270		100	100
Total		**2**	**26**	**28**	**30**	**1170**	**1200**	**-**	**200**	**200**

IV year – VIII semester

Course Code	Course Title	Credits/Week			Hours/Semester			Assesments		Total
		L	P	C	L	T/P	Total	INT	EXT	
	Internship	2	20	22	30	900	930	-	100	100
	Project work		06	06		270	270		100	100
Total		**2**	**26**	**28**	**30**	**1170**	**1200**	**-**	**200**	**200**

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Undergraduate program:

S. No	Course	Duration	Eligibility for admission
1	Bachelor of Physician Associate	4 years	Intermediate Bi.P.C (mathematics optional)/ Diploma (2yrs) holders (can directly be enrolled into 2nd year) /10+2 or equivalent/

1.1 Medium of Instruction:

English shall be the medium of instruction for all the subjects of study and for examination of the course.

1.2 Duration of the course:

- 4 years
- Total number of hours – 6000
- Total Credits: 216

1.3 Examination Regulations:

1.3.1 Attendance:

A candidate has to secure minimum 80% attendance in overall with at least-

1. 80% attendance in theoretical
2. 80% in Skills training (practical)

for qualifying to appear for the final examination. No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition, etc.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

1.3.2 Assessment:

- **Cognitive Assessment**
  1. Structured log book
  2. Viva-voce examination.
  3. Structured case presentation
  4. Formative assessment
  5. Summative assessment
  6. Case presentation

- Psychomotor Assessment
    1. Objective Structured Clinical Examination (OSCE)
    2. Objective Structured Practical Examination (OSPE)
    3. Mini Clinical Evaluation Exercise (Mini-CEX)
    4. Direct Observation of Procedural Skills (DOPS)
    5. Simulation-based assessment

Internal Assessments:

a) Regular periodic assessment shall be conducted throughout the course. Each student in a semester is assessed internally twice by conducting one hour exam with maximum of 20 marks. Additionally, student also undergo a continuous assessment for maximum of 10 marks. The internal assessment shall carry a weightage of 50% and will contribute 50% to the final assessment at the end of the semester

b) Exam patterns for internal assessment in each semester will be

1. Each of two internal examinations shall include a section of ten very short answer questions each carrying one mark, totaling to ten marks. Two long answer questions each carrying 5 marks, totaling to 10 marks. Thus, a total of 20 marks for each internal examination with the duration of 1 hour time

2. Continuous assessment of the students shall be carried out throughout the semester. This will include evaluation of overall attendance, classroom performance, student behavior, participation in extracurricular activities, and other relevant aspects. Continuous assessment shall carry a weightage of 10 marks.

3. Thus, a total of 50 marks for the internal examination. (20+20+10=50 marks). A candidate should secure a minimum of 40% marks in the internal assessment in each subject to be eligible to appear for the University examination.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

4. Candidates should score a minimum of 40% marks in theory and practical internal assessment examination separately to be eligible to appear in the University exam in that subject.

5. For value added courses, only internal examination will be conducted. The assessment comprised of five assignments/presentations/case presentations each carrying 10 (i.e., 5x10=50 marks). Final written examination (1.5 h) will be for 50 marks with 5 questions each carrying 10 marks (5x10=50 marks). The minimum pass is 40% marks.

1.3.2 University Examinations (External):

a) University Examination shall be conducted at the end of every semester.

b) A candidate who meets the requirement of attendance and internal assessment marks, as stipulated by the University shall be eligible to appear for the University Examination.

c) Examination will be of 3 hours duration (for theory). The exam pattern for those subjects (100 marks) will be

1. Very short answer questions – 15 each carrying 2 marks (15 x 2 M = 30 marks)
2. Short answer questions, 5 questions each carrying 8 marks (5 x 8 M = 40 marks)
3. Three Essay questions ,out of which two questions need to be answered, each carrying 15 marks (2 x 15 M=30 marks). Thus, a total of 100 marks.

1.3.3. The question pattern for the practical examination

(a) Spotters/major practical /minor practical / Viva / practical record.

1.3.4. Pass Criteria

The minimum pass marks for internal assessment are 40% and for the University Examination is 50% i.e. a student should score a total of 50% (adding the internal and external examination) to pass in each subject.

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

SEMESTER - I

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Human Anatomy - I	4	-	-	4	30	70	100
2		Human Physiology - I	4	-	-	4	30	70	100
3		Bio-chemistry	4	-	-	4	30	70	100
4		Sociology	2	-	-	2	30	70	100
5		English and Communication Skills	2	-	-	2	30	70	100
6		Basic Computers	1	-	2	2	30	70	100
7		Human Anatomy - I Practical	-	-	4	2	30	70	100
8		Human Physiology - I Practical	-	-	4	2	30	70	100
9		Environmental Awareness	2	-	-	2	100	-	100
TOTAL			19	-	10	24	340	560	900

HUMAN ANATOMY-1 L/T/P/C 4/-/-/4

MALLA REDDY VISHWAVIDYAPEETH

Learning Objectives:

- Develop a clear understanding of basic human anatomy and Histology, including structure and organization of tissues, organs, and systems.
- Identify and describe anatomical structures of the upper extremity, thorax, and major body systems, along with their functions and relationships.
- Apply anatomical knowledge to clinical contexts, especially in understanding organ systems relevant to patient care and dialysis practice.

Learning Outcomes:

- Demonstrate the ability to recognize and explain the structure and function of major organs and systems such as the Cardiovascular System and Urinary System.
- Correlate anatomical and histological knowledge with clinical procedures and patient management in healthcare settings.
- Exhibit competency in identifying anatomical landmarks and understanding their relevance in diagnostic and therapeutic procedures.

UNIT-I (12 hours)

GENERAL ANATOMY AND HISTOLOGY

General Anatomy:

- Fascia
- Muscles
- Bones
- Joints
- Vessels
- Nerve

General Histology:

- Epithelial
- Connective tissue
- Muscle
- Bone and cartilage
- Nerves and vessels
- Embryology

UNIT-II (12 hours)

UPPER EXTREMITY:

- Osteology: Clavicle, Scapula, Humerus, Radius, Ulna, Carpals, Metacarpals, Phalanges.
- Muscles: Origin, insertion, nerve supply, and actions.

UNIT-3 (12 hours)

UPPER EXTREMITY:

- Joints: Shoulder girdle, shoulder joint, elbow joints, radioulnar joint, wrist joint, and joints of the hand.
- Breast, pectoral region, axilla, cubital fossa, arch of the hand
- Brachial plexus, nerves of the upper extremity
- Blood vessels and lymphatic drainage

UNIT – 4 (12 hours)

CARDIOVASCULAR&RESPIRATORYANATOMY

- Thoracic wall
- Mediastinum
- Heart: Anatomy of heart, blood supply, nerve supply, conducting system, conducting System and major blood vessels
- Lungs: Anatomy of lungs, bronchial tree, pleura, bronchopulmonary segments, blood Supply, and nerve supply

- Diaphragm: Origin, insertion, nerve supply, and action, openings in the diaphragm.
- Intercostal muscles and accessory muscles of respiration: Origin, insertion, nerve supply, and action
- Ribs and sternum

UNIT-V (12 hours)

SYSTEMICANATOMY

1. Digestive system:
   List the parts of the digestive system
   Anatomy of the stomach, liver, gallbladder, spleen, pancreas, and intestines.
2. Urinary system:
   Anatomy of the kidney, urinary bladder
3. Endocrine system:
   Position and hormones secreted by each organ
4. Genital system:
   Male organs and female organs

RECOMMENDED TEXT BOOKS

1. Human Anatomy-Snell
2. Anatomy- Chaurasia, Volume, and III
3. Neuroanatomy-Inderbir Singh
4. Human Anatomy- Kadasne, Volume, and III
5. Neuroanatomy— Vishrsam Singh
6. Human Anatomy- Datta

MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be University)

HUMANPHYSIOLOGY–I

L/T/P/C

4/-/-/4

Learning Objectives:

- Understand the fundamental principles of human physiology, including Homeostasis, cell function, and mechanisms of transport across cell membranes.
- Describe the structure and functions of major systems such as the Cardiovascular System, Respiratory System, and blood physiology.
- Explain physiological processes related to nerve conduction, muscle contraction, and exercise, and their role in maintaining normal body function.

Learning Outcomes:

- Demonstrate the ability to explain normal physiological mechanisms of the body, including circulation, respiration, and neuromuscular activity.
- Apply knowledge of physiological principles to interpret basic clinical conditions such as Anemia, blood pressure variations, and respiratory changes.
- Correlate physiological responses during rest and exercise, enabling understanding of patient monitoring and care in clinical settings.

UNIT-I (12 hours)

GENERALPHYSIOLOGY

Cell:

- Structure of the cell membrane
- Fluid Mosaic Model
- Lipid bilayer
- Functions of the cell membrane

MALLA REDDY VISHWAVIDYAPEETH (Deemed-to-be University)

a)Transport across the cell membrane

- Basic mechanism of transport
- Channel proteins
- Carrier proteins
- Methods of transport
- Passive transport
- Active transport

b) Body fluids

- Intracellular fluid
- Extracellular fluid
- Body electrolytes

- Regulation of body fluid volume

Homeostasis

- Regulation of body function
- Homeostatic regulatory mechanism

BLOOD

BLOOD:

- Composition of blood & its volume
- Plasma
- Hemopoietin
- Composition
- Plasma protein
- Erythrocytes
- Normal count
- Structure of RBC (shape & size)
- Functions of RBC
- Hemoglobin (Normal Value, Fate, Function)
- Anemia & polycythemia
- ESR & PCV
- Leukocytes
- Classification
- Functions of leukocytes
- Platelets
- Normal count
- Functions of thrombocytes
- Blood Coagulation
- Bleeding time & clotting time
- Blood group
- ABO system
- Landsteiner's law
- ABO incompatibility
- Rh system
- Rhincompatibility & erythroblastosis fatalist
- Blood transfusion
- Collection & storage of blood
- Precautions
- Cross-matching
- Hazards of blood transfusion

NERVE:

NERVE:

- Structure of a neuron

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

- Classification of neurons
- Electrical activity of a neuron
- Resting membrane potential
- Action potential
- Propagation of nerve impulse
- Properties of nerve fibres
- Neuroglia-Types & functions
- Nerve Injury
- Types of Nerve Injury
- Effect of Nerve Injury
- Regeneration of damaged nerve fibre

UNIT-II (12 hours)

MUSCLE PHYSIOLOGY

- Classification
- Properties of skeletal muscle
- Structure of skeletal muscle
- Sarcomere
- Sarcotubular system
- Neuromuscular junction &disease affecting it
- Excitation-Contraction coupling
- Mechanism of muscle contraction
- Functions of skeletal muscle
- Types of muscle contractions
- Red & white muscles
- Rigor mortis, muscular dystrophy, altered muscle tone, muscle cramp, atrophy, EMG

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT-III (12 hours)

CARDIOVASCULAR SYSTEM

- Structure of heart & blood vessels
- Properties of cardiac muscle
- Origin & spread of cardiac pulse
- Cardiac cycle & heart sounds
- Cardiac output
- Related terms
- Regulation of cardiac output
- Circulatory shock
- Pulse & Heart rate and its regulation
- Blood pressure
- Definitions
- Factors controlling & Influencing BP

- Regulation of BP
- Regional circulation
- Coronary circulation
- Cerebral circulation
- Normal ECG

UNIT-IV (12 hours)

RESPIRATORY SYSTEM

- Introduction, structure & function of RS
- Upper respiratory tract
- Lower respiratory tract
- Respiratory membrane
- Mechanism of breathing
- Mechanisms of Breathing
- Respiratory pressure change
- Compliance
- Surfactant
- Respiratory volumes & capacities
- Pulmonary ventilation & Dead space
- Transport of respiratory gases
- Nervous & chemical regulation of respiration
- Pulmonary function test –direct & indirect method
- Physiological changes with altitude & acclimatization

UNIT-V (12 hours)

EXERCISE PHYSIOLOGY

- Basal Metabolic Rate & Respiratory Quotient
- Energy metabolism
- Fatigue
- Oxygen debt
- Acute cardio vascular changes during exercise ; difference between mild, moderate & severe exercise
- Concept of Endurance
- Acute respiratory changes during exercise
- Conceptoftraining/conditioning;effectsoflong-termexercise/trainingontheCVS&RS
- Body temperature regulation during exercise
- Hormonal & metabolic effects during exercise
- Exercise for muscle strength, power, endurance, and its effects on Physical fitness & its components

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED TEXT BOOKS

1. Textbook on Medical Physiology-Guyton
2. Textbook of Physiology-AK Jain (for MBBS students)
3. Human Physiology-C.C. Chatterjee
4. Essentials of Medical Physiology- Sembulingam, K.
5. ComprehensiveTextbookofMedicalPhysiology:Vol-1&2 -Pal, Gopal Krishna
6. Physiology: Prep Manual for Undergraduates-Joshi, Vijaya D.
7. Practical Physiology-Joshi, Vijaya D.

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

MEDICAL BIOCHEMISTRY–I

L/T/P/C : 4/-/-/4

Learning Objectives:

- Understand the structure, classification, and functions of major biomolecules including carbohydrates, lipids, proteins, and Nucleic Acid Chemistry.
- Explain the role of Enzymes, vitamins, and minerals in maintaining normal physiological functions.
- Describe key metabolic pathways such as Glycolysis, TCA cycle, and lipid metabolism, along with their clinical relevance.

Learning Outcomes:

- Demonstrate the ability to explain biochemical processes and their importance in normal body function and energy production.
- Interpret basic biochemical changes in body fluids, aiding in the understanding of clinical conditions such as Diabetes Mellitus and metabolic imbalances.
- Apply knowledge of enzymes, vitamins, and minerals to assess nutritional status and identify deficiency-related disorders.

UNIT-I (12hours)

CARBOHYDRATE CHEMISTRY

- Definition, general classification with examples
- Composition and function of Monosaccharides and Polysaccharides
- Anomers, Epimers, Enantiomers, Mutarotation
- Glycosaminoglycan's (mucopolysaccharides)

LIPIDCHEMISTRY

- Definition, classification with examples.
- Classification and Functions of Fatty Acids, Phospholipids, Lipoproteins
- Structure and function of cholesterol
- Sources and functions of ketone bodies

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT-II (12hours)

AMINOACID CHEMISTRY

- Definition, Classification of Amino Acids with Examples.
- Definition, Classification of Proteins with Examples
- Structural organization of proteins
- Biologically important peptides
- NUCLEIC ACIDS AND NUCLEOTIDE CHEMISTRY
- Composition and Function of Nitrogen bases, Nucleosides, Nucleotides
- Structure and Function of DNA
- Structure, Types, and Functions of RNA
- Differences between DNA and RNA

UNIT-III (12hours)

ENZYMES

- Definition, Classification of Enzymes with Examples
- Active site, Enzyme specificity.
- Factors affecting enzyme activity
- Enzyme inhibition
- Iso enzymes and their clinical significance, creatine kinase, ALP

VITAMINS

- Definition, Classification
- Fat-soluble Vitamins-Sources, RDA, Functions, and Deficiency.
- Water-soluble Vitamins-Sources, RDA, Functions, and Deficiency

UNIT-IV (12hours)

INTERMEDIARYMETABOILISM

- Glycolysis
- TCA cycle
- B-oxidation of fatty acids (Palmitic acid)
- Ketone body formation and utilization, Urea cycle

UNIT-V (12hours)

MINERAL METABOLISM

- Definition, Classification. Sources, RDA, Functions, and Deficiency of Calcium, Phosphorus, Iron, Sodium, Potassium

CLINICAL BIOCHEMISTRY

- Normal and abnormal constituents of urine and blood and their clinical significance:
- Normal constituents:
- Organic: Urea, Uric acid, Creatinine
- Inorganic: Ca, phosphate, chloride, electrolytes
- Abnormal constituents:
- Glucose, Ketone bodies, Protein, Blood, Bile salts, Bile Pigments

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED TEXT BOOKS

1. Essentials of Biochemistry by U. Satya Narayana.
2. Textbook of Biochemistry for Medical Students. DM Vasudeva
3. Integrated textbook of Biochemistry Volume-land II.Indumathi.
4. Textbook of Biochemistry for Medical Students.MN Chatterjee and Rana Shinde.
5. Illustrated Biochemistry.
6. Essentials of Biochemistry. Pankaja Naik

SOCIOLOGY

L/T/P/C

2/-/-/2

Learning Objectives

- To understand the basic concepts of sociology, social structure, and their relevance to healthcare.
- To analyse the influence of social factors, culture, family, and community on health and disease.
- To develop awareness about social problems and their impact on individual and public health.

Learning Outcomes

- Students will be able to explain sociological concepts, methods, and their application in healthcare settings.
- Students will assess the role of socialization, family, community, and culture in health and illness.
- Students will identify major social problems and apply sociological knowledge in patient care and health planning.

UNIT 1 (6 hours)

1.Introduction

- Meaning- Definition, Nature and Scope of Sociology
- Methods of Sociological Investigations, Case Study, Social Survey, Questionnaire, and Interview methods.
- Importance of its study with special reference to Health Care Professionals.

2. Social Factors in health and disease situations:

- Role of Social factors in health
- Role of social factors in illness
- Decision-making in taking treatment

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT II (6 hours)

1. Socialization:

- Definition and Meaning of Socialization
- Primary, Secondary, and Anticipatory socialization
- Agencies of Socialization

2. Social Groups:

- Definition and Features of Social Group
- Primary Social Group
- Secondary Social Group
- The role of Primary and Secondary Groups in Hospitals.

UNIT III (6 hours)

1. Family:

- The family, meaning, and definition

- Functions of the family
- Changing family patterns
- Influence of Family on the individual's health, the effects of sickness in the family.

2. Community:

- Rural community: meaning and features- Health problems of the rural community.
- Urban community: meaning and features - Health problems in urban areas.

UNIT IV (6 hours)

1. Culture and Health:

- Concept of Health
- Concept of Culture
- Cultural factors affecting Health and diseases

2. Social Change:

- Meaning of social change
- Factors of social change
- Human adaptation and social change
- Social Planning and Health

UNIT V (6 hours)

1. Social Problems:

- Population explosion
- Juvenile delinquency
- Alcoholism
- Unemployment
- Poverty
- Problems of women

2. Social Security:

- Social security and social legislation

RECOMMEMDED TEXT BOOKS

1. Principles of Sociology --- C.N. Shankar Rao

2. Sociology for physiotherapy students--K.P. Neeraja

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

ENGLISH AND COMMUNICATION SKILLS

L/T/P/C

2/-/-/2

Learning Objectives

- To develop reading, comprehension, and critical thinking skills through literary texts.
- To understand themes such as sympathy, work ethics, life stages, and social service.
- To enhance communication skills and appreciation of literature.

