

Undergraduate Qualifications

B.Voc in in Patient Care Management

As per guidelines of the National Higher Education Qualification Framework
(NHEQF)

Year	Qualification Title	NCrF Level
Year-1	Undergraduate Certificate in in Patient Care Management	Level 4.5
Year-2	Undergraduate Diploma in Patient Care Management	Level 5
Year-3	Bachelor of Vocation in Patient Care Management	Level 5.5



School of Healthcare and Allied Sciences

(Academic Year: 2025- 2026)

Program Overview

The B.Voc in Patient Care Management is a specialized undergraduate program designed to train students in managing and delivering high-quality patient care in healthcare settings. This three-year program combines theoretical knowledge with hands-on training to prepare students for the complex and demanding environment of patient care. The curriculum focuses on developing essential skills in patient care techniques, healthcare administration, communication, and medical ethics. Students are trained to handle patient interactions, assist healthcare professionals, and manage patient records, ensuring smooth operations within hospitals, clinics, and other healthcare facilities.

The program covers a broad range of subjects, including hospital management, healthcare laws, patient psychology, medical terminology, and emergency care. Practical training is an integral part of the program, with students participating in internships and clinical practice to gain firsthand experience in patient care. They learn to monitor patient health, assist with medical procedures, and provide emotional and physical support to patients and their families. The program also emphasizes the importance of patient rights, confidentiality, and effective communication, ensuring that graduates are well-equipped to handle patient concerns with professionalism and empathy.

Scope

1. **Employment in Healthcare Facilities** – Graduates can work as patient care coordinators, hospital administrators, and healthcare assistants in hospitals, nursing homes, and rehabilitation centers.
2. **Home Healthcare and Assisted Living** – Opportunities exist in home healthcare services and elderly care facilities, where professionals provide direct patient support.
3. **Healthcare Administration** – Graduates can take on managerial roles in hospitals and healthcare centers, overseeing patient care services and improving healthcare delivery.
4. **Public Health and Community Care** – Careers in public health agencies and NGOs involve coordinating patient care programs, health camps, and community outreach.
5. **Higher Education and Specialization** – Those interested in academic growth can pursue postgraduate studies or specialized certifications in healthcare management, nursing, or hospital administration.

Career Path

Entry-Level

1. Patient Care Assistant
2. Ward Assistant
3. Patient Relations Executive

Mid-Level

1. Senior Patient Care Coordinator
2. Floor Supervisor
3. Admission & Discharge Officer

Senior-Level

1. Patient Care Manager
2. Inpatient Services Coordinator
3. Quality Assurance Officer (Patient Care)

Program Learning Outcomes

Program Specific Outcomes	
	<i>A Graduate of B.Voc in Patient Care Management in should be able to:</i>
PSO1	Demonstrate the acquisition of comprehensive knowledge and coherent understanding of patient care management in a broad multidisciplinary context, their different learning areas, their linkages with related fields of study, and current and emerging developments associated with the industry.
PSO2	Demonstrate the acquisition of practical, professional, and procedural knowledge required for carrying out professional or highly skilled work/tasks related to healthcare sector including knowledge required for undertaking self-employment initiatives, and knowledge and mind-set required for entrepreneurship involving enterprise creation, improved product development, or a new mode of organization.
PSO3	Demonstrate the acquisition of skills in areas related to specialization in healthcare in a broad multidisciplinary context, including wide-ranging practical skills, involving variable routine and non-routine contexts relating to the patient care management field.
PSO4	Demonstrate the acquisition of the capacity to extrapolate from what has been learned, translate concepts to real-life situations and apply acquired competencies in new/unfamiliar contexts, rather than merely replicate curriculum content knowledge, to generate solutions to specific problems.

Generic Program Outcomes	
	A graduate of B.Voc in Patient Crae Management should be able to:
PO5	Demonstrate the capability for complex problem-solving
PO6	Demonstrate the capability for critical thinking
PO7	Demonstrate the ability for creativity
PO8	Demonstrate the skills that enable them to communicate effectively
PO9	Demonstrate the capability for analytical reasoning/thinking
PO10	Demonstrate the ability for coordinating and collaborating with others
PO11	Demonstrate the capability for leadership readiness
PO12	Demonstrate 'learning how to learn" skills
PO13	Demonstrate the capability for digital and technological skills
PO14	Demonstrate multicultural competence and inclusive spirit
PO15	Demonstrate the acquisition of knowledge and attitude that are required for value inculcation
PO16	Demonstrate the ability for autonomy, responsibility, and accountability
PO17	Demonstrate the acquisition of and ability to apply the knowledge, skills, attitudes, and values required to take appropriate actions for environmental awareness and action
PO18	Demonstrate the capability to participate in community-engaged services/ activities for promoting the wellbeing of society.
PO19	Demonstrate the ability to identify with or understand the perspective, experiences, or points of view of another individual or group, and to identify and understand other people's emotions

Abbreviation And Definition

Abbreviation	Definition
MDP	Multidisciplinary
AEC	Ability Enhancement Courses
VAC	Value Added Courses
SEC	Skill Enhancement Courses
MC	Major (Core)
MD	Major (Discipline)
MIP	Major (Industry Practice)
VETI	Vet (Industry Immersion)
MI	Minor (Electives)

Semester Wise Structure & Curriculum

UG Certificate in Patient Care Management | NCrf – 4.5

Semester-1							
	Course Title	Category	L	P	Pr	Credits	
	Human Anatomy and Physiology	MC-1	0	3	0	3	
	Fundamentals of Patient Care	MC-2	3	0	0	3	
	Concept of Health and Hospital Services	MDP	3	0	0	3	
	Professional Skills (Team Skills)	SEC	3	0	0	3	
	On the Job Training – 1	MIP	0	0	8	8	
	Total		9	3	8	20	

Semester-2							
	Course Title	Category	L	P	Pr	Credits	
	Basics of Biochemistry	MC-3	0	3	0	3	
	Microbiology	MC-4	0	3	0	3	
	Fundamentals of Business	MDP	3	0	0	3	
	Employability Skills (Basics)	SEC	3	0	0	3	
	On the Job Training-2	MIP	0	0	8	8	
			6	6	8	20	

UG Diploma in Patient Care Management | NCrf – 5.0

Semester-3							
	Course Title	Category	L	P	Pr	Credits	
	Clinical aspects of Pathology	MC-5	0	3	0	3	
	Healthcare Support and Rehabilitation	MC-6	3	0	0	3	
	Environmental Sciences	VAC	3	0	0	3	
	Communication Skills (English)	SEC	3	0	0	3	
	On the Job Training – 3	MIP	0	0	8	8	
	Total		9	3	8	20	

Semester-4							
	Course Title	Category	L	P	Pr	Credits	
	Mental Health Care	MC-7	3	0	0	3	
	Patient Safety and Emergency Management	MC 8	3	0	0	3	
	Cultural Diversity in the Indian Society	VAC-1	3	0	0	3	
	Professional Skills (Career Skills)	SEC-3	3	0	0	3	
	On the Job Training – 4	MIP	0	0	8	8	
			12	0	8	20	

B.Voc in Patient Care Management | NCrf – 5.5

Semester-5							
	Course Title	Category	L	P	Pr	Credits	
	Geriatric Care	MC 9	3	0	0	3	
	Medical Record Keeping	MC 10	3	0	0	3	
	General Medicine and Surgery	MC 11	3	0	0	3	
	Business Communication	AEC	0	4	0	4	
	On the Job Training – 5	MIP	0	0	8	8	
	Total		9	4	8	21	

Semester-6							
	Course Title	Category	L	P	Pr	Credits	
	Dietary Management	MC 12	3	0	0	3	
	Biomedical Waste Management	MC 13	3	0	0	3	
	Universal Human Values	VAC	3	0	0	3	
	On the Job Training – 6	MIP	0	0	12	12	
			9	0	12	21	

Curriculum (Course-wise)

Semester I

Course Code	Course Name	Human Anatomy and Physiology	Course Category	Skill	Major	L	P	Pr	C
						0	3	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Recall the basic structures and functions of major organs and systems in the human body.	1
CLO2	Explain the relationship between the structure and function of organ systems.	2
CLO3	Apply knowledge of anatomy and physiology to describe physiological processes.	3
CLO4	Analyze the interrelationships between organ systems in maintaining health.	4
CLO5	Evaluate the impact of anatomical or physiological dysfunctions on health.	5

Module 1: Human anatomy and physiology

Introduction to anatomy and physiology - Definition, difference between structures and functions. Different terms used in anatomy. Levels of body organization Characteristics of the living human organism – Eleven systems of the human body and its associated organs. Scopes of human anatomy and physiology-Scopes and career prospects, branches and divisions.

Module 2: Cell, tissue, bones and skeletal muscular system

Organization of the human body- Cell, cellular organelles, structures and functions, Cell division processes. Types of tissues, their structure and functions. Skeletal system- structure and function of different bones and joints, skeletal system of humans, position of bones and skeletons. Muscular system- Structure, composition, and functions of different muscles and their positions.

Module 3: Blood, Lymph, Circulatory and Cardiovascular system

Blood- Structure, composition, functions, synthesis processes, mechanism, and normal ranges of blood and blood components. Lymphatic system- composition and circulation process of lymph, structure and functions of different associated organs of the lymphatic system. Cardiovascular system- Structure, position, and functions of the heart, veins, and arterial supplies, different blood circulation systems, cardiac output, and cardiac cycle.

Module 4: Respiratory, Urinary and Digestion system

Respiratory System- identifying different organs, their structure, position, and functions involved in the respiratory system, respiratory mechanism, lungs capacity. Urinary System- structure and function of organs of the urinary system, urine composition, mechanism of urination, filtration, and

storage process. Digestion System- structure and functions of organs involved in the digestion process, their metabolic activity, associated organs of digestion and their structure and functions.

Module 5: Endocrine, Nervous system and Reproductive system

Endocrine Glands- definition of endocrine glands, their classification, structural, functional descriptions of each gland, and their hormones. Nervous System – Description of the brain, spinal cord, and a complex network of nerves, understanding of the central nervous system and peripheral nervous system. Sensory Nervous System- Understanding the sensory system, organs of the sensory system, their structure and function. Reproductive system- Understanding the both male and female reproductive organs, their structures, secretions, and functions.

