# SUMANDEEP VIDYAPEETH

(Declared as Deemed to be University under Section 3 of the UGC Act 1956)

Accredited by NAAC with a CGPA of 3.53 out of four-point scale at 'A' Grade Category – I deemed to be university under UGC Act - 2018 At & Post Piparia, Tal: Waghodia 391760 (Gujarat) India. Ph: 02668-245262/64/66, Telefax: 02668-245126, Website: www.sumandeepvidyapeethdu.edu.in



CURRICULUM

Diploma in CANCER CARE ASSISTANT

Attested CTC

Shasane 15/2/2021

Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University Vill. Piparia, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)





**AMENDED UP TO DECEMBER -2020** 

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## INTRODUCTION

## Scope

The quality of paramedical care has improved tremendously in the last few decades due to the advances in technology, thus creating fresh challenges in the field of healthcare. It is now widely recognized that health service delivery is a team effort involving both clinicians and non-clinicians, and is not the sole duty of physicians and nurses. Professionals that can competently handle sophisticated machinery and advanced protocols are now in high demand. In fact, diagnosis is now so dependent on technology, that paramedical and healthcare professionals are vital to successful treatment delivery.

Effective delivery of healthcare services depends largely on the nature of education, training and appropriate orientation towards community health of all categories of health personnel, and their capacity to function as an integrated team, with a range of skills and expertise, play key roles within the National Health Service, working autonomously, in multi-professional teams in various settings. All of them are first-contact practitioners and work across a wide range of locations and sectors within acute, primary and community care.

## Learning goals and objectives for allied and healthcare professionals

The learning goals and objectives of the undergraduate and graduate education program will be based on the performance expectations. They will be articulated as learning goals (why we teach this) and learning objectives (what the students will learn). Using the framework, students will learn to integrate their knowledge, skills and abilities in a hands-on manner in a professional healthcare setting.

## **Program outcomes**

- To provide surgical care to patients.
- Under supervision of surgeon, to ensure safe and effective conduct of invasive and non-invasive surgical procedures.
- To ensure operating room environment is safe and the operative procedure is conducted under conditions that maximize patient safety.
- To prepare professionals to be expert in theory and application of the principles of asepsis and sterile techniques.
- To combine knowledge of human anatomy, surgical procedures and implementation of tools to facilitate a physician's performance of diagnostic procedures.

## Ethics and accountability

Students will understand core concepts of clinical ethics and law so that they may apply these to their practice as healthcare service providers. Program objectives should enable the students to:

- Describe and apply the basic concepts of clinical ethics to actual cases and situations
- Recognize the need to make health care resources available to patients fairly, equitably and without bias, discrimination or undue influence
- Demonstrate an understanding and application of basic legal concepts to the practice employ professional accountability for the initiation, maintenance and termination of patient-provider relationships

confidentiality

commitment to professional excellence

The student will execute professionalism to reflect in his/her thought and action a range of

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attributes and characteristics that include technical competence, appearance, image, confidence level, empathy, compassion, understanding, patience, manners, verbal and nonverbal communication, an anti-discriminatory and non-judgmental attitude, and appropriate physical contact to ensure safe, effective and expected delivery of healthcare.

## Eligibility for admission

- Candidate should have passed 10 + 2 with science(PCB)
- Minimum percentage of marks: 55% aggregate. •

## Duration of the course

Duration of the course is 2 years +1 year Internship

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

## Attendance

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

1.75% attendance in theoretical

2. 80% in Skills training (practical) for qualifying to appear for the final examination.

No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition etc.

Assessment: Assessments should be completed by the academic staff, based on the compilation of the student's theoretical & clinical performance throughout the training programme. To achieve this, all assessment forms and feedback should be included and evaluated. Student must attain at least 50% marks in each Theory, Internal assessment and Practical independently / separately for each individual subject

## **COURSE OF INSTRUCTION**

Course Name	Course Code	Theory (In hrs.) (Class and lab)	Practical (In hrs.) (Clinical)	Total (in Hours)
First Year - Total Hours 360			·	
Anatomy	DCCA101	60	40	100
Physiology	DCCA102	60	40	100
Biochemistry	DCCA103	30	30	60
Pathology & Microbiology	DCCA104	60	40	100
Nursing Care of the patient with cancer Treatment modalities for Site Specific Cancer & oncology emergencies	DCCA201 DCCA202	40	60 60	100
Cancer Therapy & Radiotherapy	DCCA203	40	60	100
3 <sup>rd</sup> Year- Internship	Total hours	-2184		
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## SCHEME OF EXAMINATION