Learning Outcomes

- Students will be able to interpret and analyze poems, essays, and letters effectively.
- Students will demonstrate understanding of moral values like empathy, dedication, and service.
- Students will improve their language skills in reading, writing, and expressing ideas clearly.

UNIT1: Sympathy (Poem) by Charles Mackay (6 hours)
Reading-Reading and its importance, techniques of effective reading. Writing-Paragraph Writing (Topic sentence, Supporting sentences, and Conclusion) Grammar - Parts of Speech (Parsing), Articles **ELCSLAB** CALLLAB : Phonetics- Vowel Sounds (Monophthongs and Diphthongs) Listening-Introduction to listening, Purpose of Listening, and Barriers to effective listening

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT2: A Birthday Letter by Jawaharlal Nehru (6 hours)
Reading-Skimming and Scanning Writing-Letter writing (Requests, Leave applications, Purchase letters, Letters in correspondence with medical insurance companies) Grammar- Phrase, Clause and Sentence; Prepositions **ELCSLAB** CALLLAB: Phonetics- Consonant Sounds Listening-Listening for gist and specific information

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

UNIT3: The secret of work by Swami Vivekananda (6 hours)
Reading-Making inferences and predictions Writing-E-mail writing Grammar-Tenses, Reported speech vocabulary–food and life style, instrument & equipment **ELCSLAB** CALLLAB: Intonation Listening- Listening and identifying facts and opinions ICSLAB: Speaking-Role Plays (OET) (Giving and taking instructions, Interacting with and explaining processes, conditions and instructions to the patients and their attenders,

UNIT4: All the world's a stage (Poem) by William Shakespeare (6 hours)
Reading-Reading for explicit and implicit meaning Writing-Short essays: 2-ParagraphEssay, Thesis Statement Grammar-Subject-Verbal agreement, Degrees of Comparison **ELCSLAB** CALLLAB: Consonant Clusters Listening-Listen-Comprehend- Speak, Health Care

UNIT5: Sister Nivedita: Calcutta's Angel of Mercy (Article/Essay) by Monidipa Dey (6 hours)
Writing-Report writing (Analysing tests and Reporting patient condition) Grammar– Voice, If conditionals Vocabulary-Health, Wellness, Medical Vocabulary/Terminology **ELCSLAB** CALLLAB: Past Tense Markers and Plural Markers Listening- Listening tasks from OET and IELTS

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

TEXTBOOK:

English for Nurses by Vijaya Laxmi Naidu. Nirali Prakashan. 2008.

RECOMMENDED TEXT BOOKS

Practical English Usage by Michael Swan. OUP. 1995. On Writing Well by William Zinsser, Harper Resource Book. 2001. Cambridge English for Nursing by Virginia Allum and Patricia McGarr. CUP. 2010. English for Nursing by Ross Wright and Bethany Cagnol.Pearson.2001.
English for Nursing- 2 by Maris Spada Symonds and Ross Wright. Pearson. 2001. Every day English for International nurses by Joy Parkinson and Chris Brooker. Elsevier. 2004. Oxford English for Career Nurses by Tony Grice. Oxford University Press. 2007.

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

BASICS OF COMPUTERS

L/T/P/C 1/-/2/2

Learning Objectives:

- To understand all components of a computer, different working environments, and computer operations.
- To learn how to create different types of Word documents, MS Excel manipulations, and PowerPoint documents.
- To understand basic requirements of computer network hardware, software, and its network architecture.

Learning Objectives:

- At the end of the course, the student will be able
- Tounderstandperipheralsofthecomputerhowitworksandunderstandvarious languages of the computer.
- To create any kind of presentations for presenting their knowledge anywhere in the form of a document or PPT.
- To create Excel sheets to save data and process the data efficiently.
- To understand basic requirements of computer network hardware, software, and its network architecture.

UNIT–I (3 hours)

Introduction to computers--Definition of Computer-Characteristics of Computer Components of Computer Hardware–Memories–RAM and ROM–MB, GB, their conversions – Software: Application Software and Systems software- Data and Information –Different computer languages- Number systems- Binary and decimal conversions.

UNIT–II (3 hours)

MS Word: Typing text in MS Word–Manipulating text¬ text–formatting text–using different font sizes, bold, italic– bullets and numbering –Pictures, Aligning the text and justify– choosing paper size– adjusting margins– header and footer, inserting page numbers in a doc– printing a file with options–using spell check and grammar–find and replace– mail merge– insert tables in a document**.**

UNIT–III (3 hours)

MSEXCEL: Creating MS Excel – Cell editing, using formulas and functions, manipulating data with Excel–using sort function to sort numbers and alphabets–drawing graphs and charts using data in Excel.

MSPOWERPOINT: Slide transition and animation-slides with sounds–inserting clip arts–Pictures, tables, and graphs.

UNIT–IV (3 hours)

Introduction to Computer Networks: Introduction, Computer Network Devices(Hubs, Switches, Routers, Gateway, Bridge, Modems, Wireless Access Points, Firewalls & NIC), Types of computer Networks (LAN, MAN&WAN), Network Topologies(Star, Ring, Mesh, Tree, Hybrid Topologies), Internet Based Applications, Advantages & Disadvantages of Computer Networks, E-Mail, Components of E-Mail, Attaching Files in E-mail, Different

UNIT–V (3 hours)

Introduction to Artificial Intelligence & ML: History of AI, Sub Areas of AI, Applications of Healthcare, Benefits of AI in Healthcare, Challenges of AI in Healthcare, Introduction to Machine Learning, Applications of Machine Learning, Machine Learning Algorithms, Real-world Machine Learning Use Cases.

RECOMMENDED TEXT BOOKS

Computer Fundamentals by Goel, Anita Pearson

Computer Fundamentals: Concepts, Systems & Applications-8thEditionbyPritiSinha, Pradeep K., Sinha

MS-Office2010TrainingGuidebyProf.SatishJain, M. Geetha, Computer Networks, Andrews Stanenbaum, 5th Edition, Pearson Education
Artificial Intelligence: A Modern Approach, Stuart J. Russell and Peter Norvig, Third Edition, Pearson Education

Hands-on Machine Learning with Scikit-Learn, Keras, and Tensor Flow, Aurelien Geron-O'Reilly, 2nd Edition.

MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be University)

HUMAN ANATOMY- I (Practical)

L/T/P/C

-/-/4/2

Learning Objectives (LOs)

- To understand the structure and identification of upper extremity bones, joints, muscles, vessels, and nerves.
- To develop skills in recognizing gross anatomical specimens and spotters of major organs and systems.
- To correlate anatomical structures with their functional and clinical significance.

Learning Outcomes (COs)

- Students will be able to identify bones, joints, vessels, nerves, and organs in gross specimens and spotters accurately.
- Students will demonstrate knowledge of surface anatomy and anatomical relationships of upper extremity and vital organs.
- Students will apply anatomical knowledge to understand basic clinical conditions and diagnostic procedures.

GROSS SPECIMENS/SPOTTERS (30 hours)

Upper Extremity

- Identify the spotter- (Cross section of shoulder Joint, Elbow Joint, Wrist complex, Hand)
- Identify the bone- UPPER EXTREMITY BONES (Scapula, Clavicle, Humerus, Radius and Ulna, Carpals, Metacarpals and Phalanges) Including side determination
- Surface Anatomy of the Upper Extremity – UPPER EXTREMITY BONES AND MUSCLES
- Spotters of Blood vessels (Profunda Brachii, Brachial, Radial, Ulnar)
- Spotter of Nerves (Axillary, Musculocutaneous, Radial, Median, Ulnar)
- Gross Specimen of Heart, Lung
- Spotters of Bronchial tree, Bronchopulmonary segments

SYSTEMIC ANATOMY

- Gross Specimen/Spotter (Stomach, Liver, Gall Bladder, Spleen, Pancreas, Intestines, Kidney, Uterus)
- Cross section of Kidney

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

HUMAN PHYSIOLOGY–I Practical (30 hours)

L/T/P/C

-/-/4/2

Learning Objectives (LOs)

- To understand basic physiological parameters and their importance in clinical assessment.
- To develop practical skills in performing routine physiological experiments and measurements.
- To correlate physiological findings with normal body functions and health status.

Learning Outcomes (COs)

- Students will be able to perform and interpret basic physiological tests such as blood grouping, haemoglobin estimation, and blood pressure measurement.
- Students will demonstrate skills in assessing vital signs including pulse, respiration, and auscultation of heart and lung sounds.
- Students will apply physiological knowledge to evaluate normal and abnormal clinical conditions.

These practical's typically align with the theoretical aspects of physiology and help students apply concepts to real-world clinical scenarios. Key Areas Covered in Human Physiology for this semester include the following:

- Determination of blood group, bleeding time and clotting time
- Estimation of hemoglobin concentration
- Peripheral pulse determination
- Auscultation of Heart sounds
- Determination of blood pressure
- Auscultation of breath sounds
- Assessment of respiratory rate

MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be University)

ENVIRONMENTAL AWARENESS

L/T/P/C

1/-/-/1

Learning Objectives

- To understand fundamental environmental concepts such as ecosystems, biodiversity, pollution, and climate change.
- To create awareness about environmental issues, resource conservation, and sustainable development.
- To encourage responsible behavior and participation in environmental protection and sustainability practices.

Learning Outcomes

- Students will be able to explain key environmental concepts, issues, and their impact on ecosystems and human life.
- Students will analyze environmental challenges like pollution, climate change, and resource depletion, and suggest solutions.
- Students will adopt eco-friendly practices and contribute to environmental conservation at individual and community levels.

UNIT I (1 hour)

1. Introduction to Environmental Awareness
2. What is environmental awareness?
3. The importance of environmental education.
4. Key environmental concepts: ecosystems, biodiversity, sustainability. Historical perspective on environmental awareness.

UNIT II (1 hour)

1. Earth's Ecosystems and Biodiversity
2. What are ecosystems?
3. Types of ecosystems: forests, oceans, wetlands, etc. Importance of biodiversity.
4. Threats to biodiversity: habitat loss, invasive species, climate change.

UNIT III (2 hour)

1. Pollution and Its Impact
2. Types of pollution: air, water, soil, noise, and light pollution. Causes and effects of pollution on health and ecosystems. Case studies of major pollution events.

UNIT-IV **(2 hour)**

1. Climate Change and Global Warming
2. The science of climate change.
3. Greenhouse effect and human contributions.
4. Impacts of climate change: rising temperatures, sea levels, extreme weather. Mitigation and adaptation strategies.

UNIT-V **(1 hour)**

1. Resource Conservation
2. Renewable vs. non-renewable resources.
3. The importance of conserving water, energy, and other resources.
4. Techniques for conservation: recycling, energy efficiency, and water-saving practices.

UNIT-VI **(1 hour)**

1. Sustainable Agriculture and Food Systems
2. Environmental impact of conventional farming practices.
3. Sustainable agriculture: organic farming, permaculture, and agroecology. The role of diet in environmental sustainability.

UNIT-VII **(1 hour)**

1. Waste Management
2. Types of waste: municipal, industrial, hazardous, electronic. The 3 Rs: Reduce, Reuse, Recycle.
3. Landfills, incineration, and composting. Zero waste lifestyle.

UNIT-VIII **(2 hour)**

1. Water Conservation and Management
2. The global water crisis: causes and consequences. Water management practices and policies.
3. The importance of clean water for all living organisms.

UNIT-IX **(2 hour)**

1. Environmental Policy and Legislation
2. Global environmental treaties: Paris Agreement, Kyoto Protocol. National environmental policies and regulations.
3. Role of NGOs, governments, and individuals in policy development.

UNITX (2 hour)

1. Green Technologies and Innovations
2. Introduction to renewable energy sources (solar, wind, hydro, etc.). Electric vehicles and sustainable transportation.
3. Innovations in waste-to-energy and sustainable agriculture.
4. The Role of Individuals in Environmental Protection
5. How individual actions impact the environment.
6. Eco-friendly lifestyles: reducing waste, sustainable consumption, green travel. Community action and grassroots movements.

Reference Textbook

Environmental Science: A Global Concern" by William P. Cunningham & Mary Ann Cunningham

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

SEMESTER-II

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Human Anatomy - II	4	-	-	4	30	70	100
2		Human Physiology - II	4	-	-	4	30	70	100
3		Molecular Biology	1	-	2	2	30	70	100
4		Microbiology	3	-	2	4	30	70	100
5		Pathology	2	-	2	3	30	70	100
6		Health Psychology	2	-	-	2	30	70	100
7		Clinical Posting	-		6	3	100		100
8		Human Anatomy – II Practical	-	-	4	2	30	70	100
9		Human Physiology – II Practical	-	-	2	1	30	70	100
10		Stress Management	1	-	-	1	100	-	100
TOTAL			17	-	18	26	440	560	1000

HUMAN ANATOMY–II

L/T/P/C

4/-/-/4

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Learning Objectives

- To understand the detailed anatomy of the lower extremity, vertebral column, pelvic girdle, head, neck, and nervous system.
- To develop knowledge of bones, muscles, joints, nerves, and blood vessels along with their clinical relevance.
- To correlate anatomical structures with functional and radiological aspects in clinical practice.

Learning Outcomes

- Students will be able to identify and describe anatomical structures of the lower limb, spine, head & neck, and nervous system.
- Students will demonstrate understanding of muscle actions, joint movements, nerve supply, and vascular distribution.
- Students will apply anatomical knowledge to interpret clinical conditions and basic radiological findings.

UNIT-I (12 hours)

BASIC ANATOMY OF LOWER EXTREMITY:

1. Osteology including features, side determination, clinical and applied anatomy of the following lower extremity bones Innominate bone, femur, tibia, fibula, patella, tarsals, metatarsals and phalanges.

2. Myology: Origin, insertion, nerve supply, action, function, clinical and applied anatomy

- Gluteal Region

UNIT-II (12 hours)

BASIC ANATOMY OF LOWER EXTREMITY:

1. Arthrology: Joint structure, articulating components, relations, joint actions, Clinical and Applied Anatomy including Radiography

2. Hip Joint, Knee joint, Ankle joint, joints of the foot.

3. Femoral triangle, femoral canal and inguinal canal, Adductor canal, popliteal fossa, arches of foot

4. Lumbar plexus, Sacral plexus, Nerves of the Lower Extremity including cutaneous Nerves

5. Blood vessels and lymphatic drainage

UNIT-III (12 hours)

BASIC ANATOMY OF VERTEBRAL COLUMN AND PELVIC GIRDLE:

1. Types of vertebrae

2. Basic Structure and features of Cervical, thoracic, lumbar, sacral and coccygeal vertebrae

3. Muscles of Trunk and Abdomen

4. Core muscle Anatomy

5. Joints of vertebral column, structure and composition of intervertebral disc including the Radiography Evaluation

6. Basic Joint structure, articulating components, relations, joint actions, Clinical and Applied Anatomy including Radiography of Sacro- Iliac joint

7. Basic Structure of Innominate bone Pelvic girdle and muscles of the pelvic floor including Applied Anatomy

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT-IV (12 hours)

BASIC ANATOMY OF HEAD AND NECK:

1. Bones of the skull and face
2. Muscles of the face and neck

UNIT-V (12 hours)

BASIC NEURO ANATOMY:

1. General organization of Nervous System
2. Central Nervous System-Gross structure of Brain and Spinal Cord
3. Diencephalon- Gross structure of Thalamus, Hypothalamus and Basal Ganglia
4. Cerebro-Spinal Fluid
5. Spinal Cord- Segmental features, Laminae, Nuclei
6. Spinal nerves
7. Basic blood supply to brain and spinal cord with clinical and applied anatomy
8. Peripheral Nervous system
9. Cranial nerves- Applied Anatomy

RECOMMEMDED TEXT BOOKS

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

1. Human Anatomy – Snell
2. Anatomy- Chaurasia, Volume- I,II & III
3. Neuro anatomy -- Inderbir Singh
4. Human Anatomy – Kadasne, Volume- I, II & III
5. Neuroanatomy -- Vishrsam Singh
6. Human Anatomy – Datta

HUMAN PHYSIOLOGY–II

L/T/P/C

4/-/-/4

Learning Objectives

- To understand the physiology of the nervous system, special senses, endocrine, reproductive, gastrointestinal, and excretory systems.
- To develop knowledge of functional mechanisms, regulation, and integration of body systems.
- To correlate physiological concepts with clinical conditions and applied aspects.

Learning Outcomes

- Students will be able to explain functions and mechanisms of major body systems including nervous, endocrine, and renal systems.
- Students will demonstrate understanding of sensory processes, reflexes, hormones, and reproductive physiology.
- Students will apply physiological knowledge to interpret normal and abnormal conditions in clinical practice.

UNIT-I (12 hours)

NERVOUS SYSTEM-I

1. Introduction to nervous system - CNS, PNS and ANS

2. Neurotransmitters - Definition, fate of neurotransmitter, types

3. Synapse - Definition, type, structure, transmission of impulse across a synapse, properties.

4. Receptors and Sensation - Types of sensations, Classification of receptors, properties

5. Sensory System - Organization of the sensory system, sensory Homunculus

6. Pathophysiology of pain - Definitions, hyperalgesia and allodynia, deep pain, referred pain and its theories, management of chronic pain, endogenous opioid analgesic system

7. functions of various parts of brain in brief.