Suggested Readings

1. "Human Anatomy & Physiology" by Elaine N. Marieb & Katja Hoehn
2. "Anatomy and Physiology: The Unity of Form and Function" by Kenneth S. Saladin
3. "Essentials of Human Anatomy and Physiology" by Elaine N. Marieb
4. "Human Anatomy and Physiology" by Stuart Fox
5. "Anatomy and Physiology for Health Professionals" by J. L. H. Asimov.

Course Code	Course Name	Fundamentals of Patient Care	Course Category	Skill	Major	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Identify the fundamental principles of patient care and the role of a caregiver in a healthcare setting.	1
CLO2	Describe the basic human needs and methods to ensure patient comfort, hygiene, and dignity.	2
CLO3	Demonstrate appropriate techniques for maintaining personal hygiene, grooming, and safe patient mobility.	3
CLO4	Measure and record vital signs accurately and recognize abnormal readings for timely reporting.	4
CLO5	Apply standard procedures and ethical practices in delivering safe, compassionate, and patient-centered care.	5

Module 1: Introduction to Patient Care

Definition of patient care, importance of patient-centered care, roles and responsibilities of patient care professionals, principles and ethics of caregiving, professional behavior and communication in a healthcare setting.

Module 2: Basic Human Needs and Comfort Measures

Understanding physical, emotional, and social needs of patients, providing comfort and reassurance, assisting with toileting and elimination needs, maintaining patient privacy and dignity, use of comfort devices like pillows and backrests.

Module 3: Personal Hygiene and Grooming

Bathing techniques (bed bath, sponge bath), oral hygiene practices, nail and foot care, hair brushing and combing, shaving and grooming, changing clothes and maintaining personal cleanliness, bed making procedures and linen handling.

Module 4: Mobility and Positioning of Patients

Principles of body mechanics, safe transfer techniques from bed to wheelchair and vice versa, turning and positioning patients in bed, use of mobility aids such as walkers and crutches, prevention of bedsores through proper positioning.

Module 5: Vital Signs and Basic Health Monitoring

Measuring body temperature, checking pulse rate, monitoring respiratory rate and blood pressure, identifying normal and abnormal readings, recording observations in patient charts, reporting changes in patient condition to healthcare staff.

Suggested Readings

1. "Foundations of Basic Nursing" by Barbara Lauritsen Christensen and Elaine Oden Kockrow
2. "Fundamentals of Nursing: The Art and Science of Person-Centered Care" by Carol R. Taylor, Pamela B. Lynn, and Jennifer L. Bartlett
3. "Essentials of Patient Care" by S.A. Muthayya
4. "Clinical Nursing Skills and Techniques" by Anne Griffin Perry and Patricia A. Potter
5. "Manual of Nursing Procedures and Practice" by Omayal Achi
6. Fundamentals of Nursing – B. T. Basavanthappa
7. Potter and Perry's Fundamentals of Nursing (South Asia Edition) – Edited by Suresh K. Sharma & Daisy Thomas
8. Concise Textbook on Hospital Management & Patient Care in Diagnostic Radiology – N. K. Kardam & Lalit Agarwal

Course Code	Course Name	Concept of Health and Hospital Services	Course Category	MDP		L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Define key concepts related to health, well-being, and hospital services.	1
CLO2	Explain the structure and functions of health care delivery systems in India and globally.	2
CLO3	Analyze real-life scenarios to identify the roles and responsibilities of various hospital departments.	3
CLO4	Compare and contrast different types of health care services (public vs. private) and their impacts on patient care.	4
CLO5	Develop a health promotion program or intervention plan for a specific community based on health needs assessment.	5

Module 1: Concept of Health and Well-being

Definition and Dimensions of Health (Physical, Mental, Social, Spiritual, Emotional), Determinants of Health: Biological, Environmental, Behavioral, Social, Economic, Concepts of Disease and Illness Acute vs. Chronic, Infectious vs. Non-infectious, Indicators of Health – Mortality rate, Morbidity rate, Life expectancy, DALY, Concepts of Well-being and Quality of Life, Changing concepts of health Biomedical, Ecological, Psychosocial, Holistic, Role of lifestyle and behavior in health maintenance

Module 2: Health Care Delivery System in India

Overview of Health Care System in India, Levels of Health Care: Primary, Secondary, Tertiary, Functions and Services at Each Level, Role of Government in Health Care – MOHFW, NRHM/NHM, Public Health Infrastructure: Sub-centers, PHCs, CHCs, District Hospitals, Role of Private Sector, Voluntary Organizations, and NGOs, Indigenous Systems of Medicine (AYUSH), Recent Initiatives: Ayushman Bharat, Digital Health Mission

Module 3: Hospital Services and Administration

Definition, Aims, and Classification of Hospitals, Functions of Hospitals – Curative, Preventive, Educational, Research, Types of Hospitals – General, Specialty, Teaching, Rural, Urban, Hospital Departments OPD, IPD, ICU, Emergency, Operation Theatre, Pharmacy, Radiology, Laboratory, Hospital Administration – Organizational Structure, Duties of Hospital Administrator, Human Resource Management in Hospitals, Equipment and Material Management, Legal Aspects: Medical Ethics, Consumer Protection Act, Medical Negligence

Module 4: Community Health and Preventive Services

Definition and Importance of Community Health, Principles and Levels of Prevention: Primary, Secondary, Tertiary, Role of Community Health Workers – ASHA, ANM, MPW, Immunization Programs and National Health Campaigns, Water Supply, Sanitation, Waste Disposal in Health,

Nutrition and Health – Community Nutrition Programs, Health Education and IEC (Information, Education, Communication), Maternal and Child Health (MCH) and Reproductive Health Services

Module 5: Health Planning, Policies, and Global Health

Health Planning in India – Five Year Plans and Health Goals, National Health Policy – Evolution and Objectives, Health Committees: Bhore, Mudaliar, Shrivastava, Role of International Health Agencies WHO, UNICEF, Red Cross, UNDP, World Bank, Global Health Issues – Pandemics, Malnutrition, Access to Care, Sustainable Development Goals (SDGs) and Health, Health Economics Cost of Health Care, Financing, Insurance, Role of Health Information Systems and Surveillance

Suggested Readings

1. Principles of Hospital Administration and Planning – Dr. B.M. Sakharkar
2. Hospital Administration – C.M. Francis & Mario C. deSouza
3. Essentials of Hospital Management & Administration – Yashpal Bhatia
4. Textbook of Hospital Administration – D. C. Joshi & Mamta Joshi
5. Hospital and Health Services Administration – S.L. Goel
6. Hospital Management – G.D. Kunder

Course Code	Course Name	Professional Skills (Team Skills)	Course Category	General	SEC	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Explain the importance of team skills and list the key team skills	2
CLO2	Apply cognitive skills such as critical thinking, problem-solving and the ability to learn, for smooth and efficient functioning in the workplace	3
CLO3	Apply non-cognitive skills such as empathy, creativity, teamwork, collaboration, interpersonal skills, and resilience for smooth and efficient functioning in the workplace	3
CLO4	Use trust and collaboration while working in a team	3
CLO5	Display effective communication as team leaders and members for the proper functioning of the team	3

Module 1: Communication Basics

Communication: Basics and Importance, Speaking: Greetings and Introductions, Writing: Understand Personal Experiences and Thoughts, Non-verbal Communication, Active Listening, Negotiation, Self-Presentation, Self-Presentation: Excelling at Interviews, Self-Presentation: Rocking the Group Discussion, Selling

Module 2: Communication Workplace

Speaking: On the Telephone, Speaking: Making Requests, Writing: Write Effective Notes, Writing: Write Effective Emails, Negotiation: Negotiation in Action Getting to YES

Module 3: Teamwork

Work Effectively in a Team, Collaborate to Achieve Team Goals, Build Effective Relationships with Stakeholders, Conflict Management,

Module 4: Customer Centricity

Types of Customers, Responding Effectively to Customers,

Module 5: Attitudes and Behavioural Skills

Time and task management, Quality consciousness, Result Orientation, Self-Development - Positive Attitude, Self-Awareness: Know Yourself, Responding to Change, Personal Health, Hygiene, and Grooming, Adopting safety practices, Gain Financial Literacy

Module 6: Problem Solving:

Introduction to Critical Thinking, Problem Solving: Introduction to Creative Thinking, Problem-Solving: Introduction to Decision Making, Decision Making: Respond Effectively to a Situation,

Module 7: Workplace Awareness

Cultural Fitment & Gender Diversity, Identify and Align with High-growth Sectors, Organisational Structure and Values, Searching and Applying for Relevant Job,

Module 8: Success in Job Interviews

How to Prepare for a Job Interview, How to Prepare for Job Interview - Getting Ready, How to Conduct Yourself at the Venue, How to Answer Questions During the Interview, How to Effectively Conclude the Interview, How to follow up after the Interview, Ace your Job Interview.

Suggested Readings

1. "The Five Dysfunctions of a Team" by Patrick Lencioni
2. "Team of Teams" by General Stanley McChrystal
3. "The Five Behaviors of a Cohesive Team" by Patrick Lencioni
4. "The New Science of Building Great Teams" by Michael A. West
5. "First, Break All the Rules" by Marcus Buckingham and Curt Coffman

Semester 2

Course Code	Course Name	Basics Of Biochemistry	Course Category	Skill	Major	L	P	Pr	C
						0	3	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall and define the basic terminology, concepts, and principles in biochemistry, including the structure and function of biomolecules such as proteins, carbohydrates, lipids, and nucleic acids.	1
CLO ₂	Explain the biochemical pathways involved in energy production and metabolism, including glycolysis, the citric acid cycle, and oxidative phosphorylation.	2
CLO ₃	Apply the principles of enzyme kinetics to analyze enzyme behavior and understand their role in biochemical reactions.	3
CLO ₄	Analyze and differentiate between various biochemical techniques (e.g., chromatography, electrophoresis) used for the separation and identification of biomolecules.	4
CLO ₅	Evaluate the role of biochemistry in human health and disease, and synthesize knowledge to understand how biochemical imbalances can lead to various medical conditions.	5

Module 1: Essentials of Biochemistry

Introduction to biochemistry: Importance and scope in medicine – Definition, different medical abbreviations, chemical reagents, equipment, and instruments used in biochemistry laboratory, Language of Biochemistry- Concepts, terminologies, and introduction to essentials of biochemistry., Laboratory Techniques and Instruments in Biochemistry- Different instruments, techniques, and chemicals used in biochemical studies.