First Year				
SUBJECT CODE	SUBJECTS	EXAMINATION PATTERN		
		Internal	Final	TOTAL
DCCA101	Anatomy	20	80	100
DCCA102	Physiology	20	80	100
DCCA103	Pathology & Microbiology	20	80	100
DCCA104	Biochemistry	20	80	100
Second Year				
DCCA201	Nursing Care of the patient with cancer	20	80	100
DCCA202	Treatment modalities for Site Specific Cancer & oncology emergencies	20	80	100
DCCA203	Cancer Therapy & Radiotherapy	20	80	100

# FIRST YEAR DIPLOMA IN CANCER CARE ASSISTANT

#### Anatomy (60HOURS)

**DCCA101** 

## UNIT I

## Description of a typical animal cell:

Cell mitosis; genes; sex cell; ova and spermatozoa. Fertilisation of the ovum. Broad lines of embryonic development. Cell function and Differentiation of tissues.

## UNIT II

## Structure of General tissues:

Epithelium; simple and complex epithelia; glands; skin.

Connective tissue; fibrous tissue; cartilage; bone; Haversian systems; blood; numbers and types of cells in blood; clotting of blood. Muscle tissue; involuntary, voluntary and Cardiac muscle. Nerve tissue.

## UNIT III

## Bones, joints and loco motor system:

General description of bones, their main

Processes and attachments, 'including the skull with emphasis on the skull as a whole. Development of bones, Primary and secondary bone centres; diaphysis and epiphysis. Position and function of main joints. Some common diseases and injuries of bones and Joints; Healing of fractures.

UNIT WThorax and Abriginen: 15

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Structure of thoracic cage, abdominal cavity; diaphragm and Mediastinum.

## **UNIT V: Heart and Blood Vessels:**

Structure and function of the heart, pericardium, peripheral Vascular system; names of main arteries and veins, circulation. Common terms used in Connection with diseases of this system.

## UNIT VI: Respiratory system:

Nasal passages and accessory nasal sinuses, pharynx and larynx, trachea, bronchi and lungs; pleura, nature and function of respiration. Common terms used in connection with diseases of this system.

## UNIT VII: Lymph node Groups:

Lymph and tissue fluid, main lymphatic gland groups and Drainage areas, lymphoid tissue and tonsil.

## UNIT VIII: Reticule-Endothelial system:

Spleen and liver, bone marrow, extent and nature, Physiology of the red and white blood corpuscle's.

## UNIT IX: Alimentary system:

Mouth, tongue and teeth, salivary glands, pharynx and oesophagus, stomach, small and large bowel, liver and biliary tract, pancreas, motility of thealimentary tract; digestion, absorption and metabolism, nutrition and dietetics,

Common terms used in connection with diseases of this system.

#### **UNIT X: Urinary tract**

Kidneys, ureters, bladder and urethra; urine formation & excretion, Common terms used in connection with diseases of the system.

**UNIT XI: Reproductive system:** Male genital tract; testes, epididymis, seminal vesicle and Prostate; female genital tract; uterine tubes, ovaries, uterus, vagina and vulva, the Mammary glands; menstruation, pregnancy and lactation; common terms used in Connection with diseases of this system.

#### **UNIT XII: Endocrine glands:**

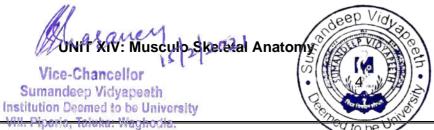
Anatomy and function of pituitary, thyroid, para-thyroids, adrenal, Thymus, pancreas and gonads as endocrine organs; common terms used in connection With diseases of this system.

