

DEEN DAYAL UPADHYAY KAUSHAL KENDRA

MAHISHADAL RAJ COLLEGE

BVoc in HEALTH CARE

PO	SUMMARY	Description
PO1	SPECIALIZED KNOWLEDGE OF THE DISCIPLINE	B.Voc. in H.C. courses are structured to provide theoretical knowledge coupled with practical experiences, preparing students for a range of careers such as nurses, doctors, healthcare administrators, pharmacists, and healthcare among others.
PO2	ANATOMY & PHYSIOLOGY	Anatomy and Physiology (A&P) is a comprehensive study of the structure and function of the human body. It explores the intricate relationships between body systems, organs, tissues, and cells, providing a foundation for understanding human health and disease.
PO3	PARASITOLOGY & IMMUNOLOGY	Parasitology and Immunology are two interconnected fields of study that explore the complex relationships between hosts and pathogens.
PO4	FIRST AID, EMERGENCY & DRESSER	First Aid, Emergency, and Dresser are essential components of medical care, focusing on immediate attention and treatment for injuries and illnesses.
PO5	VACCINATION & STERILIZATION	Vaccination and Sterilization are crucial concepts in healthcare, focusing on disease prevention and infection control.
PO6	BASIC ENDOCRINOLOGY	Basic Endocrinology is the study of the endocrine system, which is a network of glands and organs that produce and regulate hormones in the body. Hormones are chemical messengers that control various bodily functions, such as growth, metabolism, and reproductive processes.
PO7	BASIC MEDICAL NURSING & BASIC SURGICAL NURSING	Basic Medical Nursing and Basic Surgical Nursing are fundamental components of nursing education, focusing on providing quality care to patients with various medical and surgical conditions.
PO8	STAFF SAFETY INFECTION CONTROL	The study of Staff Safety Infection Control focuses on protecting healthcare workers from occupational exposure to infectious diseases and preventing the transmission of infections in healthcare settings.
PO9	OCCUPATIONAL THERAPY	Occupational Therapy (OT) is a healthcare profession that focuses on enabling individuals to achieve independence in all aspects of life.

PO10	NUTRITION AND DIET COUNSELLOR	Nutrition and Diet Counselor is a healthcare professional who specializes in providing personalized nutrition advice and guidance to individuals or groups.
-------------	--------------------------------------	---

Program Specific Outcomes Nos.	Program Specific Outcomes (PSO)
PSO1	Demonstrate compassionate, patient-centered care, respecting individual differences and needs.
PSO2	Apply evidence-based research and guidelines to inform healthcare decisions and practices.
PSO3	Develop effective communication and collaboration skills with patients, families, and healthcare teams.
PSO4	Demonstrate critical thinking, clinical reasoning, and problem-solving skills in healthcare settings.
PSO5	Provide culturally sensitive care, recognizing and respecting diverse backgrounds, values, and beliefs.
PSO6	Implement health promotion and disease prevention strategies, addressing individual and population health needs.
PSO7	Contribute to quality improvement initiatives, prioritizing patient safety and minimizing medical errors.
PSO8	Understand healthcare systems, policies, and regulations, advocating for patients and communities.
PSO9	Commit to ongoing learning, professional growth, and development in healthcare practice.

PAPERNAME	COURSE	COURSEOUTCOME
<u>SEMESTER I</u> INTRODUCTION TO	HC 1.01	HC 1.01 .1. Each student will have a clear idea of Human Anatomy & Physiology, Study of the structure and relationship between body parts, Examination of how the