Module 2: Nutrients in the human body

Introduction to Macronutrients: Classification and Biological Significance of various macronutrients involved in biological processes., Metabolic processes of macronutrients: Metabolic process of all macronutrients in the human body and study of their inter-relation, Introduction to Micronutrients: Classification and biological significance of various micronutrients involved in biological processes, Water-the nectar of life: Role of water in metabolism and different regulatory processes in the human body, Metabolism: Activities and fate of metabolic products.

Module 3: Enzymes and co-enzymes

Enzymes: Introduction and classification: Introduction to enzymes and co-enzymes, their types and classification, enzyme-substrate complex., Factors affecting enzymatic activities: Effect of pH and Temperature in enzyme activity, Substrate Concentration and Enzyme Kinetics, Enzyme Inhibition, Enzymes in Clinical Diagnostics.

Module 4: Introduction to Nucleic Acids

Nucleic acids-structure and functions: Introduction to different nucleic acids, structure of DNA and RNAs, Double helix structure, Concepts of complementary base pairs. DNA replication and Protein synthesis, Mutation of nucleic acids- types and significance: Types of mutations, Replication errors, DNA damage agents, Impact of mutations on protein function, Functional consequences of mutations, Significance in medical diagnosis, Application of Nucleic acid- Applications of nucleic acid in diagnostic and therapeutic treatment processes.

Module 5: Metabolic Disorders and human health

Metabolic disorders in the human body: Common biochemical pathways affected in metabolic disorders, Identification and causes of disorders, Symptoms and clinical presentation, Diagnostic approaches and techniques, Treatment and management strategies, Ethical and social considerations.

Suggested readings

1. "Principles of Biochemistry" by Albert Lehninger
2. "Biochemistry" by Jeremy M. Berg, John L. Tymoczko, and Lubert Stryer
3. "Biochemistry: A Short Course" by John L. Tymoczko, Jeremy M. Berg
4. "Essential Biochemistry" by Charlotte W. Pratt & Kathleen Cornely
5. "Biochemistry for Dummies" by John T. Moore.

Course Code	Course Name	Microbiology	Course Category	Skill	Major	L o	P 3	Pr o	C 3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall the basic principles of microbiology, including types of microorganisms and their characteristics.	1
CLO ₂	Explain the role of microorganisms in human health, including pathogenic and beneficial microbes.	2
CLO ₃	Apply microbiological techniques to identify and classify microorganisms in clinical and laboratory settings.	3
CLO ₄	Analyze the mechanisms of microbial infections and their impact on human health.	4
CLO ₅	Evaluate the effectiveness of antimicrobial treatments and infection control practices in preventing disease spread	5

Module 1: Introduction to Microbiology:

Understanding the role of microbiology in healthcare, Overview of microorganisms (bacteria, viruses, fungi, protozoa), The classification of microorganisms, Importance of microbiology in infectious disease diagnosis and treatment, Techniques used in microbiological research and clinical practice, Historical development of microbiology and key pioneers (e.g., Louis Pasteur, Robert Koch).

Module 2: Microbial Structure and Function:

The structure and function of prokaryotic and eukaryotic cells, Bacterial cell components (cell wall, cell membrane, flagella, pili), Viruses and their structure (capsid, envelope, genetic material), Fungi and protozoa characteristics, The life cycle of bacteria, viruses, fungi, and protozoa, The role of microbial structures in pathogenicity.

Module 3: Microbial Genetics and Evolution:

Introduction to microbial genetics and genetic material, DNA replication, transcription, and translation in microorganisms, Genetic recombination in bacteria (transformation, transduction, conjugation), Mutation and its role in microbial evolution, Antibiotic resistance and its genetic mechanisms, The impact of microbial genetics on infection control and treatment.

Module 4: Microbial Pathogenesis and Host Defense Mechanisms:

Mechanisms of microbial pathogenicity (adherence, invasion, toxin production), The immune response to microbial infections (innate and adaptive immunity), The role of inflammation in infection, The concept of virulence factors and their role in infection severity, Host defense mechanisms (phagocytosis, antibodies), Pathogenesis of common infectious diseases (e.g., tuberculosis, malaria, influenza).

Module 5: Microbial Cultivation, Identification, and Control:

Techniques for cultivating microorganisms in the laboratory (agar plates, broths, selective media), Methods of identifying microorganisms (gram staining, biochemical tests, molecular techniques), Antimicrobial susceptibility testing, Principles of sterilization and disinfection, Infection control practices in healthcare settings (hand hygiene, isolation protocols), Vaccination and its role in infection prevention.

Module 6: Clinical Microbiology and Disease Diagnosis:

Overview of clinical microbiology in diagnostic settings, Collection and transport of clinical samples (blood, urine, sputum, etc.), Techniques for isolating pathogens from clinical specimens, Interpretation of microbiological test results, The role of microbiology in diagnosing common infections (e.g., urinary tract infections, respiratory infections, foodborne diseases), The importance of antimicrobial stewardship in clinical practice.

Suggested Readings

1. "Microbiology: A Systems Approach" by Marjorie Kelly Cowan
2. "Microbiology: Principles and Explorations" by Jacquelyn G. Black
3. "Brock Biology of Microorganisms" by Michael T. Madigan
4. "Medical Microbiology" by Patrick R. Murray
5. "Microbiology for Dummies" by Jennifer Stearns.

Course Code		Course Name	Fundamental of Business	Course Category	General	MDP	L	P	Pr	C
							3	0	0	3
Pre-requisite			Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Describe various business forms, their advantages, legal requirements, and the registration process for establishing a business	2
CLO2	Describe the nature and significance of business economics and its role in informed decision-making	2
CLO3	Explain the principles and necessity of business ethics and the concept and importance of social responsibility	2
CLO4	Describe the concepts and processes of management, planning, organizing, directing, controlling, and the traits and styles of effective leadership	2
CLO5	Identify various organizational structures and explain their advantages	1

Module 1: Introduction to Business

Different Types of Business Forms, What is Business?, Types of Business, Advantages of different business forms, Legal requirements for establishing different businesses, Registration process of a business, Steps involved, Necessary documents, Importance, Costs associated, Government agencies, Benefits, Common mistakes to avoid.

Module 2: Economics and Business

Nature and Significance, Meaning of business economics, Nature, Role of business economics in decision-making, Fundamentals, Cost-benefit analysis, Demand and supply analysis, Pricing strategies, Economic forecasting, External factors affecting business decisions.

Module 3: Ethics and Social Responsibility

Need of Business Ethics, Meaning, Principles, Need, Concept of Social Responsibility Need, Meaning, Need.

Module 4: Management and Leadership

Concept of management, Process, Nature, Importance, Scope, Planning, Importance, Characteristics, Process, Types of Plans, Organising, Concept, Steps, Principles, Importance, Directing and Controlling, Concept, Principles, Elements and Importance, Controlling and its Features, Importance and Process of Controlling, Leadership, Concept, Meaning, Effective Leadership Traits, Leadership Styles.

Module 5: Organizational Structure

Types and advantages of different types of organizational structure, Organisational Structure, Types, Choosing the right type of organizational structure, Necessity, Right structure and Growth, Stages in Organisational Development, Organisational Developmental Strategy, Organisational Practices in 5 phases of growth, Organisational success.

Suggested Readings

1. "Fundamentals of Business" by Stephen J. Skripak
2. "Principles of Business: A Hands-On Approach" by Harry A. Kahn
3. "Business: A Changing World" by O.C. Ferrell, Geoffrey Hirt, Linda Ferrell
4. "Introduction to Business" by Jeff Madura
5. "Business Essentials" by Ronald J. Ebert and Ricky W. Griffin.

Course Code	Course Name	Employability Skills (Basics)	Course Category	General	SEC	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Demonstrate proficiency in various forms of communication to achieve desired outcomes in personal and professional interactions	3
CLO2	Demonstrate proficiency in workplace communication skills and negotiation techniques for efficient and productive communication within the workplace	3
CLO3	Describe teamwork dynamics within the team environment	2
CLO4	Identify different types of customers and effectively respond to their needs and inquiries, fostering a customer-centric approach	1
CLO5	Demonstrate personal and professional competencies for personal growth, organizational success, and overall well-being	3
CLO6	Demonstrate critical thinking, creative thinking, and decision-making skills to respond effectively to a variety of situations	3
CLO7	Demonstrate an understanding of cultural and gender diversity in the workplace to foster a culture of inclusivity and collaboration.	3
CLO8	Prepare for job interviews, including readiness, conclusion strategies, and post-interview follow-up, to excel in job interviews.	3

Module 1: Communication Basics

Communication: Basics and Importance, Definition, Importance, Improving communication skills for better personal and professional relationships, Speaking: Greetings and Introductions, Conversations, Types of conversations, WORDS approach, Writing: Understand Personal Experiences and Thoughts, How to write a paragraph, CRAFT approach, Non-verbal Communication, Definition, Importance, Improving non-verbal communication, Active Listening, Definition, RESPECT approach, Negotiation: Understanding Perspectives, Definition, OPEN approach, Self-Presentation: Making a Great First Impression, APPEAR approach, Self-Presentation: Excelling at Interviews, What do recruiters look for?, PERFECT approach, Self-Presentation: Rocking the Group Discussion, Definition of group discussion, PITCH approach, Selling: Communicate Effectively to Gain Acceptance, Communication methods to gain acceptance for product, service, idea, ACCEPT approach.