UNIT-II (12 hours)

NERVOUS SYSTEM-II

1. Spinal cord - Introduction, effects of complete transection of the spinal cord, effects of hemi section of the spinal cord (Brown-Sequard Syndrome)

2. Reflexes - Reflex action, reflex arc, classification, properties, types – superficial and deep reflexes

3. Regulation of tone, Posture and it's reflexes, Equilibrium and vestibular apparatus

4. Higher Functions - Learning, Memory, Speech

5. Autonomic Nervous System - Sympathetic division, Parasympathetic division, control of autonomic functions

6. Cerebrospinal fluid - Formation and circulation, composition, functions, applied aspect - Hydrocephalus, lumbar puncture

UNIT-III (12 hours)

SPECIAL SENSES:

1. Vision - Anatomy of eye, visual pathway, pupillary reflexes, dark adaptation, light adaptation, photosensitivity

2. Hearing - Anatomy of ear, auditory pathway, tests for hearing - Watch test, Rinne's test, Weber's test, deafness, Audiometry

3. Taste and Smell: Taste sensations, taste pathway, olfactory pathway

ENDOCRINOLOGY:

1. Hormones - Definition, types, functions

2. Secretion, regulation, function and applied aspect of Hypothalamus, Pituitary Gland, Thyroid Gland, Parathyroid Gland, Pancreas, Adrenal Gland.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT-IV (12 hours)

REPRODUCTIVE SYSTEM:

1. Sex determination and differentiation & it's abnormalities, puberty, importance of sex hormones

2. Female reproductive system - Internal & external genital organs, Oogenesis, Structure of egg, Follicle development, ovulation, menstrual cycle, menopause

3. Male reproductive system - Testes, accessory sex organs, Spermatogenesis, structure of sperm

4. Physiology of pregnancy - Fertilization, Implantation, Placenta (formation, function, hormones), maternal changes during pregnancy, pregnancy tests, infertility

UNIT-V (12 hours)

GASTROINTESTINAL SYSTEM:

1. Physiological stages of digestion

2. Liver function

EXCRETORY SYSTEM:

1. Kidneys-structure & function

2. Urine formation (to exclude concentration and dilution)

3. Juxtaglomerular apparatus

4. Fluid and electrolyte balance – Na, K, H2O

5. Renal circulation

6. Applied physiology: Types of bladders

RECOMMENDED TEXT BOOKS

1. Text book on Medical Physiology – Guyton

2. Textbook of Physiology – A K Jains

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

PATHOLOGY (Theory)

L/T/P/C

2/-/2/3

Learning Objectives

- To understand the basic mechanisms of cell injury, inflammation, immunity, and neoplasia.
- To develop knowledge of infectious, environmental, and nutritional disorders and their effects on the human body.

- To correlate pathological processes with clinical features and disease progression.

Learning Outcomes

- Students will be able to explain fundamental pathological concepts such as cell injury, inflammation, immunity, and tumor biology.
- Students will identify causes and mechanisms of various diseases including infections and environmental disorders.
- Students will apply pathological knowledge to understand disease diagnosis, progression, and clinical manifestations.

1. Cellular adaptation, Cell injury & cell death (5 hours)

- Introduction to pathology.
- Overview: Cellular response to stress and noxious stimuli. Cellular adaptations of growth and differentiation.
- Overview of cell injury and cell death.
- Causes of cell injury. Mechanisms of cell injury.
- Reversible and irreversible cell injury.
- Examples of cell injury and necrosis.

2. Inflammation (5 hours)

- General features of inflammation Historical highlights
- Acute inflammation
- Chemical mediators of inflammation Outcomes of acute inflammation Morphologic patterns of acute inflammation Summary of acute inflammation
- Chronic inflammation

3. Immunity disorders (5 hours)

- General features of the immune system Disorders of the immune system

4. Infectious diseases (5 hours)

- General principles of microbial pathogenesis viral infections.

- Bacterial infections-Rheumatic heart disease.
- Fungal infections.
- Parasitic infections.

5. Neoplasia (5 hours)

- Definitions Nomenclature.
- Biology of tumor growth benign and malignant neoplasms Epidemiology.
- Carcinogenic agents and their cellular interactions Clinical features of tumors.

6. Environmental and nutritional disorders (5 hours)

- Environmental and disease.
- Common environmental and occupational exposures Nutrition and disease.
- Coronary artery disease.

RECOMMENDED TEXT BOOK:

Pathology, Harsh Mohan e. Basic Pathology by Robbin

PATHOLOGY(PRACTICAL)

L/T/P/C

0 / 0 / 2 / 1

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Learning Objectives

1. To understand **basic pathological changes** in cells and tissues.
2. To identify **inflammation, infections, and tumors** in simple practical settings.
3. To develop skills in **microscope use and basic lab interpretation**.

Learning Outcomes

1. Students will be able to **identify common pathological conditions** under microscope.
2. Students will be able to **correlate pathology with basic clinical conditions**.

3. Students will be able to **interpret simple lab findings and slides**.

UNIT 1: Basic Lab & Cell Injury (3 hours)

- Microscope handling
- Normal vs abnormal cells
- Cell injury:
    - Swelling
    - Fatty change
- Necrosis (basic types – demo)

UNIT 2: Inflammation (3 hours)

- Acute inflammation (neutrophils)
- Chronic inflammation (lymphocytes)
- Granuloma (TB example)
- Slide identification

UNIT 3: Infectious Diseases & Immunity (3 hours)

- Bacterial infection (pus cells)
- TB (granuloma)
- Fungal infection (demo)
- Basic immunity disorders (case discussion)

UNIT 4: Neoplasia (Tumors) (3 hours)

- Benign vs malignant tumors
- Basic features:
    - Pleomorphism
    - Mitosis
- Gross specimen observation

UNIT 5: Environmental & Hematology Basics (3 hours)

- Fatty liver / atherosclerosis (demo)
- Nutritional disorders (case-based)
- Peripheral smear basics
- Hb / ESR (demo)

MICROBIOLOGY

L/T/P/C

3/-/2/4

Learning Objectives

- To understand the basic characteristics, classification, and growth of microorganisms including bacteria, viruses, fungi, and parasites.
- To develop knowledge of sterilization, disinfection, culture techniques, and immunological principles used in diagnosis.
- To study common pathogenic microorganisms, the diseases they cause, and their laboratory diagnosis and prevention.

Learning Outcomes

- Students will be able to identify and describe morphology, growth, and classification of microorganisms.
- Students will demonstrate understanding of diagnostic methods including culture techniques, serological tests, and sterilization procedures.
- Students will apply microbiological knowledge in identifying infectious agents and understanding their role in disease prevention and control.

1. Morphology (5 hours)

- Classification of microorganisms, size, shape and structure of bacteria. Use of microscope in the study of bacteria.

2. Growth and nutrition (5 hours)

- Nutrition, growth and multiplications of bacteria, use of culture media in diagnostic bacteriology.

3. Culture media (5 hours)

- Use of culture media in diagnostic bacteriology, antimicrobial sensitivity test.

4. Sterilization and Disinfection (5 hours)

- Principles and use of equipment of sterilization namely hot air oven, autoclave, and serum inspissate, pasteurization, antiseptic and disinfectants.

5. Immunology (5 hours)

- Immunity, vaccines, types of vaccine and immunization schedule, principles, and interpretation of common serological tests namely Widal, VDRL, ASLO, CRP, RF & ELISA.
- Rapid tests for HIV and HBsAg (excluding technical details).

6. Systematic Bacteriology (5 hours)

- Morphology, cultivation, diseases caused, laboratory diagnosis including specimen collection of the following bacteria (excluding classification, antigenic structure, and pathogenicity),
- Staphylococci, Streptococci, Pneumococci, Gonococci, Meningococci, C. diphtheriae, Mycobacteria, Clostridia, Bacillus, Shigella, Salmonella, E. coli, Klebsiella, Proteus,
- Vibrio cholerae, Pseudomonas & Spirochetes.

7. Parasitology (5 hours)

- Morphology, life cycle, laboratory diagnosis of following parasites: E.histolytica, Plasmodium, tape worms, Intestinal nematodes.

8. Mycology (5 hours)

- Morphology, diseases caused and lab diagnosis of following fungi. Candida, Cryptococcus, Dermatophytes, opportunistic fungi

9. Virology (5 hours)

- General properties of viruses, diseases caused lab diagnosis and prevention of following viruses, Herpes, Hepatitis, HIV, Rabies and Poliomyelitis.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED TEXT BOOKS:

1. Microbiology, Ananthanarayan and Paniker's,
2. CP. Baveja. Textbook of Microbiology for nurses.
3. A textbook of Microbiology-Chakraborty.

MICROBIOLOGY PRACTICAL

L/T/P/C

0 / 0 / 4 / 2

Learning Objectives

1. To understand **basic identification and structure of microorganisms** using simple laboratory techniques.
2. To develop skills in **microscopy, culture methods, and sterilization procedures**.
3. To gain knowledge of **common infections, diagnostic tests, and basic immunology practices**.

Learning Outcomes

1. Students will be able to **identify common bacteria, parasites, and fungi under microscope**.
2. Students will demonstrate **basic lab skills like staining, culture observation, and sterilization methods**.
3. Students will be able to **interpret simple diagnostic tests and correlate with infections**.

MALLA REDDY VISHWAVIDYAPEETH (deemed to be University)

UNIT 1: Microscopy & Bacterial Morphology (3 hours)

- Microscope handling
- Bacterial shapes:
    - Cocci, bacilli, spirilla

- Simple staining & Gram staining (demo)
- Observation of prepared slides

UNIT 2: Culture Methods & Media (3 hours)

- Types of culture media (basic understanding)
- Culture plate observation (agar plates)
- Colony characteristics (shape, color, size)
- Antimicrobial sensitivity test (demo)

UNIT 3: Sterilization & Disinfection (3 hours)

- Autoclave (demo)
- Hot air oven (awareness)
- Disinfection methods
- PPE and hand hygiene
- Biomedical waste disposal basics

UNIT 4: Immunology & Diagnostic Tests (3 hours)

- Blood grouping (demo)
- Serological tests (demo/awareness):
  - Widal
  - VDRL
  - CRP
  - ELISA
- Rapid tests (HIV, HBsAg – demo)
- Vaccine awareness & immunization schedule

UNIT 5: Systematic Microbiology (3 hours)

- Identification (slides/demo):

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

- Bacteria (Staph, Strep, E. coli)
- Parasites (Malaria, Amoeba)
- Fungi (Candida)
- Viruses (charts/images)

- Sample collection methods:
  - Blood, urine, sputum

MOLECULAR BIOLOGY

L/T/P/C

1/-/2/2

LEARNING OBJECTIVES

1. To understand the structure and function of cells, membranes, and molecular components of life.
2. To gain knowledge of genetic mechanisms including gene expression, mutations, and inheritance.
3. To develop awareness of genetic disorders, diagnostic tools, and counseling in clinical practice.

LEARNING OUTCOMES

1. Students will be able to explain cellular structure, membrane transport, and molecular functions.
2. Students will demonstrate understanding of gene expression, mutations, and inheritance patterns.
3. Students will apply knowledge of genetic testing and counseling in basic clinical scenarios.

UNIT–1: Cell Structure & Membrane Biology (3 hours)

- Overview of cell structure and subcellular organelles
- Biological membranes: structure and properties
- Membrane transport: diffusion and facilitated diffusion
- Osmosis and active transport
- Ion channels and their role in cellular function

UNIT–2: Basics of Medical Genetics (3 hours)

- Introduction to genetics in medicine
- DNA structure and chromosomes
- Genetic code and its properties
- RNA: structure, types, and clinical relevance

UNIT–3: Gene Expression & Regulation (3 hours)

- Gene expression: transcription
- Translation (protein synthesis)
- Epigenetic regulation of gene expression

UNIT–4: Genetic Mutations & Disorders (3 hours)

- Types of genetic mutations
- Genetic disorders and their clinical significance
- Inheritance patterns (Mendelian and non-Mendelian)

UNIT–5: Genetic Diagnosis & Counseling (3 hours)

- Genetic testing and diagnostic tools
- Screening methods in genetic diseases
- Genetic counselling and ethical considerations

RECOMMENDED TEXT BOOKS

1. Alberts et al. – Molecular Biology of the Cell
2. Harper's Illustrated Biochemistry
3. Lodish et al. – Molecular Cell Biology

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

MOLECULAR BIOLOGY – PRACTICAL

L/T/P/C

-/-/2/2

LEARNING OBJECTIVES

1. To develop basic laboratory skills in microscopy and cellular observation.
2. To understand principles of genetic testing, mutations, and molecular diagnostics.
3. To gain practical knowledge of RNA techniques and their clinical applications.

LEARNING OUTCOMES

1. Students will be able to identify and demonstrate cell structures using a light microscope.
2. Students will understand and explain basic genetic mutations and PCR-based testing concepts.
3. Students will gain skills in RNA handling techniques and laboratory record preparation.

UNIT–1: Microscopy & Cell Observation (5 hours)

- Introduction to laboratory and light microscope
- Microscopic examination of plant cells (onion peel)
- Microscopic examination of animal cells (cheek cells)
- Identification of cell organelles under light microscope
- Drawing and labelling of observed cell structures

UNIT–2: Genetic Testing & Mutation Studies (5 hours)

- Simulation of genetic testing – introduction to PCR
- Identification of genetic mutations (Sickle Cell Anemia case study)
- Identification of genetic mutations (Cystic Fibrosis case study)

UNIT–3: RNA Techniques & Record Work (5 hours)

- Introduction to RNA isolation techniques
- RNA isolation (demonstration/simulation)
- RNA quantification and quality assessment
- Clinical relevance of RNA in diagnosis
- Record writing and viva preparation

RECOMMENDED BOOKS

1. Karp – Cell and Molecular Biology: Concepts and Experiments
2. Lodish et al. – Molecular Cell Biology
3. Alberts et al. – Molecular Biology of the Cell

Health Psychology

L/T/P/C

2/-/-/2

Learning Objectives

- To understand the basic principles, concepts, and scope of psychology and its relevance to health sciences.
- To study human behavior, mental processes, personality, emotions, learning, and development across the lifespan.
- To develop awareness of psychological assessment, mental health disorders, and therapeutic approaches.

Learning Outcomes

- Students will be able to explain major psychological theories, concepts, and schools of thought.
- Students will demonstrate understanding of behavior, cognition, emotion, motivation, and personality in human life.
- Students will apply psychological principles in healthcare settings, including patient communication, stress management, and mental health awareness.

MALLA REDDY VISHWAVIDYAPEETH
Deemed to be University

1. Introduction to Psychology (2 hours)

- Definition of Psychology, Branches, Fields and Scope of Psychology, Educational and School Psychology" Physiological, Developmental, Social, Industrial and Organizational and Clinical Psychology. Emerging specialties, Environmental, Forensic and Health Psychology.

2. Scientific methods of studying Psychology (2 hours)

- Experimental, Observational, Case Study/Clinical Methods, Interview, Survey, Introspective and Testing Methods – Merits and Demerits.

3. Major schools of Psychology (2 hours)

- Structuralism-Functionalism-Behaviorism-Gestalt Psychology-Humanistic Psychology

4. Physiological basis of Psychology (2 hours)

- The Nervous System: Division of the nervous system, Neurons, Transmission of neural signals. The Synapse; The Implication of Chemical Transmission, Reflex Arcs and The Spinal Cord, The Endocrine System, The Brain, The Cerebral Hemispheres, The Central Core, Disorders of the Brain, Studying Brain behavior relations

5. Normal development (2 hours)

- Definition, Psychological needs and Development during Infancy, Early Childhood, Late Childhood, Adolescence, Adulthood and Old Age. Brief description of the relative importance of heredity and environment

6. Attention and Perception (2 hours)

- Definition, Types of attention, Voluntary, Involuntary and Habitual. Determinants of attention. Principles of perception, Inaccurate perception and Underlying reasons. Brain mechanisms of visual perception, Effects of brain damage on visual perception, Perception of form, Perception of Space and Motion.

7. Personality (2 hours)

Definition- Trait and Type Theories of Personality, The social learning approaches: Bandura, Psychodynamic approach: Freud, The humanistic approach: Maslow and Self-actualization. Rogers and Conditions of worth, Assessment of Personality through questionnaires and Projective tests.

8. Learning and Memory (2 hours)

- Definition, Factors affecting learning, Laws of learning by Thorndike; Importance of studying Psychology of learning in relation to Allied Health Sciences. Experimentation in learning: Human and Animal learning, Quantitative assessment of learning; Learning curves; Theories of conditioning, Pavlov‟s contribution. The biological significance of classical conditioning-Basic principles of classical conditioning-Conditioned emotional responses, what is learned in classical conditioning?
- Operant conditioning; The laws of effect of Skinner and operant behavior, The three contingencies, Reinforcement, Punishment and Extraction, Other Operant procedures and Phenomena. Conditioning of complex behavior, Aversive control of behavior, Observation and imitation.
- Sensory memory, short term or Working memory, Long term memory learning and encoding in long term memory, Organization of long-term memory, Reasons for forgetting.

9. Intelligence (2 hours)

- Definition, meaning of intelligence, Theories of intelligence, Spearman‟s two factor theory, an information processing theory of intelligence, The neuro psychological theory of intelligence, Mental age, and I.Q, Normal distribution of intelligence levels, Intelligence Testing, Intelligence tests, Uses and abuses of intelligence tests.

10. Motives and Emotions (2 hours)

- Definition, Motives, Drives, Needs, Biological needs, Eating, Sexual behavior, Aggressive behavior. The nature of Emotions, Expression and recognition of Emotions, Feelings and Emotions, Physiological basis of Emotions, Emotion and health, Heart disease, Headache, Asthma, Rheumatoid arthritis, Cancer and Peptic Ulcer. Theories of Emotions, James Lange theory, Cannon Bard theory and other theories

11. Attitudes and their Formation (2 hours)

- Sources of attitude, Nature of attitudes. Measurement of attitudes. Change of attitudes, Persuasion, Prejudices. Social influences and Group behavior, Imitation, social facilitation, social loafing, Reciprocity, Commitment, Attractive people, Authority, Group decision making, resisting social influence, Interpersonal relation and loving.

12. Lifestyle, Health, Stress and Coping Behavior (2 hours)

- Cultural evolution, Life style choices and consequences, Healthy and Unhealthy life styles. Nutrition, Physical fitness, Smoking and Drinking. Stress and Health, the biological basis of stress, Stress and Physical functioning, Coping with stress, Adjustment a life-long process. Cognitive appraisal and Stress, Stressful life styles, coping with everyday stress, Sources of stress, Coping styles and Strategies, Stress inoculation training

13. Communication (2 hours)

- Persuasion, Communication, the source, the message, the audience, Behavior in groups, the nature of groups, Leadership, Group structure, Group thinking, Herold Leavitt‟s communication network.

14. Clinical Psychology (2 hours)

- Definition of Clinical Psychology, Role of Clinical Psychology in Allied Health Sciences, Concept of Normality and Abnormality. The nature and causes of mental disorders. Classification of abnormal behavior DSMIV, ICD 10, Difference between Neuroses and Psychosis. Anxiety, Somatoform and Dissociative disorders, Personality disorders, Psychoactive substance use disorders, Schizophrenic disorders, Mood disorders

15. Psychological Assessment and Treatment (2 hours)

- Tests of intelligence (important test), Tests of personality (important test), Tests for adjustments and conflicts (Bells adjustment inventory, Sentence Completion Test, Projective tests such as Rorschach, TAT, CAT, CPT etc.) The treatment of mental disorders, Insight therapies, Psychoanalysis and Psychodynamic approaches, Humanistic therapy, Gestalt therapy, Behavior and Cognitive Behavior therapies, Counselling. Group therapy, Electro convulsive therapy, Psychosurgery, Ethical and legal issues in Psychotherapy.