HEALTH CARE		body functions. HC 1.01.2. Understanding human body structure and function.
PHARMACY	HC 1.02	After the completion of this course students will be able to know : HC 1.02 .1. Human Healthcare and Safety Regulations. HC 1.02 .2. Laboratory Preparation in Medicine with use.
MULTIPURPOSE HEALTH CARE & COMMUNITY MEDICINE	HC 1.03	HC 1.03.1. For the control of communicable disease, Borne disease, as well as environmental sanitation, Detection of disease out breaks & there Control.
CELL BIOLOGY	HC 1.04	HC 1.04.1. Study of cell structure with function. HC 1.04.2. Describe the Evolution, Diversity and replication of cells.
BASIC MICROBIOLOGY	HC 1.05	HC 1.05.1. Gain knowledge about the different cell, Organelles of Microorganisms and there detailed function. HC 1.05.2. This course will enable the students to Study about Microbiology.
HEREDITARY DISEASE	HC 1.06	HC 1.06.1. Identification of genetic causes. HC 1.06.2. Improved patient care and management. HC 1.06.3. Family planning and reproductive options
<u>SEMISTER - II</u> PATHOLOGY	HC 2.01	HC 2.01.1. Disease Diagnosis. HC2.01.2. Understanding Disease Mechanisms HC 2.01.3. Development of Treatment Options HC 2.01.4. Improved Patient Outcomes HC2.01.5. Quality Assurance and Quality Control
PHARMA SALES	HC 2.02	HC 2.02.1. Sales call effectiveness. HC 2.02.2. Sales representative productivity. HC 2.02.3. Physician-rep relationships. HC 2.02.4. Digital interactions.
PHYSIOTHERAPY	HC 2.03	HC 2.02.1. Improved mobility and function. HC 2.02.2. Pain management. HC 2.02.3. Injury prevention and rehabilitation. HC 2.02.4. Enhanced physical activity and exercise
PARASITOLOGY	HC 2.04	HC 2.04.1. Understanding and control of parasitic diseases. HC 2.04.2. Improved public health and hygiene. HC 2.04.3. Ecological insights and environmental monitoring. HC 2.04.4. Increased food safety and security HC 2.04.5. Improved understanding of human micro biome and immune system. HC 2.04.6. The study of Parasitology has significantly impacted human and animal health, ecology, and our understanding of complex biological systems.
IMMUNOLOGY	HC 2.05	HC 2.05.1. The study of Immunology has numerous significant outcomes: HC 2.05.2. Development of vaccines and immunizations. HC 2.05.3. Understanding and treatment of autoimmune diseases. HC 2.05.4. Improved understanding of microbial

		<p>pathogenesis and host-pathogen interactions.</p> <p>HC 2.05.5. The study of Immunology has revolutionized our understanding of the immune system, leading to significant advances in human health, disease treatment, and prevention.</p>
PEDIATRIC NURSING & GROWTH & DEVELOPMENT	HC 2.06	<p>The study of Pediatric Nursing and Growth & Development has numerous significant outcomes:</p> <p>HC 2.06.1. Improved child health outcomes.</p> <p>HC 2.06.2. Optimized developmental support.</p> <p>HC 2.06.3. Improved pediatric nutrition and feeding practices.</p> <p>HC 2.06.4. The study of Pediatric Nursing and Growth & Development has transformed pediatric care, improving health outcomes, supporting families, and enhancing the well-being of children.</p>
MED.SURG.NURSING - ORTHOPAEDICS ,E.N.T., SKIN & COMMUNICABLE DISEASES , EYE , GYNAE GENERAL MED. URG	HC 2.07	<p>HC 2.07.1. Medical-surgical nursing is a specialized field of nursing that deals with the care of adult patients who are suffering from various medical and surgical conditions. The study outcomes for medical-surgical nursing typically include:</p> <ol style="list-style-type: none"> 1. Understanding of pathophysiology and management of common medical and surgical conditions 2. Ability to assess and prioritize patient needs 3. Development of nursing care plans and implementation of evidence-based interventions 4. Proficiency in administering medications and performing various medical-surgical procedures 5. Understanding of diagnostic tests and interpretation of results 6. Ability to educate patients and families on self-care and disease management <p>Some specific study outcomes may include:</p> <ol style="list-style-type: none"> 1. Understanding of cardiovascular, respiratory, gastrointestinal, and renal systems. 2. Management of pain, wound care, and pressure injuries. 3. Care of patients with cancer, diabetes, and neurological disorders 4. Understanding of pharmacology and medication management 5. Development of communication and interpersonal skills
BIOINSTRUMENTATION AND DATA HANDLING	HC 2.08	<p>HC 2.08.1.Bio-Instruments:</p> <ol style="list-style-type: none"> 1. Accurate use of monitoring equipment: 2. Proficient use of diagnostic equipment 3. Skilled use of medical devices: 4. Troubleshooting instrument malfunctions <p>HC 2.08.1.Data Handling:</p> <ol style="list-style-type: none"> 1. Documentation.