Module 2: Communication at Workplace

Speaking: On the Telephone, Everyday communications, Ways to communicate politely and effectively on the telephone, WORDS approach, Speaking: Making Requests, Ways to request politely, The difference between permission and request, WORDS approach, Writing: Write Effective

Notes, Definition of note-taking, Effectively writing notes, Organising notes, PILOT approach, Cornell method of note-taking, Writing: Write Effective Emails, Importance, The difference between written and verbal communication, PILOT approach, Negotiation: Negotiation in Action Getting to YES, Types of outcomes, GAINS approach.

Module 3: Teamwork,

Work Effectively in a Team, Importance of working in a team, CAUSE model, Collaborate to Achieve Team Goals, Importance, Identifying goals, SUCCESS model, Build Effective Relationships with Stakeholders, What is a stakeholder?, Types of stakeholders, TREAT technique for managing stakeholders, Conflict Management: Identify and Resolve Conflicts, Reasons for conflicts, Techniques to resolve conflicts, CALM approach.

Module 4: Customer Centricity

Types of Customers, Potential, Past, Current, Types of personalities (OCEAN), Responding Effectively to Customers, Importance, LAST approach.

Module 5: Attitudes and Behavioural Skills

Time and task management: Plan and Manage Tasks Within a Timeline, Time management definition, Planning and managing tasks, Staying organized, PLOT approach, Time and task management: Plan, Prioritise, and Manage Tasks, Managing time, Organizing and prioritizing tasks, TRAIN model, Quality consciousness: Introduction to Quality, Defining quality consciousness, The importance of establishing standards, Quality Consciousness: Understand the Impact of Errors, Defining errors, The impact of errors, Avoiding mistakes, Result Orientation: Introduction to Result Orientation, Defining result orientation, The importance of a result-oriented mindset, How to succeed and get desired results?, Result Orientation: Plan Tasks to Achieve Goals, Becoming result-oriented, Result orientation process, Self-Development - Positive Attitude, Defining attitude, The importance of positive mindset, GLAD model, Self-Awareness: Know Yourself, Defining self-awareness, Identifying strengths, Interests and areas of improvement, Using strengths to achieve goals, Responding to Change: Understand and Adjust to Change, Defining change, Reacting to change, Ways to adapt to change, Personal Health, Hygiene, and Grooming, The importance of grooming, Importance of personal hygiene, Grooming essentials, Effects of not maintaining appearance, Adopting safety practices: Health, Environment, and Safety Awareness, Ways to stay fit and healthy, Keeping surroundings clean, Keeping yourself safe, PASS technique for fire extinguishers, Gain Financial Literacy, Importance of financial literacy, Financial tools in daily life, Components of salary, Types of bank accounts, Importance of insurance.

Module 6: Problem Solving

Problem Solving: Introduction to Critical Thinking, Importance of critical thinking, Applications, Analysing problems, Link between ideas, REASON model, Problem Solving: Introduction to Creative Thinking, Defining creative thinking, Importance, Applications, Problem-Solving: Introduction to Decision Making, Defining decision making, Importance, Elements of decision making, Decision Making: Respond Effectively to a Situation, Decision-making process, Application in different scenarios, DECIDE model.

Module 7: Workplace Awareness

Cultural Fitment & Gender Diversity, Stereotyping and unconscious bias, Diversity issues and how to resolve them, Features of a diverse workplace, Behavioural elements of a diverse workplace, Identify and Align with High-growth Sectors, Types of skill sets, Steps before applying for a job,

Organisational Structure and Values, Organizational structure and hierarchy, Organizational values, Work environment and culture, Searching and Applying for Relevant Job, Platforms for finding job vacancies, Creating a resume, Cover letter formats, Job application requirements.

Module 8: Success in Job Interviews

How to Prepare for a Job Interview - Gaining Confidence, Describing strengths and qualities, Do's and Don'ts for identifying strengths, Researching roles and responsibilities, Knowing your resume, The importance of knowing about the company, Asking questions to the interviewer, How to Prepare for Job Interview - Getting Ready, List of documents for the interview, Behaviour at the interview venue, Grooming and appearance for the interview, How to Conduct Yourself at the Venue, How to make a good first impression, Tips for conducting yourself well at the venue, How to Answer Questions During the Interview, Making a good impression, Tips to answer questions effectively, How to Effectively Conclude the Interview, Asking relevant questions to the interviewer, How to follow up after the Interview, Following up to know the application status, Accepting the job offer, Handling negative results, Ace your Job Interview, Identify and describe your strengths and weaknesses, Updating resume, Mock interviews, Tricks to do well in an interview.

Suggested Readings

1. "Employability Skills" by Christine Lockwood
2. "The 7 Habits of Highly Effective People" by Stephen Covey
3. "Essential Skills for Business Success" by R. Glenn
4. "The Employability Skills Handbook" by Carol Dixon
5. "How to Get a Job: The Ultimate Guide to Finding a Job" by K. McGregor

Semester 3

Course Code	Course Name	Clinical Aspects Of Pathology	Course Category	Skill	Major	L o	P 3	Pr o	C 3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall the basic concepts and terminology used in pathology, including types of diseases and their manifestations.	1
CLO ₂	Explain the role of pathology in diagnosing diseases and understanding their progression.	2
CLO ₃	Apply pathological techniques to analyze tissue samples and identify abnormalities.	3
CLO ₄	Analyze the relationship between pathological findings and clinical symptoms in various diseases.	4
CLO ₅	Evaluate the importance of pathology in guiding treatment decisions and improving patient outcomes.	5

Module 1: Understanding Clinical Pathology

Orientation of Pathological Lab: Introduction to the organization and functioning of pathological laboratories, encompassing equipment, safety protocols, and essential procedures. Creating a foundational understanding for effective and efficient laboratory operations. Quality Control: Study of quality control measures in pathology laboratories, focusing on ensuring accuracy, reliability, and compliance with standards. Implementation of quality assurance protocols for precise diagnostic outcomes.

Module 2: Urine and Stool Examination

Urinary System: Explore the urinary system, encompassing anatomy, physiology, and key functions. Emphasis on the role of the kidneys, urinary tract, and associated mechanisms. Sample Collection and Diagnosis: Methods of urine sample collection, techniques and protocols. Physical, Chemical, and Microscopic diagnostic procedures for analyzing urine samples to identify and interpret various medical conditions. Digestive System: Explore the anatomy and physiology of the digestive system, covering its organs, functions, and key processes. Sample Collection and Diagnosis: Stool sample collection, techniques, and protocols. Diagnostic procedures for analyzing stool samples to identify and interpret various medical conditions.

Module 3: Sputum and Semen Analysis

Sputum Analysis: Study of sputum analysis techniques in pathology, including collection methods and diagnostic interpretation. Identifying different conditions and infections through microscopic examination and laboratory procedures. Semen Analysis: Comprehensive exploration of semen analysis in pathology, covering collection protocols and laboratory procedures.

Module 4: Body Fluids

Introduction to Different Body Fluids: Introduction to various body fluids, exploring their types,

characteristics, and diagnostic significance. Diagnosis of Body Fluid: Understanding the analysis and interpretation of fluids such as cerebrospinal fluid, synovial fluid, and pleural fluid.

Module 5: Advanced Analysis Techniques

Instrumentation: Explore the advanced instrumentation in pathology laboratories, covering cutting-edge technologies for precise diagnostics. Different equipment and their applications in pathological diagnosis. Immunological and Molecular Diagnosis: Study of immunological and molecular diagnostic techniques in pathology. Application of advanced methods for disease detection and characterization.

Suggested Readings

1. Robbins and Cotran Pathologic Basis of Disease" by Kumar, Abbas, and Aster
2. "Clinical Pathology" by David L. Stoeckle
3. "Essential Pathology" by Alan B. Weerasinghe
4. "Clinical Laboratory Science: The Basics and Routine Techniques" by Mary Louise Turgeon
5. "Pathology: Implications for the Physical Therapist" by Catherine C. Goodman.

Course Code	Course Name	Healthcare Support and Rehabilitation	Course Category	Skill	Major	L o	P 3	Pr o	C 3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall that healthcare support and rehabilitation involve services like physical and occupational therapy to help individuals recover and improve health.	1
CLO ₂	Explain how rehabilitation services are designed to restore function and mobility after injury or surgery.	2
CLO ₃	Apply rehabilitation by showing how physical therapy can aid in recovery after a stroke.	3
CLO ₄	Analyze how healthcare support and rehabilitation work together to enhance a patient's recovery and well-being.	4
CLO ₅	Evaluate how inadequate rehabilitation can lead to slower recovery and increased risk of permanent disability	5

Module 1: Introduction to Healthcare Support and Rehabilitation:

Understanding the role of healthcare support and rehabilitation in the recovery process, Overview of rehabilitation types (physical, occupational, speech, and mental health rehabilitation), The interdisciplinary team approach to rehabilitation, Principles of patient-centered care, The importance of early intervention in rehabilitation, Key components of a rehabilitation plan.

Module 2: Rehabilitation for Physical Disabilities:

The role of physical therapy in rehabilitation, Treatment methods for musculoskeletal disorders (e.g., fractures, arthritis), Rehabilitation after surgery (e.g., joint replacement, spinal cord surgery), Pain management strategies in rehabilitation, Assistive devices and their role in improving mobility (crutches, wheelchairs, prosthetics), The importance of exercise in improving function and strength.

Module 3: Occupational Therapy and Cognitive Rehabilitation: The role of occupational therapy in promoting independence, Assessing and improving activities of daily living (ADLs), Cognitive rehabilitation techniques for individuals with brain injuries or neurological disorders, Strategies for improving fine motor skills, Occupational therapy interventions for stroke, dementia, and developmental disabilities, The use of adaptive equipment in therapy.

Module 4: Speech and Language Therapy:

Understanding the role of speech-language pathologists in rehabilitation, Assessment and treatment of speech and language disorders (aphasia, dysphagia, stuttering), Rehabilitation after stroke or traumatic brain injury, Speech therapy for children with developmental disorders, Cognitive-communication therapy for elderly patients, Techniques for improving swallowing function and preventing aspiration.

Module 5: Psychological Support and Mental Health Rehabilitation:

The importance of mental health support in the rehabilitation process, Psychological assessment and treatment in rehabilitation settings, Addressing emotional and psychological barriers to recovery, Coping strategies for chronic illness and disability, The role of counseling, psychotherapy, and support groups in rehabilitation, Rehabilitation for mental health conditions (depression, anxiety, post-traumatic stress disorder).