REFERENCES

1. Introduction to Psychology by Jennifer Walinga, Charles Stangor
2. The Little Book of Psychology: An Introduction to the Key ...by Caroline Riggs, Emily Ralls · 2019
3. The Everything Psychology Book: Explore the Human Psyche and ...by Kendra

Cherry, Paul G Mattiuzzi · 2010

HUMAN ANATOMY PRACTICAL–II

L/T/P/C
-/-/4/2

Learning Objectives (LOs)

- To identify bones, joints, and anatomical landmarks of the spine, pelvis, and lower extremity.
- To understand surface anatomy and neuro-anatomical structures through gross specimens and spotters.
- To develop practical skills in recognizing structural relationships of bones, joints, brain, and spinal cord.

Learning Outcomes (COs)

- Students will be able to identify and locate bones, joints, and surface landmarks of the spine and lower limb accurately.
- Students will demonstrate knowledge of arthrology and neuro-anatomy using gross specimens and cross-sectional models.
- Students will apply anatomical understanding to interpret clinical and functional aspects of the musculoskeletal and nervous systems.

GROSSSPECIMENS/SPOTTERS (30 hours)

SPINE, PELVISANDLOWEREXTREMITY

- Identify the spotter- Osteology- Identify the bone, LOWER EXTREMITY BONES (Innominate bone, femur, tibia, fibula, patella, tarsals, metatarsals and phalanges.) Including side determination, Spinal Segments, Vertebrae (Cervical, Thoracic, Lumbar, Sacral and Coccyx), Pelvis and Innominate Bones
- Surface Anatomy of the Spine and Lower Extremity –Atlas, Axis, C-7 vertebrae, Spinous and Transverse process of vertebra, Locate the Innominate bone, ASIS and PSIS, Coccyx, Sacrum, Greater Trochanter, Condyles of femur, Patella, Tibial Tubercles and condyles, Shin Bone, Tarsal bones, Malleoli
- Arthrology- (Cross section of Hip Joint, Knee Joint, Ankle Joint, Joints of Foot, Pelvic Joints, Joints of Spine, Intervertebral Joints, Facet Joints, Sacro-Iliac Joints)

NEURO-ANATOMY IDENTIFY THE SPOTTER

- Cross Section of the Skull

SYSTEMIC ANATOMY

- Gross Specimen/Spotter (Brain and Spinal Cord)

HUMAN PHYSIOLOGY PRACTICAL–II (15 hours)

L/T/P/C

-/-/2/1

Learning Objectives

- To understand the assessment of sensory functions, reflexes, cranial nerves, and coordination.
- To develop practical skills in performing neurological examinations and interpreting findings.
- To correlate physiological functions of the nervous system with clinical neurological assessment.

Learning Outcomes

- Students will be able to perform and demonstrate examination of superficial, deep, and cortical sensations.
- Students will be able to assess reflexes, cranial nerve functions, and balance/coordination effectively.
- Students will apply physiological knowledge to identify normal and abnormal neurological responses in clinical practice.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

- Examination of superficial sensations
- Examination of deep sensations
- Examination of cortical sensations
- Examination of reflexes
- Cranial nerve examination

Examination of Balance and coordination

Clinical Postings (45 hours)

L/T/P/C

-/-/6/3

LEARNING OBJECTIVES

1. To develop clinical skills in patient assessment and basic procedures in hospital settings.
2. To gain exposure to emergency, medical, surgical, and pediatric patient management.
3. To understand hospital workflow, teamwork, and patient care responsibilities.

LEARNING OUTCOMES

1. Students will be able to perform basic clinical assessment and assist in patient care activities.
2. Students will demonstrate understanding of common hospital procedures and emergency care.
3. Students will develop professional communication, documentation, and ethical clinical practice skills.

• Exposure to emergency, medicine, surgery, pediatrics, OBG, and ICU settings for hands-on clinical learning.
• Training in basic patient assessment, history taking, vital signs monitoring, and documentation.
• Observation and assistance in common procedures like IV cannulation, wound dressing, CPR, and minor surgical care.
• Participation in ward rounds, case discussions, and understanding hospital workflow and teamwork.
• Development of communication skills, patient interaction, infection control practices, and professional ethics.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

SEMESTER – III

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		General Medicine - I	2	-	1	3	30	70	100
2		ENT , Opthalmology & Dermatology	2	-	1	3	30	70	100
3		Basics of Surgery	2	-	1	3	30	70	100
4		Pharmacology & Toxicology - I	2	-	1	3	30	70	100
5		Introduction to Healthcare Delivery System in India	2	-	-	2	30	70	100
6		Medical Law and Ethics	3	-	-	3	30	70	100
7		Clinical posting	-	-	4	4	100	-	100
8		Soft Skills Development	1	-	-	1	100	-	100
TOTAL			14		8	22	380	420	800

General medicine – 1

L/T/P/C
2/-/1/3

LEARNING OBJECTIVES

1. To understand the basic principles and scope of general medicine in clinical practice.
2. To develop knowledge of common cardiovascular, respiratory, gastrointestinal, and systemic diseases.
3. To build clinical reasoning skills for diagnosis and initial management of medical conditions.

LEARNING OUTCOMES

1. Students will be able to take history and perform basic clinical examination of medical patients.
2. Students will identify and explain common diseases of major organ systems.
3. Students will apply basic clinical knowledge in diagnosing and managing common medical conditions.

UNIT–1: Introduction & Clinical Examination (6 hours)

- Scope of general medicine and approach to patient care
- General physical examination (vitals, inspection, palpation, percussion, auscultation)
- Systematic history taking (present, past, family, personal history)
- Clinical reasoning and problem-oriented approach
- Documentation and case sheet writing basics

UNIT–2: Cardiovascular System (6 hours)

- Hypertension: causes, symptoms, and management
- Ischemic heart disease (angina, myocardial infarction)
- Heart failure: clinical features and basic management
- Common arrhythmias and ECG basics
- Rheumatic heart disease overview

UNIT–3: Respiratory System (6 hours)

- Asthma and COPD: clinical features and management
- Pneumonia and tuberculosis (basic concepts)
- Pleural effusion and pneumothorax
- Respiratory failure and oxygen therapy
- Chest X-ray interpretation basics

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT–4: Gastrointestinal & Hepatic System (6 hours)

- Peptic ulcer disease and gastritis
- Hepatitis and liver cirrhosis
- Jaundice: types and evaluation
- Acute abdomen (appendicitis, intestinal obstruction overview)
- Pancreatitis and gallbladder diseases basics

UNIT–5: Systemic & Emergency Conditions (6 hours)

- Diabetes mellitus and thyroid disorders
- Stroke and seizure disorders (basic management)
- Sepsis and shock recognition
- Anemia and bleeding disorders overview
- Common medical emergencies (hypoglycemia, poisoning basics)

RECOMMENDED BOOKS

1. Harrison's Principles of Internal Medicine
2. Davidson's Principles and Practice of Medicine
3. Kumar & Clark's Clinical Medicine

Practical (15 hours)

LEARNING OBJECTIVES

1. To develop basic clinical examination and patient assessment skills in hospital settings.
2. To gain ability in interpreting common investigations like ECG and basic laboratory reports.
3. To understand initial management of common medical and emergency conditions.

LEARNING OUTCOMES

1. Students will be able to perform systematic history taking and clinical examination independently.
2. Students will interpret basic diagnostic tests and identify common medical abnormalities.
3. Students will demonstrate basic clinical decision-making and emergency response skills.

Patient history taking and complete clinical examination (system-wise cases)

- General physical examination including vitals assessment and systemic examination
- ECG recording and basic interpretation (MI, arrhythmias, ischemic changes)
- Basic laboratory interpretation (CBC, LFT, RFT, electrolytes, urine analysis)
- Bedside clinical skills: BP measurement, blood glucose monitoring, pulse oximetry

- Respiratory assessment and chest examination with basic X-ray interpretation
- Cardiovascular examination and case-based discussion (HTN, IHD, heart failure)
- Neurological examination basics (cranial nerves, motor, sensory, reflexes)
- Emergency case handling basics (shock, sepsis, stroke, hypoglycemia)
- Case presentation, clinical reasoning, documentation, and viva preparation

Recommended Books

1. Harrison's Principles of Internal Medicine
2. Davidson's Principles and Practice of Medicine
3. Kumar & Clark's Clinical Medicine

ENT, OPHTHALMOLOGY & DERMATOLOGY

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To understand the basic anatomy, physiology, and common diseases of ENT, eye, and skin systems.

To develop clinical knowledge for identifying and managing common ENT, ophthalmic, and dermatological conditions.

To gain awareness of basic examination techniques and emergency management in these specialties.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

LEARNING OUTCOMES

Students will be able to identify and explain common ENT, eye, and skin disorders.

Students will demonstrate basic clinical examination skills in ENT, ophthalmology, and dermatology.

Students will apply knowledge for initial management and referral of specialty conditions.

UNIT–1: ENT (Ear, Nose & Throat) Basics (5 hours)

Anatomy and physiology of ear, nose, and throat

Common ENT infections (otitis media, sinusitis, pharyngitis)

Hearing loss: conductive and sensorineural types

Epistaxis (nose bleeding) and its management

Tonsillitis and adenoid disorders

UNIT–2: ENT Clinical Conditions & Procedures (5 hours)

Vertigo and balance disorders (basic approach)

Foreign body in ear, nose, and throat

Deviated nasal septum and nasal polyps

Hoarseness of voice and laryngeal disorders

Basic ENT examination techniques (otoscopy, rhinoscopy)

UNIT–3: Ophthalmology Basics (5 hours)

Structure and function of the eye

Common eye infections (conjunctivitis, keratitis, blepharitis)

Refractive errors (myopia, hypermetropia, astigmatism)

Cataract and glaucoma basics

Visual acuity testing and eye examination techniques

UNIT–4: Ophthalmology Clinical Conditions (5 hours)

Red eye and differential diagnosis

Corneal injuries and foreign body management

Diabetic retinopathy overview

Retinal detachment basics

Emergency eye conditions and first aid management

UNIT–5: Dermatology Basics (5 hours)

Structure and function of skin

Common skin infections (bacterial, fungal, viral)

Eczema, psoriasis, and dermatitis overview

Acne, urticaria, and allergic skin reactions

Basic skin examination and lesion identification

UNIT–6: Dermatology Clinical Conditions (5 hours)

Sexually transmitted skin diseases overview

Pigmentation disorders (vitiligo, melasma)

Skin tumors (benign and malignant basics)

Drug reactions and hypersensitivity skin conditions

Basic dermatological procedures (biopsy, cryotherapy observation)

PRACTICAL SYLLABUS (15 hours)

LEARNING OBJECTIVES

To develop basic clinical examination skills in ENT, ophthalmology, and dermatology.

To gain exposure to common outpatient procedures and patient evaluation.

To improve clinical observation, documentation, and communication skills.

LEARNING OUTCOMES

Students will be able to perform basic ENT, eye, and skin examinations.

Students will identify and describe common clinical conditions in OPD settings.

Students will demonstrate basic procedural skills and patient care awareness.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

ENT examination: otoscopy, rhinoscopy, throat examination

Hearing tests (whisper test, tuning fork test basics)

Management of epistaxis, foreign body removal (observation level)

Ophthalmology examination: visual acuity testing, slit lamp observation

Eye drop instillation and eye irrigation techniques

Conjunctivitis and red eye case assessment

Dermatology examination: skin lesion identification and description

Basic wound care, dressing techniques, and skin infection management

Case presentation and clinical documentation

OPD observation and patient history taking in ENT, eye, and skin clinics

RECOMMENDED BOOKS

Dhingra's Diseases of Ear, Nose and Throat

Parsons' Diseases of the Eye

Fitzpatrick's Dermatology in General Medicine

BASICS OF SURGERY

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

- Understand fundamental principles of surgical care and sterile techniques.
- Develop basic clinical skills in wound management and patient care.
- Recognize and assist in common surgical conditions and emergencies.

LEARNING OUTCOMES

Students will be able to apply aseptic techniques in clinical and OT settings.

Students can assist in basic surgical procedures and patient management.

Students will identify and provide initial care for common surgical emergencies.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT 1: General Principles of Surgery (6 hours)

Introduction to surgery

Surgical terminology

Asepsis and antisepsis

Sterilization and disinfection methods

Operation theatre setup and discipline

Surgical instruments basics

UNIT 2: Wound Healing and Wound Care (6 hours)

Types of wounds

Phases of wound healing

Factors affecting healing

Wound infection and complications

Dressing techniques

Sutures, knots, and removal

UNIT 3: Fluid, Electrolyte and Shock Management (6 hours)

Body fluid compartments

Electrolyte imbalance basics

Dehydration and fluid replacement

Types of shock (hypovolemic, septic, cardiogenic)

Basic resuscitation principles

IV fluids commonly used

UNIT 4: Preoperative and Postoperative Care (6 hours)

Preoperative assessment

Consent and patient preparation

Anaesthesia basics (local, regional, general)

Postoperative monitoring

Postoperative complications

Pain management

MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be University)

UNIT 5: Common Surgical Conditions and Emergencies (6 hours)

Acute abdomen overview

Appendicitis

Hernia basics

Burns classification and management

Trauma basics

First aid in surgical emergencies

PRACTICAL SYLLABUS (15 hours)

Hand washing techniques and surgical scrubbing

Sterilization methods demonstration

Identification of surgical instruments

Dressing and bandaging techniques

Suturing practice on models

IV cannulation basics (simulation)

Wound assessment and documentation

Basic life support (BLS) demonstration

Preoperative checklist practice

Postoperative patient monitoring charting

RECOMMENDED BOOKS

Bailey & Love's Short Practice of Surgery – Norman Williams et al.

Hamilton Bailey's Demonstrations of Physical Signs in Clinical Surgery

SRB's Manual of Surgery – Sriram Bhat M

Essentials of General Surgery – P. Raghu Ram

Clinical Surgery Made Easy – A. S. Bhatnagar (simplified learning)

MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be university)

PHARMACOLOGY AND TOXICOLOGY – I

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

Understand basic principles of drug action, absorption, and metabolism.

Learn classification and uses of important drugs in clinical practice.

Gain knowledge of common poisons and emergency management principles.

LEARNING OUTCOMES

Students will be able to explain drug mechanisms and therapeutic uses.

Students can identify common drug groups used in major body systems.

Students will be able to assist in basic poisoning management and drug safety practices.

UNIT 1: General Pharmacology (6 hours)

Introduction to pharmacology

Sources and classification of drugs

Pharmacokinetics (ADME: absorption, distribution, metabolism, excretion)

Pharmacodynamics (drug action and receptors)

Routes of drug administration

Adverse drug reactions and drug interactions

UNIT 2: Autonomic Nervous System Pharmacology (6 hours)

Sympathetic and parasympathetic nervous system overview

Cholinergic drugs (agonists and antagonists)

Adrenergic drugs (agonists and antagonists)

Clinical applications and side effects

Common autonomic drug uses in practice

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT 3: Cardiovascular System Pharmacology (6 hours)

Drugs for hypertension

Antianginal drugs

Antiarrhythmic drugs (basic classification)

Diuretics and their actions

Drugs used in heart failure

Basic concepts of blood coagulation and anticoagulants

UNIT 4: Central Nervous System Pharmacology (6 hours)

Sedatives and hypnotics

General anesthetics basics

Opioid analgesics

Antiepileptic drugs

Antidepressants and antipsychotics (basic overview)

Drug dependence and abuse

UNIT 5: Chemotherapy and Toxicology (6 hours)

Antibiotics (basic classification and uses)

Antiviral and antifungal drugs (overview)

Antitubercular drugs basics

Antimalarial drugs

Introduction to toxicology

Common poisons and their antidotes

Principles of poisoning management

PRACTICAL SYLLABUS (15 hours)

Prescription writing practice

Calculation of drug dosages

Routes of drug administration demonstration

Identification of common drug formulations

Interpretation of prescriptions

Adverse drug reaction reporting basics

Basic emergency drugs identification

Poison information and antidote charts study

Case-based drug application discussion

Mock pharmacology viva practice

RECOMMENDED BOOKS

K.D. Tripathi – Essentials of Medical Pharmacology

Rang & Dale's Pharmacology

Katzung – Basic & Clinical Pharmacology

Goodman & Gilman's Pharmacological Basis of Therapeutics (reference)

Shanbhag – Pharmacology for Paramedical Students

INTRODUCTION TO HEALTHCARE DELIVERY SYSTEM IN INDIA

L/T/P/C

2/-/-/2

Learning Objectives

1. Understand the structure and functioning of the healthcare delivery system in India.
2. Learn key concepts of health policies, HR management, and quality improvement in healthcare.
3. Gain knowledge of legal, ethical, and emerging trends in healthcare systems.

Learning Outcomes

1. Explain the organization, governance, and components of healthcare delivery systems.
2. Describe HR practices, patient safety measures, and quality improvement tools.
3. Apply knowledge of legal, ethical, and modern healthcare trends in practice.

1.**Introduction to Health Care Systems (5 hours)**

- Overview of Health Care Organizations (Hospitals, Systems, Clinics); Governance and Leadership in Health Care Organizations; Decision-Making and Communication Flows;
- Health Care Policies and Regulations
- Financial Management and Budgeting
- Health Insurance and Reimbursement
- Health Information Systems

2.Human Resources in Health Care: (5 hours)

- Health care workforce: Challenges and Trends; Workforce planning and job analysis; Recruitment and selection in health care; Employee retention and turnover; orientation, training, and professional development; Performance appraisal systems; Workplace safety, Wellness, and burnout prevention; HR analytics and Strategic planning

3.Quality Improvement and Patient Safety: (5 hours)

- Health care errors and adverse events; Root cause analysis (RCA) and Failure mode and effects analysis (FMEA); Quality measurement and performance indicators; Lean and six sigma in health care; Accreditation and regulatory requirements; Reporting systems and learning from errors

4.Legal and Ethical Issues (5 hours)

5.Strategic Planning and Marketing (5 hours)

6. merging Trends in Health Care (5 hours)

RECOMMENDED TEXT BOOKS:

1. Hospital Administration and Human Resource Management by Sharma, D.C
2. Principles of Hospital Administration and Planning by B.M. Sakharkar
3. Essentials of Hospital Management & Administration by S.L. Goel and R.K. Sharma
4. Health Care Management: Organization Design and Behaviour by Shortell & Kaluzny
5. Organizational Behaviour in Health Care by Nancy Borkowski
6. Introduction to Healthcare Quality Management by Patrice Spath
7. Patient Safety and Healthcare Improvement at a Glance by Sukhmeet Panesar et al.