		<ol style="list-style-type: none"> 2. Effective data analysis. 3. Data-driven decision making. 4. Electronic health record management. 5. Data privacy and security. 6. Research applications.
<u>SEMESTER III</u>	HC 3.01	<p>HC 3.01.1.Wound assessment and management. Bandaging and dressing techniques.</p> <p>HC 3.01.2.Bleeding control and hemorrhage management.</p> <p>HC 3.01.3. Fracture and sprain management.</p> <p>HC 3.01.4. Infection control and prevention.</p> <p>HC 3.01.5 Documentation and communication.</p> <p>HC 3.01.6. Critical thinking and decision-making.</p>
VACCINATION & STERILIZATION	HC 3.02	<p>HC 3.02.1. Vaccination:</p> <ol style="list-style-type: none"> 1. Immune response understanding. 2. Vaccine types and uses. 3. Vaccination schedules and protocols. 4. Vaccine-preventable disease epidemiology. <p>HC 3.02.2. Sterilization:</p> <ol style="list-style-type: none"> 1. Sterilization methods and techniques. 2. Instrument sterilization and disinfection. 3. Sterilization safety and risk management:
MEDICAL RECORD KEEPING	HC 3.03	<p>HC 3.03.1. Here are some possible study outcomes for Medical Record Keeping:</p> <ol style="list-style-type: none"> 1. Accurate documentation: Understand the importance of accurate and complete documentation in medical records. 2. Record organization and management: Learn to organize and manage medical records in a logical and systematic way. 3. Confidentiality and security: Study the principles of maintaining confidentiality and security of medical records.
BASIC BIOCHEMISTRY	HC 3.04	<p>HC 3.04.1. Understanding of biomolecules:</p> <ol style="list-style-type: none"> 1. Learn about the structure, function, and properties of biomolecules such as carbohydrates, lipids, proteins, and nucleic acids. 2. Metabolic pathways: Study the major metabolic pathways, including glycolysis, gluconeogenesis, citric acid cycle, and oxidative phosphorylation. 3. Enzyme kinetics and mechanisms: Understand how enzymes work, including kinetics, mechanisms, and regulation. 4. Bioenergetics and energy production: Learn about the production and utilization of energy in cells, including ATP synthesis and hydrolysis. 5. Nutrition and digestion: Study the biochemical processes involved in nutrition and digestion, including nutrient absorption and metabolism.
BASIC ENDOCRINOLOGY	HC 3.05	<p>HC 3.05.1. Understanding of endocrine glands and hormones.</p> <p>HC 3.05.2. Hormone regulation and balance.</p> <p>HC 3.05.3. Endocrine system development and function</p> <p>Endocrine disorders and diseases:</p>

<p>BASIC MEDICAL NURSING & BASIC SURGICAL NURSING</p>	<p>HC 3.06</p>	<p>HC 3.06.7. Here are some possible study outcomes for Basic Medical Nursing and Basic Surgery Nursing:</p> <p>Basic Medical Nursing:</p> <ol style="list-style-type: none"> 1. Assessment and monitoring of medical patients. 2. Medication management and administration. 3. Nutrition and hydration management. 4. Infection control and prevention. <p>Basic Surgery Nursing:</p> <ol style="list-style-type: none"> 1. Preoperative and postoperative care. 2. Surgical site management and wound care. 3. Surgical complications and emergency management.
<p><u>SEMESTER IV</u></p> <p>RADIOLOGY & X-RAY TECHNICIAN</p>	<p>HC 4.01</p>	<p>HC 4.01.1. Accurate disease diagnosis and monitoring: Radiologic imaging enables early detection, diagnosis, and monitoring of various diseases.</p> <p>HC 4.01.2. Improved patient outcomes and treatment planning: Radiology studies inform treatment decisions, reducing errors and improving patient care.</p> <p>HC 4.01.3. Advancements in medical imaging technologies: Research in Radiology drives innovation in imaging modalities, such as MRI, CT, and PET scans.</p> <p>HC 4.01.4 Enhanced patient safety and radiation protection: Understanding radiation effects and safety measures minimizes risks and ensures safe imaging practices.</p>
<p>OPERATION THEATRE (TECHNICIAN)</p>	<p>HC 4.02</p>	<p>HC 4.02.1.Skilled surgical team support: OT technicians provide crucial assistance to surgeons, anesthesiologists, and nurses during surgical procedures.</p> <p>HC 4.02.2.Efficient surgical workflow management: OT technicians ensure smooth surgical processes, reducing delays and improving patient safety.</p> <p>HC 4.02.3.Sterilization and infection control expertise: OT technicians maintain strict sterilization and infection control protocols, minimizing patient risk.</p> <p>HC 4.02.4. Advanced surgical equipment operation and maintenance: OT technicians manage and troubleshoot complex surgical equipment, ensuring optimal function.</p> <p>HC 4.02.5.Patient safety and care excellence: OT technicians contribute to patient-centered care, ensuring comfort, dignity, and safety during surgical procedures.</p>
<p>REPRODUCTIVE BIOLOGY AND FAMILY PLANNING</p>	<p>HC 4.03</p>	<p>HC 4.03.1. Improved understanding of human reproduction: Insights into reproductive biology inform fertility management and reproductive health.</p> <p>HC 4.03.2. Development of effective contraceptive methods: Research in reproductive biology leads to innovative contraceptive options, enhancing family</p>