Suggested Readings

1. Healthcare Support and Rehabilitation: A Comprehensive Approach – Thomas J. Kerns
2. Rehabilitation: A Post-Acute Care Approach – Mary J. R. Harbaugh
3. Foundations of Rehabilitation – Paul L. McDowell
4. Healthcare Support: Roles, Skills, and Issues in Rehabilitation – Elizabeth B. Long
5. Introduction to Healthcare Support and Rehabilitation Services – James A. C. Jackson.

Course Code	MDP 3	Course Name	Environmental Sciences	Course Category	MDP	MDP	L 3	P 0	Pr 0	C 3
Pre-requisite			Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Identify and describe the components of the environment (hydrosphere, lithosphere, atmosphere, biosphere) and explain the interrelationship between human activities and the environment.	1
CLO2	Explain ecosystem structure, components, energy flow, trophic levels, and analyze the characteristics of various ecosystems including terrestrial, freshwater, and marine.	2
CLO3	Apply knowledge of environmental issues (such as greenhouse effect, ozone depletion, and deforestation) to analyze their impacts on global and local ecosystems.	3
CLO4	Analyze various types of pollution (air, water, land) and assess their causes, consequences, and potential control strategies for minimizing environmental degradation.	4
CLO5	Evaluate the effectiveness of environmental protection laws, management practices, and global initiatives (such as IUCN, EPA) in addressing environmental challenges and promoting sustainable practices.	5

Module 1: Components of Environment

Understanding the hydrosphere, lithosphere, atmosphere, and biosphere, defining each with examples, and exploring the interaction between man and the environment.

Module 2: Ecosystem

Introduction to basic concepts of ecosystems, components of ecosystems, trophic levels, food chains, and food webs, ecological pyramids, ecosystem functions, and energy flow in ecological systems, along with characteristics of terrestrial, freshwater, and marine ecosystems.

Module 3: Global Environmental Problems

Examining global environmental issues such as the greenhouse effect, acid rain, El Niño, ozone depletion, deforestation, desertification, salinization, biodiversity loss, and chemical and radiation hazards.

Module 4: Environmental Pollution and Degradation

Analyzing the pollution of air, water, and land, focusing on causes, nature, impacts, and control strategies, with perspectives on pollution in urban, industrial, and rural areas, and the effects of habitat pollution from chlorinated hydrocarbons (DDT, PCBs, dioxins, etc.), endocrine-disrupting chemicals, and nutrient pollution.

Module 5: Environmental Management

Understanding health and sanitation in environmental contexts, identifying environmental diseases (infectious and pollution-related), exploring the spread and control of these diseases, and addressing

health hazards due to pesticide and metal pollution, waste treatment, solid waste management, and environmental standards and quality monitoring.

Module 6: Environmental Protection Act

Overview of environmental laws, national movements, and environmental ethics, taking a holistic approach to environmental protection and conservation, with a focus on IUCN's role in environmental protection. Understanding the concept of UN declarations, human rights policies in India, and the recent North-South debate on implementation priorities, as well as the role of the Environmental Protection Agency (EPA).

Module 7: Special Environmental Issues

Focus on oil spills, wastewater treatment, chemical degradation, and the impact of heavy metals on the environment.

References and Suggested Readings

1. Environmental Science: Earth as a Living Planet by G. Tyler Miller and Scott Spoolman
2. Fundamentals of Environmental Science by William P. Cunningham and Mary Ann Cunningham
3. Environmental Science: A Global Perspective by Richard T. Wright and David W. Lea:

Course Code	AEC	Course Name	Communication Skills (English)	Course Category	General	AEC	L	P	Pr	C
							o	4	o	4
Pre-requisite			Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Use basic English to communicate effectively in everyday situations	3
CLO2	Exchange information and give instructions clearly and effectively	3
CLO3	Describe past experiences, current activities, and future plans	2

Module 1: Everyday English Basics

Getting Started: Alphabet, Colors, Nice to Meet You, About You: Getting to know you, Where are you from?, This is my Family, School: In the classroom, At school, Time: My Day, My Week, My Month, Shopping: How much is it?, Shopping for clothes, Food: At the supermarket, At a restaurant, Food I like, Health: Making an appointment, At the doctor, Community: Finding an apartment, Around town, Work: Jobs, Getting a job, Getting to work, Calling in sick.

Module 2: Everyday English – 1

Greetings and Introductions: Ask - about personal details, what something is called (how to say things in English), where someone is from, Give someone personal details, Greet someone, Introduce - others, someone else, yourself, Talk about your nationality, Tell someone where you are from, Thank someone, Exchanging Information: Arrange a meeting, Ask what kind of work someone does, Give instructions, Talk about - computer parts, schedules, Tell someone what work you do, Family and Friends: Ask about marital status, Compliment someone, Describe someone, Greet someone, Introduce someone, Talk about - art, family, How much? How many?: Ask the price of something, Buy - food, tickets for a concert, Make a salad, Talk about - a band, breakfast, food, pets, quantities, Describing your home: Arrange a meeting, Buy things for - the bathroom, the bedroom, Describe an apartment, Make - plans, suggestions, Plan a party, Talk about - living room furniture, pets, things you use in the kitchen, Tell someone where you live, Thank someone, Describing Routines: Ask - a favor, about someone's daily routine, the time, what kind of work someone does, Disagree with someone, Give instructions, Plan a weekend, Tell someone the time, Talk about - family responsibilities, schedules, Things we can/can't do: Ask - about a birthday, the date, the price of something, Express feelings, Give information about - a party, Invite someone to a party, Make plans, Offer - help, someone food and drink, Plan a party, Refuse politely, Shop for clothing, Solve a problem, What's happening?: Ask someone what's happening, Explain what you are doing, Introduce yourself, Make suggestions, Offer help, Talk about - art, basketball, current actions, dance, what you are doing, Tell someone what's happening.

Module 3: Everyday English – 2

Greetings and Introductions: Ask - about a tourist attraction, about hotel facilities, where someone

is from, Describe - a hotel room, how you feel, Excuse yourself, Greet someone, Introduce yourself, Spell a name, Talk about - likes and dislikes, professions, Routines and Actions: Ask - about a tourist attraction, where someone is, Talk about - art, free time, hunger, likes and dislikes, sports, Give - directions, someone your location, Describe - actions that are happening, how you feel, routines, Talking about the Past: Ask about past experiences and events, Describe - a burglary, how you feel, Report a burglary, Talk about the past, Thank someone, Past Experiences: Ask about past experiences and events, Explain Tai Chi, Talk about - animals, basketball, cooking, disappointments, free time, likes and dislikes, professions, sports, Keep in touch, Talking about the Future: Ask about the weather, Get information about the weather, Talk about - a future trip, future plans, space travel, the future, the weather, Give information about the weather, Let's Trade Apartments: Ask a favor, Buy presents, Plan a weekend, Talk about - a future trip, things we must / mustn't do, things we should / shouldn't do, Things we have done: Talk about - past experiences and events, sports, things you have / haven't done, your dreams, your interests, Solve problems on a trip, Comparing People and Things: Apologize, Go shopping for clothes, Keep in touch, Pack a suitcase, Say goodbye to a friend, Talk about a tour.

Suggested Readings

1. "English Communication for Technical Students" by M. Ashraf Rizvi
2. "English for Everyone: English Vocabulary Builder" by DK
3. "The Elements of Style" by William Strunk Jr. & E.B. White
4. "Improve Your English: English in the Workplace" by D. H. Palmer
5. "How to Speak and Write Correctly" by Joseph

Semester 4

Course Code		Course Name	Mental Health Care	Course Category	Skill	Major	L	P	Pr	C
							o	3	o	3
Pre-requisite			Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall that mental health care includes services aimed at diagnosing, treating, and supporting individuals with mental health conditions such as depression, anxiety, and schizophrenia.	1
CLO ₂	Explain how therapy, medication, and counseling are used to manage mental health disorders and improve emotional well-being.	2
CLO ₃	Apply mental health care by demonstrating how cognitive-behavioral therapy (CBT) can help individuals change negative thought patterns.	3
CLO ₄	Analyze how mental health care and support networks collaborate to improve recovery outcomes for individuals with mental health disorders.	4
CLO ₅	Evaluate how untreated mental health issues can lead to worsening symptoms and significantly impact a person's quality of life.	5

Module 1: Introduction to Mental Health

Definition and scope of mental health nursing, History and evolution of mental health care, Role of mental health nurses in the healthcare system, Basic principles of mental health care, Understanding mental health conditions and their impact on individuals and society.

Module 2: Mental Health Assessment and Diagnosis

Methods of conducting mental health assessments, Psychological evaluation tools and techniques, Understanding mental health disorders (anxiety, depression, schizophrenia, etc.), Importance of accurate diagnosis and early intervention, Role of the nurse in identifying and monitoring mental health conditions.

Module 3: Therapeutic Communication and Interventions

Principles of therapeutic communication in mental health nursing, Establishing trust and rapport with patients, Active listening and empathy in mental health care, Cognitive-behavioral interventions and counseling techniques, Crisis intervention and de-escalation strategies in psychiatric care.

Module 4: Pharmacology and Psychotropic Medications

Introduction to psychotropic medications used in mental health treatment, Types of psychotropic drugs (antidepressants, antipsychotics, mood stabilizers, anxiolytics), Medication management and side effects, Importance of patient education on medication adherence, Monitoring and evaluating treatment outcomes.

Module 5: Mental Health Care and Rehabilitation

Developing individualized care plans for mental health patients, Providing nursing care in inpatient and outpatient settings, Promoting patient autonomy and recovery, Rehabilitation programs and community integration, Role of mental health nurses in family education and support.

Suggested Readings

1. Mental Health Nursing: A Handbook for Nurses – Philip J. Barker
2. Essentials of Mental Health Care – Ian Norman, Iain Ryrie
3. Mental Health: A Person-Centered Approach – Philip T. Lichtenberg
4. Psychiatric and Mental Health Nursing – Mary C. Townsend
5. Principles and Practice of Psychiatric Nursing – Gail Wiscarz Stuart.