MEDICAL LAW AND ETHICS

L/T/P/C

3/-/-/3

LEARNING OBJECTIVES

Understand basic principles and importance of ethics in healthcare practice.

Develop awareness of patient rights, confidentiality, and informed consent.

Learn ethical decision-making in clinical and professional situations.

LEARNING OUTCOMES

Students will be able to apply ethical principles in patient care.

Students can identify and handle ethical dilemmas in clinical practice.

Students will demonstrate professional behavior and legal awareness in healthcare settings.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT 1: Introduction to Medical Ethics (9 hours)

Definition and scope of medical ethics

Principles of ethics in healthcare

Hippocratic oath and its relevance

Values in medical profession

Importance of ethics in patient care

UNIT 2: Ethical Principles and Theories (9 hours)

Autonomy, beneficence, non-maleficence, justice

Confidentiality and privacy

Informed consent

Truth-telling and communication ethics

Ethical decision-making models

UNIT 3: Doctor–Patient Relationship (9 hours)

Types of doctor-patient relationships

Communication skills in healthcare

Patient rights and responsibilities

Breaking bad news

Handling difficult patients and families

UNIT 4: Professional Conduct and Legal Aspects (9 hours)

Professional misconduct

Medical negligence basics

Malpractice and liability

Role of Medical Council of India (NMC guidelines)

Documentation and record keeping

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT 5: Ethical Issues in Modern Medicine (9 hours)

Organ transplantation ethics

Euthanasia and end-of-life care

Abortion ethics

Clinical trials and research ethics

Ethics in emerging technologies (AI, genetics, etc.)

RECOMMENDED BOOKS

“Medical Ethics and Law” – Kenneth M. Boyd

Clear introduction to ethical principles in medicine

"Principles of Medical Ethics" – R. R. Chatterjee

Simple and exam-oriented for Indian students

"Medical Ethics in India" – C. R. K. Murthy

Focus on Indian legal and ethical healthcare context

CLINICAL POSTINGS (90 hours)

L/T/P/C

-/-/4/4

LEARNING OBJECTIVES

To provide students with basic clinical exposure across major medical and surgical specialties.

To develop foundational skills in patient observation, history taking, and basic clinical procedures.

To understand hospital workflow, drug usage, and basic patient management in different departments.

LEARNING OUTCOMES

Students will be able to assist in basic clinical examination and patient care under supervision.

Students will gain practical understanding of common diseases, treatments, and hospital practices.

Students will demonstrate basic professional behavior, communication skills, and clinical awareness in healthcare settings.

MALLA REDDY VISHWAVIDYAPEETH

Observation of OPD consultations in General Medicine and specialty departments

Participation in patient history taking and basic clinical examination

Observation of diagnosis and treatment planning by doctors

Exposure to common medical cases like fever, diabetes, hypertension, infections

Observation of ENT examination procedures (ear, nose, throat examination)

Exposure to common ENT conditions (otitis media, sinusitis, tonsillitis)

Assisting in basic ENT procedures like ear irrigation and nasal examination

Observation of ophthalmology OPD procedures

Basic eye examination techniques (visual acuity, eye inspection)

Exposure to common eye conditions (conjunctivitis, cataract, refractive errors)

Observation of dermatology OPD cases

Identification of common skin diseases (fungal infections, eczema, psoriasis)

Assisting in basic skin examination and sample collection procedures

Observation of minor surgical procedures in OT and wards

Assistance in dressing, bandaging, and wound care

Exposure to suturing, suture removal, and aseptic techniques

Preoperative and postoperative patient monitoring

Observation of prescription writing and drug dispensing in pharmacy

Understanding commonly used drugs and dosage forms

Exposure to IV drug administration and medication charts

Observation of adverse drug reactions (ADR) reporting

Participation in emergency care cases and basic first aid

Observation of poisoning management and antidote administration

Basic dosage calculation and drug safety practices

Maintenance of patient records and case sheet documentation

Participation in ward rounds and case discussions

Observation of doctor–patient communication and counseling

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

SOFT SKILL DEVELOPMENT

L/T/P/C

1/-/-/1

LEARNING OBJECTIVES

To develop effective communication and interpersonal skills in healthcare settings.

To enhance professional behavior, teamwork, and leadership qualities.

To improve confidence, presentation ability, and stress management skills.

LEARNING OUTCOMES

Students will be able to communicate effectively with patients and healthcare professionals.

Students will demonstrate professional behavior and teamwork in clinical environments.

Students will apply soft skills for personal development and career growth.

UNIT 1: Communication Skills (3 hours)

Basics of communication

Verbal and non-verbal communication

Barriers to communication

Active listening skills

Importance of communication in healthcare

UNIT 2: Professional Etiquette and Personality Development

Professional behavior in healthcare settings

Grooming and appearance

Etiquette in hospital and clinical environment

Positive attitude and confidence building

Personality development techniques

UNIT 3: Interpersonal and Teamwork Skills

Importance of teamwork in healthcare

Group dynamics

Conflict management

Leadership skills basics

Collaboration with healthcare team

UNIT 4: Presentation and Writing Skills

Public speaking basics

Presentation skills (seminars, case presentations)

Report writing and documentation skills

Email and formal communication

Resume writing basics

UNIT 5: Time Management and Stress Management

Importance of time management

Goal setting and prioritization

Stress and coping strategies

Emotional intelligence basics

Work-life balance in healthcare

RECOMMENDED BOOKS

"Soft Skills" – Dr. K. Alex

Simple and widely used for UG students

"Communication Skills for Professionals" – C. S. Rayudu

Focus on professional and healthcare communication

"Personality Development and Soft Skills" – Barun K. Mitra

Covers personality building, communication, and workplace skills

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

SEMESTER – IV

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		General Medicine - II	2	-	1	3	30	70	100
2		Advanced Surgery	2	-	1	3	30	70	100
3		Pharmacology & Toxicology - II	2	-	1	3	30	70	100
4		Medical Communication	1	-	1	2	30	70	100
5		Community Medicine & Clinical Research - I	2	-	1	3	30	70	100
6		Clinical posting	-	-	5	5	100	-	100
7		Health and Well-being	1	-	-	1	100	-	100
TOTAL			10	-	10	20	350	350	700

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

GENERAL MEDICINE – II

L/T/P/C
2/-/1/3

LEARNING OBJECTIVES

The course aims to:

Provide detailed understanding of systemic medical diseases affecting respiratory, cardiovascular, endocrine, renal and gastrointestinal systems.

Develop clinical skills in diagnosis, interpretation of investigations, and patient management.

Train students to recognize and assist in medical emergencies and chronic disease management.

LEARNING OUTCOMES

After completion, students will be able to:

Systematically evaluate patients with medical disorders.

Interpret basic investigations such as ECG, blood glucose, and radiology reports.

Assist physicians in managing acute and chronic medical conditions including emergencies.

THEORY

UNIT I: Respiratory System Diseases (6 hours)

This unit includes detailed study of:

Anatomy and physiology of respiratory system (revision)

Bronchial asthma: etiology, pathophysiology, classification, clinical features, diagnosis and management

Chronic obstructive pulmonary disease (COPD): chronic bronchitis and emphysema, risk factors, complications

Pneumonia: bacterial, viral, atypical pneumonia, clinical presentation and treatment

Pulmonary tuberculosis: pathogenesis, diagnosis (sputum examination, GeneXpert), DOTS therapy

Pleural diseases: pleural effusion, pneumothorax

Acute respiratory failure and oxygen therapy principles

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT II: Cardiovascular System Diseases (6 hours)

Hypertension: primary and secondary, complications, management guidelines

Ischemic heart disease: angina pectoris, myocardial infarction

Congestive heart failure: types, causes, clinical features, management

Arrhythmias: basic classification, ECG correlation

Rheumatic heart disease: etiology, valvular lesions

Cardiogenic shock and its management principles

UNIT III: Endocrine System Disorders (6 hours)

Diabetes mellitus: type 1 and type 2, pathophysiology, complications (neuropathy, nephropathy, retinopathy)

Hypoglycemia: causes, symptoms, emergency management

Thyroid disorders: hypothyroidism, hyperthyroidism, goiter

Adrenal disorders: Addison's disease, Cushing syndrome

Pituitary disorders: acromegaly, dwarfism basics

UNIT IV: Renal and Gastrointestinal System (6 hours)

Acute kidney injury (AKI) and chronic kidney disease (CKD)

Electrolyte imbalance: sodium, potassium, calcium disorders

Peptic ulcer disease: causes (H. pylori), complications

Liver diseases: hepatitis, cirrhosis, portal hypertension

Jaundice: prehepatic, hepatic, posthepatic

Gastroenteritis and malabsorption syndromes

UNIT V: Medical Emergencies (6 hours)

Basic life support (BLS) and advanced life support introduction

Types of shock and management

Poisoning: organophosphorus, drugs, alcohol

Status epilepticus

Diabetic ketoacidosis (DKA)

Acute severe asthma

Emergency airway management basics

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

PRACTICAL (15 hours)

Systematic clinical examination of patients (RS, CVS, Abdomen, CNS)

Blood pressure measurement techniques

Blood glucose testing using glucometer

ECG recording and interpretation (basic arrhythmias, MI recognition)

Oxygen therapy administration

Nebulization procedure observation

Case history taking and documentation

Ward rounds participation

ICU and emergency room observation

Basic life support (CPR training simulation)

RECOMMENDED BOOKS

Harrison's Principles of Internal Medicine

Davidson's Principles and Practice of Medicine

API Textbook of Medicine

ADVANCED SURGERY

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To provide advanced knowledge of surgical diseases and operative care.

To develop perioperative and postoperative management skills.

To enable recognition and management of surgical emergencies.

LEARNING OUTCOMES

Students will assist in surgical procedures under supervision.

Students will understand surgical decision-making and patient care.

Students will manage basic trauma and emergency surgical conditions.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

THEORY

UNIT I: Wound Healing and Burns (6 hours)

Physiology of wound healing (primary, secondary intention)

Types of wounds and wound infections

Chronic ulcers and diabetic foot

Burns: classification (degree-wise), complications, fluid resuscitation

Skin grafting and wound closure techniques

UNIT II: Gastrointestinal Surgery (6 hours)

Acute appendicitis: clinical features, diagnosis, treatment

Hernias: types, complications, surgical repair principles

Intestinal obstruction: causes and management

Peritonitis: acute abdomen concept

Gall bladder diseases: cholelithiasis, cholecystitis

UNIT III: Vascular Surgery (6 hours)

Varicose veins: causes and management

Deep vein thrombosis (DVT)

Peripheral vascular disease (PVD)

Acute limb ischemia

Vascular emergencies basics

UNIT IV: Trauma Surgery (6 hours)

Head injury: classification, Glasgow coma scale

Chest trauma: pneumothorax, hemothorax

Abdominal trauma: blunt and penetrating injuries

Fracture management principles

Trauma shock management

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT V: Surgical Oncology (6 hours)

Introduction to cancer biology

Tumor staging and grading

Breast cancer, oral cancer, gastrointestinal cancers

Principles of surgical oncology

Palliative care in surgery

PRACTICAL (15 hours)

Suturing techniques and surgical knot tying

Dressing and wound care procedures

Sterilization techniques in OT

Instrument identification in operation theatre

Preoperative patient preparation

Postoperative monitoring of patients

Trauma case observation

Assisting minor surgical procedures

Aseptic technique training

RECOMMENDED BOOKS

Bailey & Love's Short Practice of Surgery

SRB's Manual of Surgery

Schwartz Principles of Surgery

PHARMACOLOGY & TOXICOLOGY – II

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To study advanced pharmacological principles and drug therapy.

To understand clinical application of drugs in disease management.

To learn toxicology and poisoning management protocols.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

LEARNING OUTCOMES

Students will apply pharmacology knowledge in clinical settings.

Students will identify drug interactions and adverse effects.

Students will assist in emergency poisoning treatment.

THEORY

UNIT I: Autonomic Nervous System Drugs (6 hours)

Adrenergic agonists and antagonists

Cholinergic agonists and antagonists

Ganglionic blockers and neuromuscular blockers

Clinical applications

UNIT II: Chemotherapy (6 hours)

Antibiotics: penicillins, cephalosporins, aminoglycosides

Antifungal drugs

Antiviral drugs

Anticancer chemotherapy basics

Drug resistance mechanisms

UNIT III: Central Nervous System Drugs (6 hours)

General anesthetics

Sedatives and hypnotics

Antiepileptic drugs

Antipsychotics

Antidepressants

UNIT IV: Endocrine Pharmacology (6 hours)

Insulin therapy

Oral hypoglycemic agents

Thyroid drugs

Corticosteroids

Calcium and bone metabolism drugs

UNIT V: Toxicology (6 hours)

Organophosphorus poisoning

Drug overdose management

Alcohol poisoning

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Heavy metal poisoning

Antidotes and emergency protocols

PRACTICAL (15 hours)

Prescription interpretation

Drug dosage calculation exercises

Identification of drug formulations

Adverse drug reaction reporting system

Poison case study analysis

Emergency drug chart study

Clinical pharmacy observation

RECOMMENDED BOOKS

K.D. Tripathi – Pharmacology

Katzung – Basic & Clinical Pharmacology

Goodman & Gilman

MEDICAL COMMUNICATION

L/T/P/C

1/-/1/2

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

LEARNING OBJECTIVES

To develop effective communication in healthcare environment.

To improve patient counseling and interaction skills.

To enhance professional behavior and teamwork.

LEARNING OUTCOMES

Students will communicate effectively with patients and staff.

Students will demonstrate counseling skills.

Students will maintain professional communication ethics.

THEORY (15 hours)

UNIT I: Communication Process and Barriers (3 hours)

Definition and importance of communication in healthcare

Elements of communication process (sender, message, channel, receiver, feedback)

Types of communication (verbal, non-verbal, written)

Barriers to effective communication (language, emotional, environmental, cultural, psychological)

Ways to overcome communication barriers

Importance of clear communication in patient care

UNIT II: Doctor–Patient Relationship (3 hours)

Concept and importance of doctor–patient relationship

Types of doctor–patient relationships (active-passive, guidance-cooperation, mutual participation)

Trust and confidentiality in healthcare

Patient rights and responsibilities

Ethical aspects in communication

Factors affecting doctor–patient relationship

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT III: Active Listening and Empathy (3 hours)

Definition of active listening

Techniques of active listening (attention, clarification, reflection)

Importance of empathy in healthcare

Difference between sympathy and empathy

Role of listening skills in patient satisfaction

Non-verbal cues in communication (eye contact, body language, tone)

UNIT IV: Counseling Techniques and Breaking Bad News (3 hours)

Concept and importance of counseling in healthcare

Principles of effective counseling

Steps in counseling process

Basic counseling skills (rapport building, questioning, feedback)

Breaking bad news: definition and importance

Protocol for breaking bad news (SPIKES model basics)

Handling patient emotions during counseling

UNIT V: Team Communication and Cultural Sensitivity

Communication within healthcare team (doctors, nurses, allied staff)

Importance of teamwork in patient care

Interprofessional communication

Conflict resolution in healthcare teams

Cultural sensitivity in communication

Respecting diversity in patient care (language, religion, beliefs)

Role of communication in improving healthcare outcomes

PRACTICAL (15 hours)

Role plays (patient interaction)

Counseling simulation sessions

Seminar presentations

Case discussions

Group communication exercises

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED BOOKS

Soft Skills – Dr. K. Alex

Communication Skills – C.S. Rayudu

COMMUNITY MEDICINE & CLINICAL RESEARCH – I

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To understand community health systems.

To introduce epidemiology and research methods.

To develop public health awareness.

LEARNING OUTCOMES

Students will conduct community health surveys.

Students will understand disease distribution.

Students will apply basic research methods.

THEORY

UNIT I: Introduction to Community Medicine (6 hours)

Concept and scope of community medicine

Difference between clinical medicine and community medicine

Levels of healthcare (primary, secondary, tertiary)

Determinants of health

Health indicators (mortality, morbidity, life expectancy)

Role of physician assistant in community health

UNIT II: Epidemiology Principles (6 hours)

Definition and aims of epidemiology

Natural history of disease

Epidemiological triad (agent, host, environment)

Types of epidemiology (descriptive, analytical, experimental)

Measures of disease frequency (incidence, prevalence)

Modes of disease transmission

Basic outbreak investigation steps

UNIT III: Disease Surveillance Systems (6 hours)

Concept and importance of surveillance

Types of surveillance (active, passive, sentinel)

Disease notification system in India

IDSP (Integrated Disease Surveillance Programme)

Outbreak detection and reporting

Role of healthcare workers in surveillance

UNIT IV: National Health Programs (6 hours)

Overview of National Health Mission (NHM)

Maternal and Child Health programs (RCH)

Universal Immunization Programme (UIP)

National Tuberculosis Elimination Programme (NTEP)

National AIDS Control Programme (NACP)

National Malaria Control Programme

Non-communicable disease control programs (diabetes, hypertension)

UNIT V: Biostatistics & Research Methodology (6 hours)

Introduction to biostatistics

Types of data (qualitative, quantitative)

Measures of central tendency (mean, median, mode)

Measures of dispersion (basic idea)

Introduction to research methodology

Types of research (descriptive, analytical)

Steps in research process

Basics of sampling and data collection

Ethics in research (basic introduction)

PRACTICAL (15 hours)

PHC visit

Health surveys

Immunization observation

Data collection

Field research work

RECOMMENDED BOOKS

Park's PSM

Mahajan Biostatistics

HEALTH AND WELL-BEING

L/T/P/C

1/-/-/1

Learning Objectives:

1. By the end of the course, students will be able to:
2. Understand the physical, mental, and social determinants of health.
3. Apply strategies for improving and maintaining physical health.
4. Recognize the importance of mental well-being and stress management techniques.
5. Understand the relationship between nutrition and overall health.
6. Develop practical skills for managing time, stress, and emotions.
7. Cultivate a balanced approach to achieving long-term health and well-being.