#### UNIT XIII: Nervous system:

Brain; main subdivisions and lobes; Brain Stem, Cerebellum, Inferior

calculi, Superior calculi, cerebral hemisphere, Diencephalon, Rhinencephalon, thalamus, hypothalamus, Internal Capsule, Basal ganglia, Pons, Medulla, corpus striatum, visual radiations, Thalami cortical radiation, auditory radiation, blood supply of brain, ventricular system, spinal cord (segments & areas), concept of motor, sensory

and reflex pathways; meninges and cerebrospinal fluid (formation & circulation); autonomic nervous system; pyramidal system, Extra pyramidal systems, common terms used in **Arrestich With** diseases of this system, Anatomic integration, Intracortical integration.



Fascia - hard connective tissue.

**Upper extremity** joints with extra articular structures, osteology - bones of upper limb and hand - soft parts - breast, pectoral region and muscles, fasciae, ligaments, blood vessels, nerves with lymphatic drainage of the upper limb.

**Lower extremity** - Osteology - bones and joints with extra articular structure of lower limb, blood vessels and nerves, lymphatic drainage of leg, arches of the foot, skin of the foot.

**Trunk** - osteology - all the bones of the spine i.e. cervical thoracic - lumber vertebrae, sacrum, coccyx, ribcage.

**Soft parts** – intervertebral joints, intervertebral disc, Ligaments and muscles (all to be elaborated) of the spine intercostal muscles.

Bones of the skull and mandible - muscles of the face, extra ocular muscles, Salient points about the eyeball, internal ear.

**UNIT XV:** Special sensory organs: Structure and function of the eye; structure and function of the ear; structure and function of the skin.

**DCCA102** 

#### Physiology (60HOURS)

## **UNIT I: General Physiology**

Defination, Function And Structure of Cell Cell Cycle-meiosis, mitosis Definition of Diffusion, osmosis, filtration, surface tension **UNIT II BLOOD Define Blood** Composition & function of Blood Defferent types of blood cells Erythropoiesis Heamoglobin Function of WBC Hemostasis

## UNIT III

Nerve – Muscle Physiology Resting membrane potential & Action Potential Types of muscle & Mechanism of Muscle Contraction Neuromuscular Junction & Properties of nerve fibre Secretion & Composition & function of CSF

# UNIT IV GIT

Movement of GIT Digestive & Mechanism of Vomiting Digestive Juices in upper digestive tract

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UNIT V Excretory System Micturition Mechanism of Urine formation Regulation of acid base balance

## UNIT VI

## **Respiratory System**

Mechanism of breathing Hypoxia O2 and CO2 transport Pulmonary Volume & Capacities

## UNIT VII Cardio Vascular System

Cardiac cycle & output & Heart sounds Blood pressure & its regulation Conduction mechanism Pulmonary & systematic Circulation

## UNIT VIII Lymphatic System

UNIT IX Endocrine System Hormones of pituitary, Thyroid Parathyroid Gland Hormones of adrenal gland & pancreas

## UNIT X

**Reproductive System** Spermatogenesis Menstrual cycle Puberty

## UNIT XI

Special Senses Mechanism of Vision Mechanism of Hearing Taste & smell

#### Pathology (60HOURS)

UNIT I Cell Injury and Adaptation: Necrosis: Definition. Types of necrosis. Struct Costs: Coagulative necrosis. Liquefactive necrosis Gaseous necrosis Fat necrosis

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## **DCCA103**

## UNIT II

#### Inflammation and Repair:

Inflammation: Definition Types of inflammation Vascular changes:Hemodynamic changes Changes in vascular permeability Cellular events: Margination, Adhesion, Emigration, Chemotaxis, Phagocytosis. Shortnotes: Phagocytosis,Chemotaxis and Granulomas

#### Healing and repair:

Process of healing by primary intention. Process of healing by secondary intention. Shortnotes: factors influencing wound healing.