Course Code	Course Name	Patient Safety and Emergency Management	Cours Category	Skill	Major	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Explain the fundamental principles of patient safety and the importance of minimizing healthcare errors.	1
CLO ₂	Identify infection control practices and implement hygiene protocols to prevent hospital-acquired infections.	2
CLO ₃	Demonstrate basic life support (BLS) techniques and respond appropriately to common emergency situations.	3
CLO ₄	Apply fire safety and disaster management procedures during hospital emergencies.	4
CLO ₅	Interpret and follow medication safety protocols and effectively report incidents and near-miss events.	5

Module 1: Introduction to Patient Safety

Definition and scope of patient safety, importance of safety in healthcare, types of medical errors, causes of medical errors, principles of risk management, safety culture and systems approach, roles and responsibilities of healthcare workers, patient rights and responsibilities, incident and error reporting systems, WHO patient safety guidelines, and National Patient Safety Goals.

Module 2: Infection Control and Hygiene Practices

Sources and types of healthcare-associated infections (HAIs), chain of infection, standard precautions, transmission-based precautions, hand hygiene practices, use and disposal of personal protective equipment (PPE), cleaning and disinfection techniques, sterilization procedures, biomedical waste management, environmental hygiene, and isolation protocols.

Module 3: Emergency Response and Basic Life Support (BLS)

Types of medical emergencies, basic emergency assessment, calling for help and triage, airway management, cardiopulmonary resuscitation (CPR) techniques, rescue breathing, recovery position, management of unconscious patients, bleeding control and wound care, handling fractures and burns, and transportation of patients.

Module 4: Fire Safety and Disaster Preparedness

Classification of fires and fire extinguishers, fire prevention strategies, fire alarm systems, evacuation procedures, disaster types (natural and man-made), hospital disaster management plan, roles and responsibilities of hospital staff, mock drills and simulations, emergency exits and signage, and coordination with emergency services.

Module 5: Medication Safety and Incident Reporting

Safe medication practices, types of medication errors, high-alert medications, storage and labeling of drugs, adverse drug events and reactions, documentation and communication of medication administration, double-checking protocols, use of checklists, near-miss and error reporting, and patient education on medication use.

Suggested Readings

1. First Aid and Emergency Management – Surabhi Arya
2. A Handbook of Emergencies – Aspi F. Golwalla & Sharukh A. Golwalla
3. Textbook of Emergency and Trauma Care – Devendra Richhariya, T.S. Srinath & Tamorish Kole
4. Emergency Medical Service Systems: A Global Perspective – Shakti Kumar Gupta, Sunil Kant & Angel Rajan Singh
5. Hospital and Health Services Administration – Syed Amin Tabish

Course Code	VAC-1	Course Name	Cultural Diversity in the Indian Society	Course Category	VAC	VAC	L	P	Pr	C
							3	0	0	3
Pre-requisite			Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Define and describe the key components of Indian culture and explain the factors contributing to its diversity.	2
CLO2	Analyse the role of major religions in shaping India's societal fabric and historical coexistence.	2
CLO3	Examine the linguistic landscape of India and its impact on national identity and social cohesion.	3
CLO5	Evaluate the diversity of ethnic and tribal communities, their challenges, and contributions to India's cultural mosaic.	3
CLO6	Assess the impact of globalization and modernization on Indian culture and propose strategies to promote cultural harmony and integration.	2

Module 1: Foundation of Indian Diversity

Define culture and its components (language, religion, customs, traditions, art, etc.), Explain the historical factors contributing to India's cultural diversity (geographic, linguistic, religious, and social), Analyse the concept of unity in diversity and its relevance to Indian society.

Module 2: Religious Diversity

Describe the major religions of India (Hinduism, Islam, Christianity, Sikhism, Buddhism, Jainism) and their core beliefs, Examine the historical coexistence and conflicts among different religious groups, Analyse the role of religion in shaping Indian society and culture.

Module 3 - Linguistic Diversity

Explain the linguistic landscape of India, including Indo-Aryan, Dravidian, and other language families., Analyse the impact of language diversity on identity, communication, and social cohesion, Discuss the role of language in nation-building and cultural integration.

Module 4 - Ethnic and Tribal Diversity

Define ethnicity and tribe, and differentiate between them, Explore the diversity of ethnic and tribal groups in India, their geographical distribution, and cultural practices, Analyse the challenges faced by ethnic and tribal communities in contemporary India.

Module 5 - Cultural Dynamics and Challenges

Examine the processes of acculturation, assimilation, and pluralism in Indian society, Analyse the impact of globalization and modernization on Indian culture, Discuss the challenges posed by cultural diversity, such as communalism, casteism, and regionalism, Explore strategies for promoting

cultural harmony and national integration.

Suggested Readings

1. "India After Gandhi: The History of the World's Largest Democracy" by Ramachandra Guha
2. "The Wonder That Was India" by A.L. Basham
3. "India: A Sacred Geography" by Diana Eck
4. "An Area of Darkness" by V.S. Naipaul
5. "India Unbound" by Gurcharan Das

Course Code	SEC 3	Course Name	Professional Skills (Career Skills)	Course Category	SEC	SEC	L	P	Pr	C
							3	0	0	3
Pre-requisite			Nil	Co-requisite		Nil				

COURSE LEARNING OUTCOME

CLO1	Prepare a professional fit to purpose résumé in line with the job description and digital and AI-era practices
CLO2	Prepare for job interviews
CLO3	Participate in recruitment-related group discussions
CLO4	Prepare self for achieving career goals through career planning and life-long learning
CLO5	Identify career opportunities in consideration of personal potential and aspirations.

Module 1: Résumé Skills

- **Résumé Skills: Preparation and Presentation** - Comprehend the importance of a résumé, identify essential components of a good résumé while preparing it.
- **Résumé Skills: Common Errors** - Identify common errors in a résumé.
- **Keywords Specific Resume** - Align resume to new-age AI-powered hiring practices
- **Skills vs Job Description** - Prepare a resume to map the job description
- **Make Specialized Resumes for Different Job Applications** - Create Resumes using AI Tools
- **Self-Presentation Even Before Interview** - Present a Video Resume
- **Work Portfolio** - Prepare a work portfolio
- **Digital Media Profiles** - Manage professional presence on digital media platforms

Module 2: Interview Skills

- **Introduction to Interviews** - Describe the meaning and types of interviews.
- **Common questions** - Describe the important questions generally asked in a job interview.
- **Exchange of views**
- **Interview Skills: Preparation and Presentation** - List key interviewee skills
- **Interview Procedure** - Describe the interview procedure
- **Interview Skills: Common Errors** - Identify common errors people make during an interview.

Module 3: Interview Simulation

- **Job Simulation Formats** - Critique the performance of a few simulated interviews
- **Comment Critically on Simulated Interviews** - Critique the performance of a few simulated interviews
- **Demonstrate an Ideal Interview** - Critique the performance of a few simulated interviews

Module 4: Group Discussion Skills

- **Meaning and Importance of Group Discussion** - Describe the meaning and importance of a Group Discussion in a selection process.
- **Procedure of a Group Discussion** - Describe the procedure of a Group Discussion, identify essential skills to be evaluated during a Group Discussion.

- **Group Discussion: Common Errors** - Identify common errors people commit in a Group Discussion.
- **Group Discussion: Simulation** - Identify common errors people commit in a Group Discussion.

Module 5: Career Planning

- **What is Career? Why a Specific Career?** - Explain the process of career development and its importance for professionals
- **Importance of Career Development** - Explain the process of career development and its importance for professionals
- **Knowing Yourself — Personal Characteristics (MBTI - personality Test)** - Explain the process of career development and its importance for professionals
- **Career Aptitude Tests** - Explain the process of career development and its importance for professionals
- **Career opportunities in Industry & Goals** - Explain the process of career development and its importance for professionals

Module 6: Exploring Career Opportunities

- **Knowledge about the World of Work** - Identify career opportunities in selected fields of work
- **Sources of Career Information** - Identify career opportunities in selected fields of work
- **Skills & Career - Current Trends** - Identify career opportunities in selected fields of work
- **Process of Career Exploration** - Identify career opportunities in selected fields of work

Module 7: Lifelong Learning

- **Developing Eligibility** - Develop skills and abilities to support career goals using life-long learning
- **Concept of Life-Long Learning** - Develop skills and abilities to support career goals using life-long learning
- **Sources of Life-long learning** - Develop skills and abilities to support career goals using life-long learning
- **Case Study** - Use the necessary components to prepare for a career in an identified occupation (as a case study).

Suggested Readings

1. Knock 'em Dead Resumes – *Martin Yate*
2. The Resume Writing Guide – *Lisa McGrimmon*
3. Modernize Your Resume – *Wendy Enelow & Louise Kursmark*
4. Cracking the Code to a Successful Interview – *Evan Pellett*
5. 101 Great Answers to the Toughest Interview Questions – *Ron Fry*
6. Interview Like a Boss – *Hans Van Nas*
7. How to Answer Interview Questions – *Peggy McKee*

Semester 5

Course Code	Course Name	Geriatric Care	Course Category	Skill	Major	L o	P 3	Pr o	C 3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Recall that geriatric care focuses on the healthcare needs of elderly individuals, addressing both physical and mental health as they age.	1
CLO2	Explain how geriatric care services are designed to manage chronic conditions, promote mobility, and improve quality of life for seniors.	2
CLO3	Apply geriatric care by showing how personalized care plans can help seniors manage conditions like arthritis or dementia.	3
CLO4	Analyze how healthcare professionals, families, and caregivers collaborate to provide comprehensive support for elderly individuals.	4
CLO5	Evaluate how inadequate geriatric care can lead to increased risk of falls, neglect, and reduced independence in older adults.	5

Module: Introduction to Geriatrics

Aging process, Common health issues in elderly, Gerontology, Demographics of aging population, Physiological changes with aging, Psychological and social factors in aging, Health disparities in older adults.

Module: Geriatric Assessment and Diagnosis

Comprehensive geriatric assessment, Functional assessment, Cognitive assessment, Physical examination techniques, Screening for depression and anxiety, Pain assessment in elderly, Medication review and polypharmacy.