Learning Outcomes

1. Explain dimensions of health and factors influencing well-being.
2. Describe healthy practices in fitness, nutrition, sleep, and mental health.
3. Apply knowledge to develop and maintain healthy lifestyle habits for disease prevention.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT-I (1 hour)

1. Introduction to Health and Well-being
2. Overview of health and well-being concepts
3. Dimensions of health: Physical, mental, social, and emotional The impact of lifestyle choices on health

UNIT-II (2 hour)

1. Physical Health and Fitness
2. Importance of physical activity for overall health
3. Types of exercise: Aerobic, strength, flexibility, and balance Creating a personal fitness plan

UNIT-III (2 hour)

1. Nutrition and Healthy Eating
2. Basics of nutrition: Macronutrients and micronutrients Healthy eating habits and food groups
3. Impact of nutrition on physical and mental health

UNIT-IV (2 hour)

1. Mental Health and Emotional Well-being
2. Understanding mental health: Definitions, stigma, and myths Key aspects of emotional well-being
3. Building emotional resilience

UNIT-V(1 hour)

1. Stress Management Techniques Understanding stress and its effects on health Mindfulness and relaxation techniques
2. Time management for stress reduction

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT-VI (1 hour)

1. Sleep and Recovery
2. Importance of sleep for physical and mental health Sleep hygiene and healthy sleep habits
3. Impact of sleep deprivation on overall well-being

UNIT-VII (2 hour)

1. Social Health and Relationships
2. The role of social connections in well-being
3. Healthy relationships: Communication, boundaries, and support Community involvement and social well-being

UNIT-VII (1 hour)

1. Substance Use and Addiction
2. The impact of alcohol, tobacco, and drugs on health Understanding addiction and treatment options Preventive measures and harm reduction strategies

UNIT-IX (2 hour)

1. Chronic Diseases and Prevention
2. Common chronic diseases (e.g., diabetes, heart disease) Risk factors and lifestyle modifications for prevention Screening, early detection, and health monitoring

UNIT-X (1 hour)

1. Building Healthy Habits
2. The psychology of habit formation
3. Strategies for adopting and maintaining healthy habits Overcoming barriers to healthy behaviour changes

Reference Textbook

Health and Wellness" by S. L. Kaskutas & K. A. A. Nielson

CLINICAL POSTINGS (75 hours)

L/T/P/C

-/-/5/5

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

LEARNING OBJECTIVES

To provide hands-on clinical exposure in medical, surgical, community, and allied healthcare settings.

To develop basic clinical, communication, and patient management skills under supervision.

To understand hospital workflow, drug administration, and community health practices.

LEARNING OUTCOMES

Students will be able to assist in basic clinical examination, procedures, and patient care activities.

Students will demonstrate effective communication with patients, healthcare teams, and community members.

Students will gain practical understanding of disease management, drug usage, and preventive healthcare practices.

Observation of patient consultation in General Medicine OPD and ward rounds

Assisting in basic clinical examination and history taking of patients

Exposure to common medical cases like diabetes, hypertension, asthma, infections, and heart diseases

Observation of surgical OPD, minor OT procedures, and inpatient surgical wards

Assisting in dressing, wound care, and post-operative patient monitoring

Exposure to trauma cases, fracture management, and emergency surgical care

Observation of sterilization procedures and OT aseptic techniques

Participation in pharmacy and clinical drug administration activities

Observation of prescription writing and drug dispensing system

Understanding drug charts, IV medications, and dosage calculations

Observation of adverse drug reaction reporting system

Exposure to poisoning cases and emergency drug management

Participation in doctor–patient communication and counseling sessions

Observation of breaking bad news situations under supervision

Practice of patient interviewing and communication skills in OPD

Participation in healthcare team discussions and ward meetings

Field visits to Primary Health Centres (PHC) and community health programs

Participation in immunization programs and health awareness activities

Observation of national health programs implementation in field settings

Health survey and basic data collection in community settings

Exposure to disease surveillance and reporting systems

Participation in health education and wellness programs

Observation of lifestyle disease counseling (diabetes, hypertension, obesity)

Involvement in yoga, stress management, and preventive health activities

Community awareness sessions on hygiene, nutrition, and mental health

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

SEMESTER - V

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Emergency Medicine	3	-	1	4	30	70	100
2		Paediatrics	3	-	1	4	30	70	100
3		Community Medicine	2	-	-	2	30	70	100
4		Introduction to Health Care Managment	1	-	-	1	30	70	100
5		Community Medicine and Clinical Research - II	2	-	1	3	30	70	100
6		Clinical Posting	-	-	6	6	100	-	100
7		Interpersonal Communication	1	-	-	1	100	-	100
TOTAL			12	-	9	21	350	350	700

EMERGENCY MEDICINE

L/T/P/C

3/-/1/4

LEARNING OBJECTIVES

The course is designed to:

Provide in-depth knowledge of emergency care systems, triage, and rapid patient assessment.

Develop competency in recognizing and managing life-threatening medical, surgical, and trauma conditions.

Train students in performing essential life-saving procedures and working effectively in emergency teams.

LEARNING OUTCOMES

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

Perform systematic primary (ABCDE) and secondary assessment of emergency patients.

Assist in resuscitation, airway management, and emergency interventions under supervision.

Identify and initiate management of acute medical and trauma emergencies following standard protocols.

UNIT I: Emergency Care Systems and Principles (9 hours)

This unit introduces the organization and functioning of emergency services:

Definition, scope, and importance of emergency medicine in healthcare

Structure of Emergency Department (ED) and triage system

Triage categories: immediate, urgent, delayed, expectant

Principles of disaster management and mass casualty handling

Primary survey (Airway, Breathing, Circulation, Disability, Exposure – ABCDE approach)

Secondary survey and detailed patient evaluation

Basic Life Support (BLS) and overview of Advanced Cardiac Life Support (ACLS) protocols

UNIT II: Medical Emergencies (9 hours)

Acute coronary syndrome: pathophysiology, ECG changes, emergency management

Stroke: ischemic vs hemorrhagic, FAST assessment, thrombolysis basics

Respiratory emergencies: acute asthma, COPD exacerbation, respiratory failure

Diabetic emergencies: DKA and hypoglycemia (diagnosis and treatment)

Poisoning: organophosphorus, drug overdose, alcohol intoxication

Anaphylaxis: causes, clinical features, emergency management

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT III: Trauma and Critical Care (9 hours)

Principles of trauma management (ATLS concept)

Head injury: Glasgow Coma Scale, intracranial pressure basics

Spinal cord injuries: immobilization techniques

Chest trauma: pneumothorax, hemothorax, flail chest

Abdominal trauma: blunt vs penetrating injuries

Hemorrhagic shock and fluid resuscitation

UNIT IV: Surgical and Miscellaneous Emergencies (9 hours)

Acute abdomen: appendicitis, intestinal obstruction, perforation

Burns: classification, pathophysiology, fluid resuscitation (Parkland formula)

Seizures and status epilepticus

Syncope and altered consciousness

Basic obstetric emergencies awareness (eclampsia, bleeding)

UNIT V: Emergency Procedures and Critical Interventions (9 hours)

Airway management: positioning, airway adjuncts, bag-mask ventilation

Intravenous access and fluid therapy

Cardiopulmonary resuscitation (CPR)

Defibrillation and cardiac monitoring

Oxygen therapy and ventilatory support basics

Emergency drugs: adrenaline, atropine, fluids, anticonvulsants

PRACTICAL (15 hours)

Certification-level training in BLS and CPR

Airway management using mannequins

IV cannulation and fluid administration

ECG recording and recognition of emergency patterns

Emergency room and ICU clinical posting

Trauma assessment drills

Splinting, bandaging, and hemorrhage control

Oxygen therapy and nebulization

Crash cart familiarization

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED BOOKS

Tintinalli's Emergency Medicine

Oxford Handbook of Emergency Medicine

Rosen's Emergency Medicine

PEDIATRICS

L/T/P/C

3/-/1/4

LEARNING OBJECTIVES

To understand normal growth, development, and pediatric physiology.

To identify and manage common pediatric illnesses and emergencies.

To promote preventive child healthcare including immunization and nutrition.

LEARNING OUTCOMES

Students will assess growth and development using standard charts.

Students will assist in diagnosis and management of pediatric conditions.

Students will participate in immunization and preventive child health programs.

UNIT I: Growth, Development and Nutrition (9 hours)

Principles of growth and development

Developmental milestones: motor, language, social domains

Growth monitoring using WHO growth charts

Infant and child nutrition: breastfeeding, complementary feeding

Nutritional requirements and deficiency disorders

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT II: Common Paediatric Diseases (9 hours)

Acute respiratory infections (pneumonia, bronchiolitis)

Diarrheal diseases and dehydration

Fever in children: approach and management

Nutritional disorders: protein-energy malnutrition, vitamin deficiencies

UNIT III: Neonatology (9 hours)

Care of normal newborn and immediate postnatal care

Neonatal resuscitation principles

Neonatal jaundice: causes and management

Prematurity and low birth weight

Neonatal infections and sepsis

UNIT IV: Paediatric Emergencies (9 hours)

Acute dehydration and ORS therapy

Seizures and febrile convulsions

Respiratory distress

Pediatric shock and its management

UNIT V: Preventive Pediatrics (9 hours)

National Immunization Schedule

Growth monitoring and early detection of disorders

School health services

National child health programs

Prevention of childhood diseases

PRACTICAL (15 hours)

Pediatric history taking and examination

Growth chart plotting and interpretation

Immunization clinic participation

Neonatal care observation

ORS preparation and dehydration assessment

Pediatric case presentation

RECOMMENDED BOOKS

Ghai Essential Pediatrics

Nelson Textbook of Pediatrics

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

COMMUNITY MEDICINE

L/T/P/C

2/-/-/2

LEARNING OBJECTIVES

To understand the fundamental concepts of epidemiology, environmental health, and demography in relation to community health.

To develop knowledge of disease patterns, study designs, and health indicators used in public health planning.

To create awareness about national health programs, health promotion strategies, and the role of healthcare workers in community settings.

LEARNING OUTCOMES

Students will be able to explain epidemiological concepts, disease distribution, and environmental health factors affecting populations.

Students will interpret basic health indicators and understand their application in planning and evaluating health services.

Students will identify major national health programs (such as those under National Health Mission) and apply health education strategies in community practice.

UNIT I: Epidemiology – Concepts and Measures (6 hours)

Definition, scope, and objectives of epidemiology

Natural history of disease and levels of prevention

Epidemiological triad (agent, host, environment)

Measures of disease frequency: incidence, prevalence

Morbidity and mortality indicators

Uses of epidemiology in public health

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT II: Epidemiological Study Designs (6 hours)

Descriptive studies: case reports, case series, cross-sectional studies

Analytical studies: case-control and cohort studies

Experimental studies: randomized controlled trials (basic concept)

Screening tests: sensitivity, specificity, predictive values

Bias and confounding factors (basic introduction)

UNIT III: Environmental Health (6 hours)

Concept and importance of environmental health

Water: sources, purification, water-borne diseases

Sanitation: waste disposal, sewage systems

Air pollution: sources, health effects

Noise pollution and occupational hazards

Role of environmental control in disease prevention

UNIT IV: Demography and Health Indicators (6 hours)

Demography: definition and importance

Population structure and dynamics

Fertility, mortality, and migration

Census and vital statistics

Health indicators: IMR, MMR, life expectancy, morbidity rates

Use of health indicators in planning health services

UNIT V: National Health Programs & Health Promotion (6 hours)

Overview of National Health Mission (NHM)

Major national health programs (TB, HIV/AIDS, malaria, NCDs)

Immunization programs (UIP)

Health education: principles and methods

Health promotion strategies and behavior change communication (BCC)

Role of healthcare workers in community awareness

RECOMMENDED BOOK

Park's Preventive and Social Medicine

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

INTRODUCTION TO HEALTH CARE MANAGEMENT

L/T/P/C

1/-/-/1

LEARNING OBJECTIVES

To understand the fundamental principles of management and their application in healthcare settings, including planning, organizing, staffing, directing, and controlling.

To gain knowledge of hospital organization, administration, human resource management, and quality assurance systems.

To develop awareness of healthcare financing, insurance systems, and accreditation standards such as National Accreditation Board for Hospitals & Healthcare Providers.

LEARNING OUTCOMES

Students will be able to explain the structure and functioning of hospital administration and management systems.

Students will demonstrate understanding of human resource management, quality assurance, and patient safety practices in healthcare.

Students will be able to describe healthcare financing systems and the role of insurance schemes like Ayushman Bharat in improving healthcare access.

UNIT I: Principles of Management (3 hours)

Definition and importance of management in healthcare

Functions of management: planning, organizing, staffing, directing, controlling

Decision-making process in healthcare settings

Leadership styles and qualities of a good manager

Coordination and supervision in hospital services

UNIT II: Hospital Organization and Administration (3 hours)

Structure of hospital organization (public and private sectors)

Types of hospitals (primary, secondary, tertiary care)

Roles and responsibilities of hospital administration

Departmental organization (OPD, IPD, ICU, OT, emergency)

Hospital policies and standard operating procedures (SOPs)

UNIT III: Human Resource Management in Hospitals (3 hours)

Importance of human resource management in healthcare

Recruitment, selection, and training of staff

Roles of doctors, nurses, and allied health professionals

Staff motivation and performance appraisal

Teamwork and conflict management in hospitals

UNIT IV: Quality Assurance and Accreditation (3 hours)

Concept of quality in healthcare

Quality assurance and quality improvement processes

Patient safety and risk management

Accreditation systems in India

Basics of National Accreditation Board for Hospitals & Healthcare Providers (NABH)

Infection control and hospital safety protocols

UNIT V: Health Insurance and Financing Systems (3 hours)

Concept of healthcare financing

Sources of healthcare funding (government, private, insurance)

Types of health insurance (public and private)

Overview of government schemes (e.g., Ayushman Bharat)

Out-of-pocket expenditure and financial protection

Role of insurance in improving healthcare access

RECOMMENDED BOOK

Hospital Administration – D.C. Joshi

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

COMMUNITY MEDICINE & CLINICAL RESEARCH – II

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To develop advanced understanding of epidemiological concepts and their application in healthcare research.

To gain knowledge of biostatistics and research methodologies used in medical studies.

To understand principles of clinical trials, data analysis, and ethical considerations in research.

LEARNING OUTCOMES

Students will be able to apply epidemiological methods and research designs in healthcare studies.

Students will analyze and interpret basic statistical data such as mean, standard deviation, and correlation.

Students will understand clinical trial processes and demonstrate awareness of research ethics.

UNIT I: Advanced Epidemiology (6 hours)

Advanced concepts of epidemiology and its applications

Disease causation theories

Measures of association (risk, odds ratio, relative risk)

Outbreak investigation steps

Surveillance systems and their role in public health

UNIT II: Biostatistics (6 hours)

Introduction to biostatistics and its importance in healthcare

Types of data (qualitative and quantitative)

Measures of central tendency: mean, median, mode

Measures of dispersion: standard deviation, variance

Correlation and basic interpretation of data

UNIT III: Research Design (6 hours)

Types of research designs

Observational studies: case-control and cohort studies

Experimental studies (basic concepts)

Sampling methods (random, non-random)

Bias and confounding factors

UNIT IV: Data Collection and Analysis (6 hours)

Methods of data collection (questionnaires, interviews, observation)

Data entry and tabulation

Basic data analysis and interpretation

Presentation of data (tables, graphs, charts)

Report writing basics

UNIT V: Clinical Trials and Ethics (6 hours)

Introduction to clinical trials (phases I–IV)

Good Clinical Practice (GCP) basics

Ethical principles in research (consent, confidentiality)

Role of ethics committee

Safety and rights of participants

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED BOOKS

Park's Textbook of Preventive and Social Medicine

Mahajan & Gupta – Textbook of Biostatistics

Kothari – Research Methodology: Methods and Techniques

PRACTICAL (15 hours)

LEARNING OBJECTIVES

To develop basic skills in conducting a simple research project in healthcare.

To understand methods of data collection, analysis, and interpretation.

To train students in scientific report writing and presentation of findings.

LEARNING OUTCOMES

Students will be able to design and conduct a basic research study under supervision.

Students will analyze and interpret collected data using simple statistical methods.

Students will prepare and present a structured research report following scientific guidelines.

Selection of research topic relevant to community or clinical setting

Preparation of research proposal (aims, objectives, methodology)

Designing data collection tools (questionnaire / survey forms)

Data collection through field survey or hospital records

Data entry and tabulation (manual or basic software)

Basic statistical analysis (mean, percentage, simple charts)

Interpretation of results and drawing conclusions

Report writing (introduction, methodology, results, discussion)

Preparation of charts, tables, and graphs

Presentation of research findings (seminar / viva)

RECOMMENDED BOOKS

Park's Textbook of Preventive and Social Medicine

Mahajan & Gupta – Textbook of Biostatistics

Kothari – Research Methodology: Methods and Techniques

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

INTERPERSONAL COMMUNICATION

L/T/P/C

1/-/-/1

Learning Objectives

1. Understand the basic concepts and theories of interpersonal communication.
2. Learn verbal, non-verbal, and listening skills for effective communication.
3. Gain knowledge of communication in relationships, workplace, and digital platforms with ethical awareness.

Learning Outcomes

1. Explain principles and models of interpersonal communication.
2. Demonstrate effective verbal, non-verbal, and listening skills.
3. Apply communication skills in personal, professional, and digital contexts ethically.

UNIT-I (2 hours)

- Introduction to Interpersonal Communication
- Overview of interpersonal communication theory.
- Key principles: sender, message, receiver, feedback, noise. Importance of communication in daily life.

UNIT-II (2 hours)

- Verbal Communication
- The role of language in communication.
- Choosing words carefully: Clarity, precision, and ambiguity. Influence of culture and context on verbal communication.

UNIT-III (2 hours)

- Non-Verbal Communication
- Body language, facial expressions, and gestures. Space, posture, and touch in communication.
- The role of non-verbal cues in conveying emotions

UNIT-IV (1 hour)

- Listening Skills
- Types of listening: Active, passive, reflective. Barriers to effective listening.
- Developing empathy through listening.

UNIT-V (1 hour)

- Self-Disclosure and Relationship Development The importance of self-disclosure in relationships. The Johari Window model.
- How self-disclosure affects trust and intimacy.

UNIT-VI (1 hour)

- Conflict in Interpersonal Communication Types of conflict: Productive vs. destructive. Conflict management styles.

- Strategies for resolving conflict in healthy ways.

UNIT-VII (1 hour)

- Cultural and Gender Differences in Communication
- Cultural influences on communication styles. Gender communication differences.
- Strategies for effective cross-cultural communication.

UNIT-VIII (2 hours)

- Communication in Close Relationships
- Communication patterns in romantic relationships, family, and friendships.
- Managing expectations and maintaining healthy communication in intimate relationships.

UNIT-IX (1 hour)

- Communication in the Workplace
- Interpersonal communication in professional settings.
- Navigating professional relationships and maintaining boundaries. Communication and leadership.