		<p>planning.</p> <p>HC 4.03.3. Enhanced fertility treatment options: Understanding reproductive biology improves fertility treatment success rates and accessibility.</p> <p>HC 4.03.4. Reduced maternal and infant mortality rates: Family planning education and access to reproductive healthcare decrease maternal and infant mortality.</p>
<p>INTRODUCTION TO HOSPITAL OPERATIONS</p> <p>INTRODUCTION TO CARDIAC CARE TECHNOLOGY</p>	<p>HC 4.04</p>	<p>HC 4.04.1. Hospital Operations:</p> <ol style="list-style-type: none"> 1. Understanding of hospital management and organization: Familiarity with hospital structure, departments, and functions. 2. Knowledge of healthcare policies and regulations: Insight into laws, guidelines, and standards governing hospital operations. 3. Effective communication and teamwork skills: Ability to collaborate with healthcare professionals and departments. 4. Patient-centered care and safety focus: Understanding of patient needs, safety protocols, and quality improvement initiatives. Cardiac Care Technology. 5. Understanding of cardiac anatomy and physiology: Foundation in heart structure, function, and circulation. 6. Familiarity with cardiac diagnostic and monitoring technologies: Knowledge of ECG, echocardiography, and other cardiac testing modalities. <p>HC 4.04.2. Combined Outcomes:</p> <ol style="list-style-type: none"> 1. Comprehensive understanding of cardiac patient care: Integration of hospital operations and cardiac care technology knowledge. 2. Enhanced patient safety and quality care: Application of hospital operations and cardiac care technology principles to ensure optimal patient outcomes.
<p>PARAMEDICAL TRAINING IN CARDIOLOGY MEDICINE</p>	<p>HC 4.05</p>	<p>HC 4.05.1. Skilled cardiac care professionals: Paramedics trained in cardiology can provide high-quality emergency care.</p> <p>HC 4.05.2. Improved cardiac arrest response and management: Enhanced skills in CPR, defibrillation, and cardiac rhythm interpretation.</p> <p>HC 4.05.3. Effective cardiac patient assessment and diagnosis: Ability to identify and manage cardiac conditions, such as myocardial infarction and arrhythmias.</p>
<p>STAFF SAFETY</p> <p>INFECTION CONTROL</p>	<p>HC 4.06</p>	<p>HC 4.06.1. Reduced risk of healthcare-associated infections (HAIs): Effective infection control practices protect patients and staff.</p> <p>HC 4.06.2. Improved staff safety and well-being: Emphasis on staff safety reduces risk of injury and illness.</p> <p>HC 4.06.3. Enhanced patient safety and quality care:</p>