Module: Chronic Conditions in the Elderly

Cardiovascular diseases, Diabetes management in older adults, Osteoarthritis and osteoporosis, Dementia and Alzheimer's disease, Parkinson's disease, Chronic respiratory conditions, Hypertension management.


Module: Geriatric Care and Management

Multidisciplinary care team, Patient-centered care, Medication management, Nutritional support and diet, Fall prevention strategies, Rehabilitation and physical therapy, Caregiver support and education.

Module: Ethical and Legal Issues in Geriatric Care

Advance care planning, End-of-life care, Ethical dilemmas in geriatric care, Patient autonomy and decision-making, Legal considerations (power of attorney, guardianship), Abuse and neglect in elderly, Palliative and hospice care.

Suggested Readings

1. Geriatric Nursing: A Guide to Practice – Mariann M. Harding
 2. Textbook of Geriatric Care – Howard E. L. Wright
 3. Geriatric Medicine: An Evidence-Based Approach – David A. Bennett
 4. Gerontological Nursing: A Clinical Handbook for Health Professionals – Sue E. Meiner
 5. Principles of Geriatric Care – B. L. Timbo.
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Course Code	Course Name	Medical Record Keeping	Course Category	Skill	Minor	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall the basic principles and regulations regarding medical record keeping and documentation.	1
CLO ₂	Explain the importance of accurate, clear, and timely medical record documentation in patient care.	2
CLO ₃	Apply appropriate methods for maintaining and organizing medical records according to legal and ethical standards.	3
CLO ₄	Analyze medical records to ensure they comply with healthcare regulations and support clinical decision-making.	4
CLO ₅	Evaluate the effectiveness of medical record-keeping practices in improving patient care, confidentiality, and legal compliance.	5

Module 1: Introduction to Medical Record Keeping:

Understanding the importance of medical records in healthcare, Types of medical records (paper-based, electronic health records), Legal and ethical considerations in record keeping, Patient confidentiality and privacy laws (HIPAA, Data Protection Act), The role of medical record keeping in patient care and safety.

Module 2: Types of Medical Records and Documentation:

Overview of different types of medical records (clinical notes, diagnostic reports, treatment plans, prescriptions), Essential components of a medical record (patient history, physical examination, progress notes), Structured vs. unstructured documentation, Types of forms and documents used in healthcare (consent forms, medical histories, etc.), The role of standardized formats in record-keeping.

Module 3: Electronic Health Records (EHR) and Technology in Record Keeping:

Benefits and challenges of electronic health records, Key features of EHR systems, Data entry and management in electronic records, Integrating EHR with other healthcare systems (laboratory, pharmacy), Privacy and security measures in electronic record systems, Regulatory guidelines for EHR systems.

Module 4: Legal and Ethical Aspects of Medical Record Keeping:

Understanding the legal requirements for medical record retention, Patient rights and access to medical records, Managing subpoenas and legal requests for records, Record keeping in the event of malpractice or litigation, Documentation as evidence in healthcare disputes, Ethical considerations in maintaining patient records.

Module 5: Medical Coding and Billing:

Introduction to medical coding systems (ICD, CPT, HCPCS), The importance of accurate coding in medical record keeping, Medical billing procedures and their relationship to record keeping, The role

of coding in insurance claims and reimbursements, Common coding errors and their consequences, Ensuring compliance with coding regulations.

Module 6: Medical Record Retention and Disposal:

Guidelines for the retention and disposal of medical records, Legal and regulatory requirements for record retention (timelines, formats), Best practices for organizing and storing patient records, Secure disposal methods for paper and electronic records, Ethical and legal considerations when disposing of medical records, Implementing record retention policies in healthcare facilities

Suggested Readings

1. "Medical Record Keeping and Documentation" by P. K. Maity
2. "Introduction to Health Care and Documentation" by Carolyn P. Sultz
3. "Health Information Management: Concepts, Principles, and Practice" by Kathleen M. LaTour
4. "The Complete Guide to Medical Record Keeping" by Anya Turner
5. "Medical Record Documentation" by Michael J. Marks.

Course Code	Course Name	General Medicine and surgery	Course Category	Skill	Minor	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Recall the fundamental principles and concepts in general medicine and surgery.	1
CLO ₂	Explain the pathophysiology, diagnosis, and treatment options for common medical and surgical conditions.	2
CLO ₃	Apply diagnostic and therapeutic approaches to manage general medical and surgical cases.	3
CLO ₄	Analyze patient data, including clinical symptoms, lab results, and imaging studies, to formulate treatment plans.	4
CLO ₅	Evaluate the effectiveness of medical and surgical interventions in improving patient outcomes and managing complex conditions.	5

Module 1: Introduction to General Medicine and Surgical Principles

the fundamental concepts of general medicine, including common medical conditions, diagnosis, and treatment strategies, overview of surgical principles, including pre-operative assessments, anesthesia considerations, and post-operative care protocols.

Module 2: Medical Diagnosis and Treatment Techniques

the diagnostic process, including patient history-taking, physical examination, and diagnostic testing such as imaging, lab work, and specialized tests, treatment approaches for common medical conditions, such as pharmacological therapies, lifestyle modifications, and surgical interventions, allowing students to apply medical knowledge in clinical scenarios.

Module 3: Surgical Procedures and Techniques

common surgical procedures, techniques, and their indications. major and minor surgeries across various specialties, with an emphasis on patient preparation, sterile techniques, surgical tools, and intraoperative management. post-operative care, including monitoring for complications and patient recovery.

Module 4: Emergency Medicine and Surgical Interventions

management of medical and surgical emergencies, including trauma, cardiac arrest, respiratory failure, and acute abdomen. perform rapid assessments, initiate life-saving treatments, and coordinate with multidisciplinary teams during emergencies, including the role of surgery in acute care.

Module 5: Clinical Ethics and Patient Care in Medicine and Surgery

ethical considerations in medical and surgical practice, including patient consent, autonomy, and confidentiality, the importance of effective doctor-patient communication, shared decision-making,

and managing challenging clinical situations, ensuring the provision of compassionate and ethical care in both medical and surgical contexts.

Suggested Readings

1. "Current Diagnosis & Treatment in General Medicine" by Maxine A. Papadakis
2. "Principles and Practice of Surgery" by Sir Alfred Cuschieri
3. "Textbook of General Surgery" by Peter R. C. Harris
4. "General Surgery: Principles and Practice" by David J. Yousem
5. "Essentials of General Surgery" by Peter M. M. Elkin.

Course Code	Course Name	Business Communication	Course Category	General	AEC	L o	P 4	Pr o	C 4
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Discuss the scope and complexity of business communications	2
CLO2	Carry out effective interpersonal communication, including the use of listening skills, verbal skills and non-verbal communication	3
CLO3	Apply practical techniques for effective group communication, including presentations, interviews, meetings, conferences, public relations	3
CLO4	Carry out written business correspondence including letters, documents reports, etc.	3
CLO5	Communicate effectively with the help of digital media including emails, virtual meetings and social media posts	3

Module 1: Overview of Business Communications

Introduction to Business communication – Introduction, Scope of Business Communications, Complexity of Business Communications, Importance of Communication for Business, Impact of Poor Communication, Definition and Introduction to Business Communication, Types & Levels of Business Communication, Types of Business Communication, Levels of Business Communication, Real-Life Examples-Based Exercises for Practice, Dimensions of communication in an Organisation – Introduction, Discussing the Scope and Complexity of Business Communications, Common Dimensions of Communication in an Organization, Common Channels of Communication in an Organization, Real-Life Examples-Based Exercises for Practice, Channels of communication in an organization – Introduction, Discussing the Scope and Complexity of Business Communications, Understanding and Applying the Level of Communication in Vertical and Horizontal Hierarchy, Barriers to Business Communication – Introduction, Discussing the Scope and Complexity of Business Communications, Discussing the Barriers Observed in Effective Business Communications, Engaging in Real-Life Examples-Based Exercises to Overcome Communication Barriers.

Module 2: Interpersonal Skills

Effective interpersonal communication – Introduction, Carrying Out Effective Interpersonal Communication, Describing Effective Interpersonal Communication, Applying Knowledge through Real-Life Examples-Based Exercises, Listening Skills – Introduction, Carrying Out Effective Interpersonal Communication, Applying Effective Listening Skills, Enhancing Practical Mastery through Real-Life Examples-Based Exercises, Speaking Skills – Introduction, Carrying Out Effective Interpersonal Communication, Applying Effective Speaking Skills, Reinforcing Practical Mastery through Real-Life Examples-Based Exercises, Loud Reading Skills – Introduction, Understanding Non-Verbal Cues, Impact of Non-Verbal Communication, Developing Effective Non-Verbal

Communication Skills, Real-Life Examples and Exercises, Non-Verbal Communication – Introduction, Reading Beyond the Surface, Reading & Interpersonal Communication, Decoding the Unspoken, Real-Life Examples and Exercises.

Module 3: Group Communications

Principles of group communication – Introduction, Core Principles, Applicability Across Settings, Real-Life Exercises, Effective presentations – Introduction, Building a Winning Presentation, Time Management: Your Key Ally, Real-Life Examples and Exercises, Effective Meetings and conferences – Introduction, Building Effective Gatherings, Real-Life Examples and Exercises, Effective Interviews – Introduction, Preparation: Fueling Your Confidence, Shining in the Spotlight: Commanding the Conversation, Adapting to Diverse Stages: Navigating Different Dynamics, Beyond the Conversation: Leaving a Lasting Impression, Real-Life Exercises for Success.

Module 4: Written Business Correspondence

Letter Writing – Introduction, Core Principles for Clarity and Impact, Exploring Diverse Forms of Correspondence, Ethical Considerations and Cultural Awareness, Real-Life Exercises for Growth, Report Writing – Introduction, Key Principles, Types of Business Reports, Real-Life Exercises, Documentation maintenance – Introduction, The Value of Good Maintenance, Navigating the Physical and Digital, Mastering the Maze: Organization and Categorization, Version Control: Preserving the Chain of History, Safeguarding the Knowledge: Security Measures, Real-Life Exercises.