UNIT-X (2 hours)

- Digital Communication
- The role of technology in interpersonal communication. The impact of social media on relationships.
- Pros and cons of digital communication tools.
- The Ethics of Communication
- Ethical dilemmas in communication.
- Honesty, transparency, and privacy in conversations. Balancing openness with respect for others' boundaries.

Reference Textbook:

"Interpersonal Communication: Everyday Encounters" (Author: Julia T. Wood, 9th

CLINICAL POSTINGS (90 hours)

L/T/P/C

-/-/6/6

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

LEARNING OBJECTIVES

To provide integrated clinical exposure in emergency, pediatric, community, hospital, and research settings.

To develop basic patient care skills, communication skills, and clinical observation abilities.

To train students in teamwork, documentation, and safe clinical practice.

LEARNING OUTCOMES

Students will be able to assist in basic patient care activities across different hospital departments.

Students will demonstrate clinical observation, communication, and simple procedural skills.

Students will understand hospital functioning, community health activities, and basic research process.

SYLLABUS

Emergency room observation (triage, CPR, trauma care, IV line, oxygen therapy)

Pediatric ward and OPD observation (growth monitoring, immunization, neonatal care)

Community field visits (PHC, health camps, surveys, health education)

Hospital postings (OPD/IPD workflow, record keeping, infection control, patient registration)

Basic clinical research activities (data collection, questionnaire filling, simple analysis)

Communication practice (patient interaction, counseling observation, case discussion)

Participation in ward rounds and multidisciplinary team activities

Observation of clinical procedures under supervision

SEMESTER - VI

S.NO	SUBJECT CODE	SUBJECT	L	T	P	C	Max. Marks		
							INT	EXT	TOTAL
1		Non – Communicable Diseases	1	-	1	2	30	70	100
2		Geriatrics	2	-	1	3	30	70	100
3		Obstetrics & Gynaecology	2	-	1	3	30	70	100
4		Biostatistics and introduction to research methodology	2	-	-	2	30	70	100
5		Critical Care	1	-	1	2	30	70	100
6		Community Medicine & Clinical Research - III	2		1	3	30	70	100
7		Clinical Posting	-	-	5	5	100	-	100
8		Art of Being a Better Person	1	-	-	1	100	-	100
TOTAL			11		10	21	380	420	800

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

NON-COMMUNICABLE DISEASES (NCDs)

L/T/P/C

1/-/1/2

LEARNING OBJECTIVES

To provide detailed understanding of major non-communicable diseases and their growing public health impact globally and in India.

To develop clinical awareness regarding risk factors, early detection, screening methods, and prevention strategies.

To train students in lifestyle modification counseling and long-term disease management support.

LEARNING OUTCOMES

Students will be able to identify major NCDs and explain their pathophysiology and risk factors.

Students will assist in screening programs for early detection of chronic diseases.

Students will educate patients on prevention and lifestyle modification strategies.

UNIT I: Introduction to NCDs and Epidemiology (3 hours)

This unit explains the foundation of chronic diseases:

Definition and classification of NCDs

Major NCDs: cardiovascular diseases, diabetes, cancer, chronic respiratory diseases

Global burden and epidemiological transition from communicable to non-communicable diseases

Risk factors: modifiable (smoking, diet, physical inactivity) and non-modifiable (age, genetics)

Social determinants of health affecting NCDs

National and global trends in NCD prevalence

UNIT II: Cardiovascular Diseases (3 hours)

This unit focuses on heart and vascular disorders:

Hypertension: causes, pathophysiology, complications

Ischemic heart disease: angina, myocardial infarction

Stroke: ischemic and hemorrhagic types

Risk factors: obesity, smoking, cholesterol, diabetes

Basic diagnostic tools: ECG, BP monitoring

Prevention strategies including diet and exercise

UNIT III: Diabetes and Metabolic Disorders (3 hours)

Diabetes mellitus: type 1 and type 2 pathophysiology

Acute complications: hypoglycemia, diabetic ketoacidosis

Chronic complications: neuropathy, nephropathy, retinopathy

Obesity and metabolic syndrome

Dietary management and insulin basics

Screening guidelines for diabetes

UNIT IV: Chronic Respiratory Diseases and Cancer (3 hours)

Chronic obstructive pulmonary disease (COPD)

Bronchial asthma: triggers and management principles

Lung cancer and common cancers (breast, cervical, oral)

Smoking as a major risk factor

Screening methods: Pap smear, mammography basics

Prevention and early detection strategies

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT V: Prevention and National Programs (3 hours)

Levels of prevention (primary, secondary, tertiary)

Lifestyle modification strategies: diet, exercise, stress management

Health education techniques

National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)

Screening camps and community-based interventions

Role of physician assistant in NCD control

RECOMMENDED BOOKS

Park's Textbook of Preventive and Social Medicine

Harrison's Principles of Internal Medicine (selected chapters)

WHO NCD Guidelines

PRACTICAL (15 hours)

LEARNING OBJECTIVES

To develop skills in screening, early detection, and basic assessment of common NCDs.

To train students in lifestyle counseling and preventive health education.

To provide hands-on exposure in community and hospital-based NCD clinics.

LEARNING OUTCOMES

Students will be able to screen patients for major NCDs such as diabetes, hypertension, and obesity.

Students will demonstrate basic counseling skills for lifestyle modification and risk factor reduction.

Students will assist in NCD clinic activities and community screening programs.

PRACTICAL SYLLABUS

Blood pressure measurement and hypertension screening

Blood glucose testing using glucometer (random and fasting)

BMI calculation and obesity assessment

Waist–hip ratio measurement and risk evaluation

ECG observation and basic interpretation (normal vs abnormal patterns)

Risk factor assessment (smoking, diet, physical activity history)

Counseling patients for diabetes, hypertension, and lifestyle modification

Participation in NCD clinic activities in hospital/PHC

Screening camp participation for hypertension and diabetes

Health education sessions in community (diet, exercise, smoking cessation)

Observation of national programs like NPCDCS implementation

RECOMMENDED BOOKS

Park's Textbook of Preventive and Social Medicine

Harrison's Principles of Internal Medicine (selected chapters)

WHO Guidelines for Non-Communicable Diseases Prevention and Control

GERIATRICS

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To understand physiological, psychological, and social changes associated with aging.

To develop skills in assessment and management of common geriatric diseases.

To promote healthy aging and improve quality of life in elderly patients.

LEARNING OUTCOMES

Students will assess geriatric patients comprehensively.

Students will identify age-related diseases and complications.

Students will provide supportive and preventive elderly care.

UNIT I: Aging Process and Gerontology (6 hours)

Biological aging process

Physiological changes in organ systems

Psychological and social aspects of aging

Elderly population demographics

Concepts of active aging

UNIT II: Common Geriatric Diseases (6 hours)

Hypertension, diabetes in elderly

Osteoarthritis and osteoporosis

Dementia and Alzheimer's disease

Parkinson's disease

Falls and mobility issues

UNIT III: Geriatric Syndromes (6 hours)

Frailty syndrome

Delirium

Urinary incontinence

Pressure ulcers

Nutritional problems in elderly

UNIT IV: Mental Health in Elderly (6 hours)

Depression and anxiety disorders

Cognitive decline

Social isolation

Behavioral problems

Psychological counseling in elderly

UNIT V: Geriatric Care and Palliative Care (6 hours)

Elderly care systems

Home care and institutional care

Palliative care principles

End-of-life care

Role of caregiver and family support

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

RECOMMENDED BOOKS

API Textbook of Geriatrics

Oxford Handbook of Geriatric Medicine

PRACTICALS (15 hours)

LEARNING OBJECTIVES

To develop skills in assessment and basic care of elderly patients in clinical and community settings.

To train students in identifying geriatric problems such as falls, dementia, and frailty.

To improve communication and counseling skills while dealing with elderly patients and caregivers.

LEARNING OUTCOMES

Students will be able to perform basic geriatric assessment including mobility, cognition, and nutrition screening.

Students will identify common geriatric syndromes and assist in their basic management.

Students will demonstrate communication skills and provide health education for elderly care and support systems.

SYLLABUS

Geriatric patient history taking and general examination

Assessment of mobility and fall risk evaluation

Cognitive function screening (dementia and memory tests – basic tools)

Blood pressure, diabetes and chronic disease monitoring in elderly

Nutrition assessment in elderly patients

Identification of pressure ulcer risk and basic care observation

Observation of physiotherapy and rehabilitation exercises

Counseling elderly patients and caregivers on medication adherence

Participation in geriatric OPD and ward rounds

Home visit/community-based elderly care exposure

Palliative care observation and end-of-life care support

RECOMMENDED BOOKS

API Textbook of Geriatric Medicine

Oxford Handbook of Geriatric Medicine

Harrison's Principles of Internal Medicine (Geriatric sections)

OBSTETRICS & GYNAECOLOGY

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To understand female reproductive health and pregnancy care

To identify obstetric and gynaecological disorders

To develop skills in maternal and neonatal care support

LEARNING OUTCOMES

Assist in antenatal and postnatal care

Recognize pregnancy complications

Support safe maternal healthcare services

UNIT I: Female Reproductive System (6 hours)

1. Anatomy

External genitalia (vulva)

Internal organs: vagina, uterus, fallopian tubes, ovaries

Supporting ligaments of uterus

Blood supply, lymphatic drainage, nerve supply

2. Physiology

Functions of reproductive organs

Menstrual cycle:

Phases: menstrual, proliferative, secretory

Hormonal regulation (FSH, LH, estrogen, progesterone)

3. Puberty and Menopause

Changes during puberty

Hormonal changes

Menopause and postmenopausal changes

4. Ovulation and Fertilization

Process of ovulation

Fertilization and implantation

5. Breast

Structure and functions

Hormonal control of lactation

UNIT II: Antenatal Care and Pregnancy (6 hours)

1. Normal Pregnancy

Signs and symptoms

Diagnosis of pregnancy

Duration and stages (trimesters)

2. Physiological Changes in Pregnancy

Reproductive system

Cardiovascular, respiratory, urinary, GI changes

3. Antenatal Care

Objectives and importance

Schedule of antenatal visits

Nutritional requirements

Personal hygiene and exercise

Immunization (e.g., Tetanus prevention)

4. Antenatal Assessment

History taking

Physical examination

Abdominal examination (Leopold's maneuvers)

Investigations (blood, urine, ultrasound)

5. Minor Disorders of Pregnancy

Nausea and vomiting

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Backache, constipation

Edema, heartburn

UNIT III: Normal Labor and Delivery (6 hours)

1. Definition and Onset of Labor

True vs false labor

Signs of labor

2. Stages of Labor

First stage (dilatation)

Second stage (expulsion)

Third stage (placental delivery)

3. Mechanism of Labor

Movements of fetal head:

Engagement

Descent

Flexion

Internal rotation

Extension

External rotation

4. Management of Normal Labor

Preparation of mother

Monitoring (partograph)

Conduct of delivery

Immediate newborn care

5. Episiotomy

Types and indications

Procedure and care

UNIT IV: Obstetric Complications (6 hours)

1. Early Pregnancy Complications

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Abortion (types and management)

Ectopic pregnancy

Hydatidiform mole

2. Late Pregnancy Complications

Preeclampsia and eclampsia

Placenta previa

Abruptio placentae

3. Complications During Labor

Prolonged labor

Obstructed labor

Fetal distress

4. Postpartum Complications

Postpartum hemorrhage

Puerperal sepsis

Subinvolution of uterus

5. High-Risk Pregnancy

Identification and management

Referral system

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT V: Gynecological Disorders and Family Planning (6 hours)

1. Menstrual Disorders

Amenorrhea

Dysmenorrhea

Menorrhagia

2. Infections of Reproductive Tract

Pelvic inflammatory disease

Sexually transmitted infections (STIs)

3. Benign and Malignant Conditions

Fibroids (uterine leiomyoma)

Ovarian cysts

Cervical cancer

Breast cancer

4. Infertility

Causes (male & female)

Investigations and management

5. Family Planning

Temporary methods:

Barrier (condoms)

Hormonal (oral pills, injectables)

IUCD

Permanent methods:

Tubectomy

Vasectomy

Counseling and education

RECOMMENDED BOOKS

Dutta Obstetrics

Shaw's Gynaecology

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

PRACTICAL (15 hours)

LEARNING OBJECTIVES

Understand normal and abnormal conditions of pregnancy, labor, and reproductive health

Develop skills in maternal and newborn care

Promote family planning and reproductive health education

LEARNING OUTCOMES

Perform antenatal care and assist in normal delivery

Identify complications and provide basic management

Educate patients on family planning and health practices

PRACTICAL SYLLABUS

Pelvic and breast examination (demo)

Antenatal assessment & abdominal examination

Monitoring labor using partograph

Assisting/observing normal delivery

Newborn care

Identification of high-risk cases

Emergency management (PPH, eclampsia)

Family planning counseling & contraceptive demonstration

Assisting in gynecological procedures

RECOMMENDED BOOKS

D.C. Dutta's Textbook of Obstetrics & D.C. Dutta's Textbook of Gynecology

Myles Textbook for Midwives

Essentials of Obstetrics and Gynecological Nursing by Shanti Wadhwa

BIOSTATISTICS & INTRODUCTION TO RESEARCH METHODOLOGY

L/T/P/C

2/-/-/2

MALLA REDDY VISHWAVIDYAPEETH

Learning Objectives

1. Understand basic concepts and steps involved in research methodology and study design.
2. Learn principles of qualitative, quantitative, and mixed-method research along with data collection techniques.
3. Gain knowledge of biostatistics including probability, descriptive and inferential statistics used in health sciences.

Learning Outcomes

1. Explain the research process, including problem identification, literature review, and proposal writing.
2. Differentiate between research methods and apply appropriate sampling and data collection techniques.
3. Analyze and interpret basic statistical data using descriptive and inferential methods.

1.Introduction to the Process of Conducting Research (5 hours)

- Introduction, Steps in the Process of Research, identifying a hypothesis and/or research problem, specifying a purpose, Research Designs, creating research questions, Review of literature, Ethics of research and informed consent, Research proposal writing & components of Research paper.

2.Introduction to Qualitative, Quantitative and Mixed methods Research (5 hours)

- Essence of Qualitative Data, Sampling, Collection Techniques, Biography, Essence of Quantitative Data, Collection and Analysis Techniques, Choosing a good instrument, Interval and Ratio Scales, Validity and Reliability, Essence of Mixed Methods, Advantages, Design Components, Explanatory Mixed Methods Frameworks.

3.Epidemiological Methods (5 hours)

- Measuring disease frequency, Descriptive and analytical studies-observational and experimental studies and Biases in Epidemiological Studies

4.Introduction to Probability, distributions and sampling (5 hours)

- Probability, addition and multiplicative theorems, problems, Probability Distribution-Binomial, Poisson, Normal, Applications to health sciences, Sampling methods, uses of sampling, Sample size

5.Introduction to Descriptive Statistics (5 hours)

- Introduction, Summarizing and describing a collection of data, Univariate and bivariate analysis, Mean, mode and standard deviation, Percentages and Ratios, Histograms, identifying randomness and uncertainty in data, summarizing biological data, Identifying the dependent and independent variables, Confidence levels

6.Introduction to Inferential Statistics (5 hours)

- Drawing inference from data, Estimation, testing of hypothesis, Type I & type II errors, power and p-value, modelling assumptions, Identifying Patterns, Regression analysis, t- test, Analysis of Variance, Correlations, Chi-square, Non-parametric tests

MALLA REDDY VISHWAVIDYAPEETH
Deemed to be University

REFERENCES

1. Essentials Of Biostatistics & Research Methodology by Indranil Saha, Bobby Paul · 2020
2. Biostatistics & Research Methodology by G Nageswara Rao · 2018 ·
3. Introduction To Biostatistics and Research Methods by P. S. S. Sundar Rao, J. Richard · 2012

CRITICAL CARE

L/T/P/C

1/-/1/2

LEARNING OBJECTIVES

To understand the organization and functioning of Intensive Care Units (ICU) and monitoring systems.

To develop knowledge of life-support techniques including ventilation, resuscitation, and emergency care.

To train students in recognizing and assisting in the management of critically ill patients.

LEARNING OUTCOMES

Students will be able to explain ICU setup, patient monitoring, and basic life-support systems.

Students will assist in the management of critically ill patients including ventilation and resuscitation.

Students will identify critical emergencies and support appropriate interventions under supervision.

UNIT I: ICU Setup and Monitoring (3 hours)

Definition and scope of critical care medicine

Structure and organization of ICU (medical, surgical, neonatal ICU)

ICU design: bed layout, equipment, infection control zones

Roles of healthcare team in ICU (doctors, nurses, physician assistants)

Patient monitoring systems:

- Vital signs monitoring (pulse, BP, respiration, temperature)
- Cardiac monitoring (ECG basics)
- Oxygen saturation (pulse oximetry)

Invasive monitoring (basic concept): central venous pressure (CVP)

Infection control practices in ICU (hand hygiene, sterilization)

UNIT II: Mechanical Ventilation (3 hours)

Indications for mechanical ventilation

Types of ventilators and basic components

Modes of ventilation (volume control, pressure control – basic understanding)

Basic ventilator settings (tidal volume, respiratory rate, FiO_2)

Oxygen therapy methods (nasal cannula, mask, ventilator support)

Complications of mechanical ventilation (barotrauma, infection)

Weaning from ventilator (basic concept)

UNIT III: Shock and Resuscitation (3 hours)

Definition and types of shock (hypovolemic, cardiogenic, septic, anaphylactic)

Pathophysiology of shock

Clinical features and early recognition

Fluid resuscitation principles

Use of emergency drugs (vasopressors – basic concept)

Cardiopulmonary resuscitation (CPR) – adult basic life support

Advanced life support overview

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

UNIT IV: Multi-Organ Failure (3 hours)

Definition and causes of multi-organ dysfunction syndrome (MODS)

Organ systems involved (respiratory, renal, cardiovascular, CNS)

Acute respiratory distress syndrome (ARDS)

Acute kidney injury (AKI) basics

Sepsis and septic shock

Monitoring and supportive care in organ failure

Prognosis and complications

UNIT V: Critical Care Emergencies (3 hours)

Acute respiratory failure

Cardiac arrest and arrhythmias (basic recognition)

Poisoning and drug overdose management

Severe infections and sepsis management

Trauma and polytrauma care basics

Electrolyte imbalance emergencies

Role of rapid response team in hospitals

RECOMMENDED BOOKS

Marino's The ICU Book

Oxford Handbook of Critical Care

Irwin & Rippe's Intensive Care Medicine

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

PRACTICAL SYLLABUS (15 hours)

LEARNING OBJECTIVES

To develop basic skills in monitoring and caring for critically ill patients in ICU settings.