		<p>Infection control measures ensure a safe environment for patients.</p> <p>HC 4.06.4. Compliance with regulatory requirements and standards: Adherence to guidelines and regulations ensures accreditation and certification.</p>
ECG	HC 4.07	<p>HC 4.07.1. Advancements in cardiac research and technology: ECG research drives innovation in cardiac diagnostic and therapeutic technologies.</p> <p>HC 4.07.2. Development of new ECG interpretation techniques: Continuous study of ECG leads to improved interpretation methods and algorithms.</p> <p>HC 4.07.3. Global standardization of ECG practices: International collaboration and research promote standardized ECG practices and guidelines.</p>
BIOMEDICAL WASTE	HC 4.08	<p>HC 4.08.1. Protection of public health and environment: Proper disposal of biomedical waste prevents the spread of diseases and contamination of soil and water.</p> <p>HC 4.08.2. Reduced risk of infection and disease transmission: Effective management of biomedical waste minimizes the risk of infection and disease transmission to healthcare workers, patients, and the community.</p> <p>HC 4.08.3. Compliance with regulations and standards: Adherence to biomedical waste management guidelines ensures compliance with local, national, and international regulations.</p>
<u>SEMESTER V</u> DIALYSIS TECHNICIAN	HC 5.01	<p>HC 5.01.1. Provide safe and effective dialysis treatment to patients with kidney failure.</p> <p>HC 5.01.2. Monitor and respond to patient needs during treatment.</p> <p>HC 5.01.3. Ensure patient comfort and well-being during treatment.</p> <p>HC 5.01.4. Operate dialysis equipment and machines.</p> <p>HC 5.01.5. Perform routine maintenance and troubleshooting on dialysis equipment.</p> <p>HC 5.01.6. Understand kidney disease and dialysis principles.</p> <p>HC 5.01.7. Identify and respond to complications during treatment.</p> <p>HC 5.01.8. Collaborate with healthcare teams to provide comprehensive care.</p>
OCCUPATIONAL THERAPY	HC 5.02	<p>HC 5.02.1. Improved ability to perform daily living activities (ADLs) and instrumental activities of daily living (IADLs).</p> <p>HC 5.02.2. Enhanced participation in meaningful occupations and activities.</p> <p>HC 5.02.3. Increased independence in self-care, productivity, and leisure activities.</p>
PSYCHOLOGY AND TREATMENT	HC 5.03	<p>HC 5.03.1. Provides a comprehensive framework for studying Psychology and Treatment. You can expand or modify it to suit your specific needs and interests.</p>
DISCIPLINE SPECIFIC ELECTIVE (DSE)		

<p style="text-align: center;"><u>SEMESTER VI</u></p> <p style="text-align: center;">NUTRITION AND DIET COUNSELLOR</p>	<p>HC 6.01</p>	<p>HC 6.01.1. Improved overall health and well-being: Personalized nutrition plans can lead to improved physical and mental health.</p> <p>HC 6.01.2. Weight management: Effective nutrition counseling can result in healthy weight loss or gain.</p> <p>HC 6.01.3. Increased energy levels: Balanced nutrition plans can boost energy levels and reduce fatigue.</p> <p>HC 6.01.3. Improved digestion and gut health: Nutrition counseling can help resolve digestive issues and promote gut health.</p>
<p style="text-align: center;">INTENSIVE CARE 1</p>	<p>HC 6.02</p>	<p>HC 6.02.1. Improved survival rates: Intensive care can significantly improve survival rates for critically ill patients.</p> <p>HC 6.02.2. Reduced morbidity and mortality: Timely and effective intensive care can reduce the risk of complications and death.</p> <p>HC 6.02.3. Enhanced patient recovery: Intensive care can facilitate faster and more complete recovery from illness or injury.</p>
<p style="text-align: center;">INTENSIVE CARE 2</p>	<p>HC 6.03</p>	<p>HC 6.03.1. Better management of pain and discomfort: Intensive care teams can effectively manage pain and discomfort, improving patient comfort.</p> <p>HC 6.03.2. Increased patient safety: Intensive care units (ICUs) prioritize patient safety, reducing the risk of medical errors and adverse events.</p>
<p style="text-align: center;">INTENSIVE CARE 3</p>	<p>HC 6.04</p>	<p>HC 6.04.1. Improved patient outcomes: Intensive care can lead to better patient outcomes, including reduced length of stay and improved quality of life.</p> <p>HC 6.04.2. Enhanced family support and involvement: Intensive care teams often provide emotional support and involve families in care decisions.</p>
<p style="text-align: center;">DEMONSTRATION LAB, GENERAL MEDICAL AND SURGERY WARD:</p>	<p>HC 6.05</p>	<p>HC 6.05.1. Hands-on clinical experience: Students gain practical skills in a real-world setting.</p> <p>HC 6.05.2. Improved patient care: Students learn to prioritize patient needs, leading to enhanced care.</p> <p>HC 6.05.3. Development of critical thinking and problem-solving skills: Students encounter diverse cases, fostering critical thinking.</p>

HEMATOLOGY	HC 6.06	HC 6.06.1. Accurate diagnosis and treatment of blood disorders: Hematology helps diagnose and manage blood-related conditions, such as anemia, bleeding disorders, and blood cancers. HC 6.06.2. Improved patient outcomes and survival rates: Timely and effective diagnosis and treatment of blood disorders can improve patient outcomes and survival rates.
-------------------	----------------	--