Module 5: Digital Business Correspondence

Email Etiquette – Introduction, The Pillars of Professionalism, To, CC, and BCC, Subject Line, Opening Salutation, Closing Salutation, Pro Tip, Virtual Meetings & Netiquette – Introduction, Choosing the Right Platform, Preparation is Key, Communication and Netiquette, Building Rapport and Collaboration, Real-Life Exercises, Visual Storytelling, Collaborative Learning, Expanding Your Toolbox, Examples for Real-Life Exercises, Digital Work Collaboration – Notion, etc. – Introduction, Building Bridges, Not Walls, The Digital Toolkit, Mastering the Symphony, Real-Life Exercises, Engaging Activities, Expanding Your Toolkit.

Module 6: Social Media Communications and Digital Marketing

Introduction to social media communications – Discuss the various social media communications used in business and digital tools and best practices associated with them, Introduction to digital marketing – Discuss the various social media communications used in business and digital tools and best practices associated with them.

Suggested Readings

1. Business Communication: Process and Product by Mary Ellen Guffey
2. Business Communication Today by Courtland L. Bovee and John V. Thill
3. The Business Communication Handbook by Judith Dwyer
4. Effective Business Communication by Herta A. Murphy
5. Business Communication: A Case Method Approach by P.D. Chaturvedi

Semester 6

Course Code	Course Name	Dietary Management	Course Category	Skill	Major	L	P	Pr	C
						0	3	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Recall that dietary management involves planning and controlling food intake to meet specific health goals, such as managing weight, controlling diabetes, or improving heart health.	1
CLO2	Explain how dietary management is tailored to individual needs, considering factors like age, medical conditions, and activity levels.	2
CLO3	Apply dietary management by demonstrating how a low-sodium diet can help manage high blood pressure.	3
CLO4	Analyze how dietary management and lifestyle changes work together to improve overall health and prevent chronic diseases.	4
CLO5	Evaluate how poor dietary management can lead to health issues like obesity, diabetes, or heart disease, affecting long-term well-being.	5

Module 1: Introduction to Dietary Management:

Understanding the role of dietary management in health, Key concepts in nutrition and its impact on chronic diseases, The role of healthcare providers in dietary planning, Overview of dietary assessments and nutrition screenings, The importance of individualized diet plans, The relationship between diet and various health conditions (e.g., diabetes, heart disease).

Module 2: Nutritional Assessment and Diet Planning:

Methods of dietary assessment (food diaries, 24-hour recall, food frequency questionnaires), Understanding dietary guidelines and recommendations (RDA, DRI), Factors influencing diet planning (age, gender, activity level, medical conditions), Establishing nutrition goals and objectives, Creating balanced meal plans for different health needs, Role of dietitians in meal planning and counseling.

Module 3: Therapeutic Diets for Chronic Conditions:

Dietary management of common chronic diseases (diabetes, hypertension, cardiovascular diseases), Special dietary plans for weight management, The role of nutrition in managing gastrointestinal disorders, Renal disease dietary guidelines, Low-sodium, low-fat, and low-sugar diets, Managing food allergies and intolerances through dietary modification.

Module 4: Diet for Special Populations:

Nutritional needs during pregnancy, infancy, and childhood, Dietary management for the elderly, Nutrition considerations for athletes and active individuals, Special dietary considerations for vegetarians and vegans, Managing malnutrition and undernutrition, Diet modifications for patients with disabilities or special needs.

Module 5: Food and Nutrition Therapy for Acute Conditions:

Dietary modifications in response to surgery or trauma, Nutritional management during hospitalizations and recovery, Enteral and parenteral nutrition, The importance of hydration and electrolyte balance, Managing nausea, vomiting, and loss of appetite, Supplementation and nutritional support in acute care.

Module 6: Food Safety, Nutrition Education, and Counseling:

Understanding food safety practices (handling, storage, preparation), Educating patients on healthy eating habits, Behavioral counseling and motivational interviewing techniques, Developing public health nutrition programs, Role of dietitians in community health and wellness initiatives, Monitoring and evaluating dietary interventions for effectiveness.

Suggested Readings

1. Nutrition and Dietetics in Healthcare Management – Joan Gandy
2. Dietary Management of Diabetes Mellitus – Roberta Reeder
3. Dietary Management: A Comprehensive Approach – Laura R. Fogg
4. Medical Nutrition Therapy: A Case Study Approach – Marcia Nahikian-Nelms
5. The Role of Diet in Health Care Management – David G. L. McCready.

Course Code	Course Name	Biomedical Waste Management	Course Category	Skill	Minor	L	P	Pr	C
						3	0	0	3
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO1	Recall the key principles and regulations of biomedical waste management.	1
CLO2	Explain the different types of biomedical waste and their proper classification and disposal methods.	2
CLO3	Apply appropriate procedures for handling, storage, and disposal of biomedical waste in healthcare settings.	3
CLO4	Analyze the environmental and health impacts of improper biomedical waste disposal and the importance of safe practices.	4
CLO5	Evaluate the effectiveness of biomedical waste management programs in minimizing health risks and ensuring regulatory compliance.	5

Module 1: Introduction to Biomedical Waste and Regulations

definition of biomedical waste, the various types of biomedical waste (infectious, non-infectious, hazardous), and the regulations governing its management, global standards and national guidelines for biomedical waste disposal, with a focus on the role of healthcare facilities in waste management.

Module 2: Classification and Segregation of Biomedical Waste

identifying and classifying different categories of biomedical waste, such as sharps, pathological waste, pharmaceutical waste, and chemical waste., importance of proper segregation at the source to ensure safe handling and disposal, including the use of color-coded bins and labels for each waste type.

Module 3: Handling, Storage, and Transportation of Biomedical Waste

safe handling and storage practices for biomedical waste to prevent contamination and exposure, guidelines on storing waste in appropriate containers, the need for secure transportation within healthcare facilities, and the protocols for safely moving waste to disposal sites.

Module 4: Treatment and Disposal Methods

various treatment and disposal methods for biomedical waste, including autoclaving, incineration, chemical disinfection, and landfilling, emerging technologies and techniques for reducing the environmental impact of waste disposal, as well as the criteria for selecting appropriate methods based on the type of waste.

Module 5: Health and Environmental Impact of Improper Waste Management

potential risks of improper biomedical waste management, including exposure to infections, toxins, and environmental pollution., consequences of inadequate waste disposal on public health and the environment, emphasizing the need for education, training, and adherence to waste management protocols to mitigate these risks.

Suggested Readings

1. Biomedical Waste Management by M.K. Jha
2. Manual of Biomedical Waste Management by Anil Kumar Bhatia
3. Waste Management in Health Care Facilities by M. A. S. S. Sudhakar
4. Biomedical Waste: A Manual for Healthcare Institutions by Vinay Kumar
5. Biomedical Waste Management and Infection Control by S. G. Joshi.

Course Code	Course Name	Universal Human Values	Course Category	General	VAC	L	P	Pr	C
						2	0	0	2
Pre-requisite		Nil	Co-requisite		Nil				

Course learning outcomes:

CLO No.	At the end of the course the learners will be able to:	Bloom's Taxonomy (Bt) Level
CLO ₁	Explain the importance of living a harmonious life aligned with universal human values	2
CLO ₂	Discuss the vast potential of human beings and their responsibility to the universe on its account	2
CLO ₃	Develop universal human values and practice them consciously to be good human beings	3
CLO ₄	Conduct oneself in alignment with the universal human values while dealing with the ways of the world	3
CLO ₅	Explain the importance of living a harmonious life aligned with universal human values	2

Module 1: Introduction to Universal Human Values

Concept of Universal Human Values – Overview, What are values?, Human values, What are universal human values?, Relation with holistic living – What is holistic living?, Relation of universal human values and holistic living.

Module 2: Living in Harmony

Living in harmony - as a human – What is Living in Harmony?, Life in harmony, What does living in harmony look like for an individual?, Living in harmony - as a family – Key roles of shared values, Shared values of families, Living in harmony - as a society and a race – Respect, Equality, Kindness, Honesty, Safety, Diversity, Cooperation, Environmental Care, Freedom.

Module 3: Human Potential

Human potential – individual – How do we unlock human potential?, How to identify our potential?, Human potential – collective – Overview, Collaboration and working together, Impact of individual self on environment – Ripple Effect of Your Interactions, Impact of social group on their environment – Impact of family on environment, Impact of peer group on environment, Who is responsible? – Harmful impact of humans, Positive impact of humans.

Module 4: Developing Universal Human Values

Introduction to Developing Universal Human Values – Developing Human Values, Self Reflection, Educate Yourself, Promote Open-Mindedness, Volunteer and Service, Emulate Role Models in Actions, Engage in Dialogue, Develop Global Perspective, Love and Compassion – Love and its forms, Love, Compassion and Inter-relatedness, The greatest proponents of Love and Compassion, Practicing Love and Compassion, Truth – Introduction to Truth, Great Individuals who are

remembered for their value of truth, Practising Truth, Non-Violence – Introduction to non-violence, Important people who followed and propagated non-violence, Practising non-violence, Service – Introduction to service, Various forms of Service, Constitutional Values, Justice and Human Rights – Fundamental Values, Fundamental Rights, Fundamental Duties, Patriotism, Pride and Gratitude for the Nation, Good Practices – Self Worth, Self-Care, Holistic Living, Mindfulness and Meditation, Self-Reflection, Journal Writing, Impact Assessment.

Module 5: Common Scenarios

Routine Scenarios – Love and Compassion based scenarios, Truth based scenarios, Non-violence based scenarios, Peace based scenarios, Service based scenarios, Renunciation or Sacrifice based scenarios, Life-changing Scenarios – Career Dilemma, Relationship Conflict, Health Crisis, Moral and Ethical Dilemma, Personal Loss, Financial Crisis.

Suggested Readings

1. Human Values and Education by R. R. Gaur
2. The Universal Declaration of Human Rights by UNESCO
3. The Essence of Human Values by G. C. Pati
4. Human Values: A Sociological Perspective by M. H. Geyer
5. Human Values and Ethics in the Workplace by Rajendra P. Joshi.