To train students in assisting life-support procedures such as oxygen therapy, ventilation, and resuscitation.

To provide hands-on exposure to ICU equipment, patient monitoring, and emergency care practices.

LEARNING OUTCOMES

Students will be able to monitor vital signs and assist in ICU patient care under supervision.

Students will demonstrate basic skills in oxygen therapy, airway management, and CPR assistance.

Students will identify critical conditions and assist healthcare teams in emergency interventions.

PRACTICAL SYLLABUS

ICU posting: observation of ICU setup, equipment, and workflow

Monitoring of vital signs (pulse, BP, respiratory rate, temperature)

Pulse oximetry and ECG monitoring (basic observation)

Oxygen therapy (nasal cannula, masks) and nebulization

Assistance in airway management (positioning, suctioning)

Basic understanding and observation of mechanical ventilation

Assisting in CPR and Basic Life Support (BLS)

IV line observation and fluid administration basics

Infection control practices (hand hygiene, PPE use)

Monitoring intake and output (fluid balance chart)

Observation of critically ill patients (shock, sepsis, respiratory failure)

Participation in ICU rounds and case discussions

RECOMMENDED BOOKS

Marino's The ICU Book

Oxford Handbook of Critical Care

Irwin & Rippe's Intensive Care Medicine

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

COMMUNITY MEDICINE & CLINICAL RESEARCH – III

L/T/P/C

2/-/1/3

LEARNING OBJECTIVES

To develop advanced understanding of epidemiology, biostatistics, and research methodologies used in clinical and public health research.

To train students in designing research studies and understanding clinical trials.

To create awareness about ethical principles and regulatory requirements in medical research.

LEARNING OUTCOMES

Students will be able to apply advanced epidemiological concepts in disease investigation and public health planning.

Students will analyze and interpret biomedical data using statistical methods.

Students will understand clinical trial processes and follow ethical guidelines in research practice.

UNIT I: Advanced Epidemiology (6 hours)

Advanced concepts of epidemiology and its role in modern healthcare

Measures of association: relative risk, odds ratio, attributable risk

Disease causation models and epidemiological theories

Outbreak investigation steps and epidemic control measures

Surveillance systems: active, passive, sentinel surveillance

Screening of diseases: sensitivity, specificity, predictive values (advanced application)

Epidemiological transition and global disease burden patterns

UNIT II: Biostatistics Applications (6 hours)

Application of statistical methods in healthcare research

Types of variables and data distribution

Measures of central tendency and dispersion (revision + application)

Probability concepts in medical research

Correlation and regression analysis (basic interpretation)

Statistical tests (conceptual introduction): chi-square test, t-test

Data interpretation in clinical and epidemiological studies

Use of software tools in biostatistics (basic awareness)

UNIT III: Research Design (6 hours)

Meaning and importance of research design in healthcare

Types of research: descriptive, analytical, experimental

Observational studies: case-control and cohort studies (detailed)

Cross-sectional studies and longitudinal studies

Sampling techniques and sample size determination (basic concept)

Bias in research: selection bias, information bias, confounding

Formulation of research question, hypothesis, and objectives

Structure of a research protocol

UNIT IV: Clinical Trials (6 hours)

Definition and phases of clinical trials (Phase I–IV)

Pre-clinical and clinical research transition

Randomized controlled trials (RCTs): design and importance

Blinding and randomization techniques

Placebo and control groups

Adverse drug reaction monitoring

Good Clinical Practice (GCP) guidelines overview

Role of regulatory authorities in clinical trials

UNIT V: Ethics in Research (6 hours)

Ethical principles in biomedical research (autonomy, beneficence, non-maleficence, justice)

Informed consent process and documentation

Confidentiality and patient privacy

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Role and structure of Institutional Ethics Committee (IEC)

Ethical issues in clinical trials and human research

Research misconduct (plagiarism, fabrication, falsification)

National and international ethical guidelines (ICMR, WHO principles)

Safety of research participants

RECOMMENDED BOOKS

Park's Textbook of Preventive and Social Medicine

Kothari – Research Methodology: Methods and Techniques

Mahajan – Methods in Biostatistics

Fletcher – Clinical Epidemiology (optional advanced reference)

PRACTICAL (15 hours)

LEARNING OBJECTIVES

To develop practical skills in conducting advanced research activities in clinical and community settings.

To train students in data handling, statistical analysis, and interpretation of research findings.

To develop competency in scientific report writing and presentation of research work.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

LEARNING OUTCOMES

Students will be able to design and participate in structured research studies under supervision.

Students will perform basic data analysis and interpret results using biostatistical tools.

Students will prepare and present a complete research report following ethical and scientific standards.

PRACTICAL SYLLABUS

Selection of advanced research topic in clinical or community setting

Preparation of research protocol (aims, hypothesis, methodology, tools)

Designing and validating data collection instruments (questionnaire/checklist)

Ethical clearance process (observation of IEC submission)

Data collection from hospital or community-based studies

Data coding, entry, and tabulation

Application of basic statistical tools (mean, SD, chi-square, correlation – basic level)

Use of software/tools for data analysis (basic introduction)

Interpretation of research results

Preparation of tables, graphs, and charts

Scientific report writing (IMRAD format: Introduction, Methods, Results, Discussion)

Research presentation (seminar/viva/defense)

RECOMMENDED BOOKS

Kothari – Research Methodology: Methods and Techniques

Mahajan – Methods in Biostatistics

Park's Textbook of Preventive and Social Medicine

WHO Research Methodology Guidelines (reference)

ART OF BEING A BETTER PERSON

L/T/P/C

1/-/-/1

Learning Objectives

1. Understand ethical living, empathy, and personal values in daily life.
2. Learn skills for emotional intelligence, kindness, and positive relationships.
3. Develop awareness of social responsibility and personal growth practices.

Learning Outcomes

1. Explain key concepts such as empathy, integrity, and emotional intelligence.
2. Demonstrate improved self-awareness and positive interpersonal behavior.
3. Apply ethical and compassionate practices in personal and social life.

UNIT-I (2 hour)

- Introduction to Being a Good Human
- Defining "goodness" and ethical living
- Overview of moral philosophies: Utilitarianism, Deontology, Virtue Ethics The role of self-awareness in personal growth

  Activity: Reflective journaling on what "being good" means to you.

UNIT-II (2 hour)

- The Power of Empathy
- Understanding empathy vs. sympathy
- The science behind empathy and its benefits for social connections Techniques for cultivating empathy in everyday life

  Activity: Empathy-building exercises and discussions.

UNIT-III (2 hour)

- Emotional Intelligence (EQ)
- What is Emotional Intelligence? (Self-awareness, self-regulation, motivation, empathy, and social skills) The role of EQ in personal and professional relationships
- Strategies to improve emotional intelligence

  Activity: Self-assessment of emotional intelligence and EQ development exercises.

UNIT-IV (1 hour)

- Compassion and Kindness
- The science of kindness: How kindness benefits us and others
- Practicing kindness in small, everyday actions
- Overcoming barriers to kindness (e.g., stress, biases, indifference)

  Activity: "Random Acts of Kindness" challenge.

UNIT-V (1 hour)

- Personal Integrity and Honesty
- The importance of integrity in personal and professional life Consequences of dishonesty and lack of integrity
- How to align actions with values

  Activity: Case study discussion on ethical dilemmas and decision-making.

UNIT-VI (1 hour)

- Building Positive Relationships
- Communication skills for healthy relationships Setting boundaries and respecting others' boundaries Conflict resolution and forgiveness

  Activity: Role-playing scenarios to practice healthy communication.

UNIT-VII (1 hour)

- Responsibility and Accountability

- The concept of personal responsibility in life Accountability in both personal and community contexts How to take ownership of mistakes and learn from them Activity: Reflect on past mistakes and plan for growth.

UNIT-VIII (1 hour)

- Contributing to the Community and Society
- The role of individuals in building strong communities Volunteering, activism, and social responsibility
- The impact of small, positive actions on a larger scale
  Activity: Brainstorming session on potential ways to contribute to the local community.

UNIT-IX (1 hour)

- Practicing Gratitude and Contentment
- The psychological and emotional benefits of gratitude Practicing contentment in a consumer-driven world Techniques for cultivating a mindset of abundance Activity: Gratitude journal and daily reflection.

UNIT-X (1 hour)

- Living with Purpose and Meaning
- Discovering personal values and purpose
- The intersection of passion, skills, and service Creating a life plan that aligns with core values Activity: Create a personal mission statement.

UNIT-XI (1 hour)

- Overcoming Negative Traits: Greed, Anger, and Envy The psychology behind negative emotions and traits How greed, anger, and envy affect our well-being
- Strategies for managing and transforming negative emotions
  Activity: Mindfulness meditation and reflection exercises.

UNIT-XII (1 hour)

- Bringing It All Together: A Life of Goodness Review of key learnings from the course Creating a vision for continuous personal growth
- How to maintain a positive and ethical life in a challenging world

Reference Textbook

How to Win Friends and Influence People" by Dale Carnegie

The Seven Habits of Highly Effective People" by Stephen R. Covey

CLINICAL POSTINGS (75 hours)

L/T/P/C

-/-/5/5

LEARNING OBJECTIVES

To provide real-time clinical exposure in multiple specialties

To develop hands-on patient care skills

To improve communication and teamwork in hospital settings

LEARNING OUTCOMES

Assist in patient management

Perform basic clinical procedures

Work effectively in healthcare teams

POSTING AREAS

1. ICU AND EMERGENCY POSTING

Observation of triage system and emergency patient prioritization

Assistance in Basic Life Support (BLS) and Cardiopulmonary Resuscitation (CPR)

Monitoring of critically ill patients (vitals, ECG, pulse oximetry)

Oxygen therapy and airway management assistance

Observation of ventilator setup and mechanical ventilation basics

Trauma care exposure (fractures, burns, road traffic accidents)

Assistance in IV cannulation and emergency drug administration

Participation in emergency case discussions and rounds

2. OBSTETRICS & GYNECOLOGY POSTING

Antenatal care (ANC) check-ups observation

Assistance in basic obstetric examination (fundal height, fetal heartbeat)

Observation of normal labor and delivery procedures

Postnatal care (PNC) monitoring of mother and newborn

Identification of high-risk pregnancies

Family planning counseling and contraceptive methods exposure

Observation of gynecological OPD cases

Participation in maternal health awareness activities

3. GERIATRICS POSTING

Assessment of elderly patients (physical, mental, functional status)

Monitoring of chronic diseases in elderly (diabetes, hypertension)

Fall risk assessment and mobility evaluation

Cognitive screening (dementia and memory tests)

Nutrition and hydration assessment in elderly

Observation of physiotherapy and rehabilitation sessions

Palliative care and end-of-life care exposure

Counseling elderly patients and caregivers

4. NCD CLINICS POSTING

Screening for hypertension, diabetes, obesity

BMI calculation and risk factor assessment

Blood pressure and blood sugar monitoring

Lifestyle counseling (diet, exercise, smoking cessation)

ECG and basic cardiac risk assessment observation

Participation in NCD screening camps

Patient education on chronic disease prevention

Follow-up care observation for chronic patients

5. COMMUNITY HEALTH CENTERS (PHC/CHC) POSTING

Participation in immunization programs (UIP)

Maternal and child health services observation

Health education sessions in community

Family welfare and sanitation awareness programs

Field surveys and community health data collection

Participation in national health programs (TB, malaria, etc.)

Environmental health and hygiene assessment

Rural health care delivery system observation

6. RESEARCH UNITS POSTING

Observation of ongoing clinical research studies

Data collection and questionnaire administration

Patient recruitment for research studies

Basic data entry and documentation

Understanding ethical clearance procedures (IEC process)

Participation in research protocol discussions

Introduction to clinical trials methodology

Report writing and data interpretation exposure

RECOMMENDED BOOKS

WHO Clinical Guidelines

NCAHP Skill Manuals

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)

SEMESTER – VII

Course Code	Course Title	Credits/Week			Hours/Semester			Assesments		Total
		L	P	C	L	T/P	Total	INT	EXT	
	Internship	2	20	22	30	900	930	-	100	100
	Project work		06	06		270	270		100	100
Total		**2**	**26**	**28**	**30**	**1170**	**1200**	**-**	**200**	**200**

1. INTERNSHIP

L/T/P/C

2/-/20/22

Learning Objectives

1. To apply theoretical medical knowledge in real clinical settings.
2. To develop clinical examination and patient management skills.
3. To enhance communication with patients, caregivers, and healthcare teams.
4. To understand hospital protocols, ethics, and multidisciplinary care.

Course Outcomes

1. Demonstrate competency in basic clinical procedures and patient assessment.
2. Assist physicians effectively in diagnosis and treatment planning.
3. Exhibit professional behavior, ethics, and patient-centered care.
4. Integrate clinical knowledge with practical decision-making skills.

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Syllabus

Unit 1: General Medicine (6–8 Weeks)

- Patient history taking and physical examination
- Diagnosis and management of common diseases (fever, diabetes, hypertension)
- Interpretation of lab reports (CBC, LFT, RFT)
- Emergency case handling basics

Unit 2: General Surgery (4–6 Weeks)

- Pre-operative and post-operative care
- Sterilization and infection control
- Assisting in minor surgical procedures
- Wound dressing and suturing basics

Unit 3: Emergency & Critical Care (4 Weeks)

- Basic Life Support (BLS) & CPR
- Monitoring vital signs and emergency response
- Trauma and shock management
- ICU protocols and patient monitoring

Unit 4: Pediatrics & Obstetrics (4 Weeks)

- Pediatric assessment and immunization schedules
- Growth and developmental monitoring
- Basic antenatal and postnatal care
- Assisting in normal delivery

Unit 5: Diagnostics & Specialty Posting (4 Weeks)

- ECG, X-ray, and ultrasound basics
- Laboratory sample collection techniques
- Exposure to specialties (cardiology, nephrology, etc.)
- Patient counseling and follow-up care

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

2. PROJECT WORK / RESEARCH

L/T/P/C

-/-/6/6

Learning Objectives

1. To develop research skills in medical and healthcare fields.
2. To understand research methodology and data collection techniques.

3. To enhance critical thinking and analytical abilities.
4. To prepare and present a scientific research report.

Course Outcomes

1. Design and conduct a basic research study in healthcare.
2. Analyze and interpret clinical or survey data effectively.
3. Prepare a structured research report following scientific guidelines.
4. Present findings confidently using evidence-based conclusions.

Syllabus

Unit 1: Introduction to Research

- Definition and importance of research
- Types of research (clinical, observational, experimental)
- Research ethics and consent

Unit 2: Research Methodology

- Problem identification and hypothesis formulation
- Study design (cross-sectional, cohort, case-control)
- Sampling methods and sample size

Unit 3: Data Collection & Tools

- Questionnaire design
- Clinical data collection methods
- Use of medical records and databases

Unit 4: Data Analysis

- Basic statistics (mean, median, mode)
- Graphs and charts representation
- Interpretation of results

Unit 5: Report Writing & Presentation

- Structure of research report (IMRAD format)
- Referencing styles (Vancouver/APA)
- Presentation skills (PPT/Poster)
- Viva voce preparation

SEMESTER – VIII

Course Code	Course Title	Credits/Week			Hours/Semester			Assesments		Total
		L	P	C	L	T/P	Total	INT	EXT	
	Internship	2	20	22	30	900	930	-	100	100
	Project work		06	06		270	270		100	100
Total		**2**	**26**	**28**	**30**	**1170**	**1200**	**-**	**200**	**200**

1. INTERNSHIP

L/T/P/C

2/-/20/22

Learning Objectives

5. To apply theoretical medical knowledge in real clinical settings.
6. To develop clinical examination and patient management skills.
7. To enhance communication with patients, caregivers, and healthcare teams.
8. To understand hospital protocols, ethics, and multidisciplinary care.

Course Outcomes

5. Demonstrate competency in basic clinical procedures and patient assessment.
6. Assist physicians effectively in diagnosis and treatment planning.
7. Exhibit professional behavior, ethics, and patient-centered care.
8. Integrate clinical knowledge with practical decision-making skills.

Syllabus

Unit 1: General Medicine (6–8 Weeks)

- Patient history taking and physical examination

- Diagnosis and management of common diseases (fever, diabetes, hypertension)
- Interpretation of lab reports (CBC, LFT, RFT)
- Emergency case handling basics

Unit 2: General Surgery (4–6 Weeks)

- Pre-operative and post-operative care
- Sterilization and infection control
- Assisting in minor surgical procedures
- Wound dressing and suturing basics

Unit 3: Emergency & Critical Care (4 Weeks)

- Basic Life Support (BLS) & CPR
- Monitoring vital signs and emergency response
- Trauma and shock management
- ICU protocols and patient monitoring

Unit 4: Pediatrics & Obstetrics (4 Weeks)

- Pediatric assessment and immunization schedules
- Growth and developmental monitoring
- Basic antenatal and postnatal care
- Assisting in normal delivery

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Unit 5: Diagnostics & Specialty Posting (4 Weeks)

- ECG, X-ray, and ultrasound basics
- Laboratory sample collection techniques
- Exposure to specialties (cardiology, nephrology, etc.)
- Patient counseling and follow-up care

2. PROJECT WORK / RESEARCH

L/T/P/C

-/-/6/6

Learning Objectives

5. To develop research skills in medical and healthcare fields.
6. To understand research methodology and data collection techniques.
7. To enhance critical thinking and analytical abilities.
8. To prepare and present a scientific research report.

Course Outcomes

5. Design and conduct a basic research study in healthcare.
6. Analyze and interpret clinical or survey data effectively.
7. Prepare a structured research report following scientific guidelines.
8. Present findings confidently using evidence-based conclusions.

Syllabus

Unit 1: Introduction to Research

- Definition and importance of research
- Types of research (clinical, observational, experimental)
- Research ethics and consent

MALLA REDDY VISHWAVIDYAPEETH (Deemed to be University)

Unit 2: Research Methodology

- Problem identification and hypothesis formulation
- Study design (cross-sectional, cohort, case-control)
- Sampling methods and sample size

Unit 3: Data Collection & Tools

- Questionnaire design
- Clinical data collection methods
- Use of medical records and databases

Unit 4: Data Analysis

- Basic statistics (mean, median, mode)
- Graphs and charts representation
- Interpretation of results

Unit 5: Report Writing & Presentation

- Structure of research report (IMRAD format)
- Referencing styles (Vancouver/APA)
- Presentation skills (PPT/Poster)
- Viva voce preparation

MALLA REDDY
VISHWAVIDYAPEETH
(Deemed to be University)