#### **UNIT III**

#### Fluid and hemodynamic derangements:

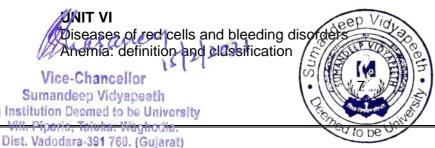
Edema: Definition Types of edema Pathogenisis of renal and cardiac edema Lymph edema

## Shock:

Definition Types of shock Pathogenesis of septic and hypovolemic shock

#### Thrombosis:

Definition Factors influencing thrombosis Fate of thrombosis **UNIT IV** Neoplasia Introduction: nomenclature, metaplasia, dysplasia, anaplasia, hyperplasia, hypertrophy Definition Differences between benign and malignant tumors Spread of tumors Shortnotes: Grosss features and clinical features of: Squamous papilloma Sgamous cell carcinoma Lipoma Fibrosarcoma. UNIT V Infectious diseases: Tuberculosis: Etiology and clinical features. Ghon complex Secondary tuberculosis Leprosy: Etiology, classification and morphology of Lepromatous and Tuberculoid leprosy Attracted of infection, clinical features and gross pathology of HIV infection



Clinical features of: a. Iron deficiency anemia b. Vit B 12 deficiency anemia c. Sickle cell anemia Coagulation disorders: classification, capillary fragility and platelet disorders. Hemoplilia(SN) thrombocytopenia including ITP(SN)

## UNIT VII

Diseases of white cell and lymphnodes Leukemia: definition, classification and clinical features Lymphoma: definition, types and clinical features

#### UNIT VIII

Nutritional diseases Vit A, B, C, D deficiency including a brief account of rickets

Microbiology (60HOURS) **DCCA103** 

## **UNIT I: General Microbiology**

- History: Louis Pasteur, Robert Koch
- Microscope: Parts, function and its types
- Morphology of bacteria: classification of microorganisms, bacteria cell, staining of
- bacteria-Gram and ZN stain.
- Physiology of bacteria: Growth and nutrition of bacteria, Growth curve
- Sterilization and disinfection: Dry heat, moist heat sterilization, filtration, Radiation,
- disinfectants use in hospital
- Culture media: simple and complex media, preparation and its use
- Culture methods: aerobic and anaerobic
- 8.Identification of bacteria: catalase test, coagulase test, oxidase test, Urease test, IMVic TESTS

#### **UNIT II: Immunology**

- Infection
- Immunity
- Antigen
- Antibody

## UNIT III: Collection, Transport And Processing Of Clinical Specimens:

- Throat swab
- Sputum
- Urine
- Pus
- Blood
- CSF

# Actes De Systemic Bacteriology

Staphylococcus aureus
Staphylococcus pyogenes
Staphylococcus pyogenes

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- Pneumococcus
- E.coli, Klebsiella and Pseudomonas

## UNIT V: Health care associated Infections: Sources, Method of transmission and Prevention

UNIT VI: Principle and Practices of Biomedical waste management:

#### **Practical: 40MARKS**

- Microscope: parts function, focus, care and handling •
- Hanging drop preparation •
- Performance of Gram's stain
- Performance of ZN stain
- Culture media preparation: Nutrient agar, Blood agar, Chocolate agar, NA slant, •
- Functioning of Autoclave and Hot air oven •
- Visit to hospital for the demonstration of Biomedical Waste Management
- Aseptic practices in laboratory and safety precaution

#### **Biochemistry-DCCA104**

## UNIT I

- **Basic Concepts of Enzymes**
- Clinical enzymology
- Carbohydrates proteins and lipids (structure and function)
- Primary metabolic pathways involving proteins, lipids and carbohydrates
- Biosynthesis Of Proteins, Membrane, Lipids And Glucose Basic Steps

#### UNIT II

Haemoglobin (Haeme Synthesis), Blood Clotting Factors

#### UNIT III

Brief Note on Vitamins

#### **UNIT IV**

Plasma Proteins and their Clinical Importance

#### UNIT V

- Clinical Biochemistry and Interpretation
- Test for liver function/gastric function •
- Test for renal function
- Lipid profile
- Glucose -- gtt, rbs, fbs
- Electrolytes
- g)

Blood

collection/anticoagulan

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## 60 HOURS

Each student shall undergo training in Skill Simulation Laboratory for learning certain basic clinical skills like IV/IM injection, setting IV line, Cardio-pulmonary resuscitation (CPR), and Life support skills in the beginning of second year, for duration of continuous four days. (Board of Studies letter No.:FPMS/SV/BOS-MIN/0006/2016-17, dated 19/04/2017, and vide notification of Board of Management resolution Ref.:No. SVDU/R/2017-18/5056, dated 09/01/2018).

## SECOND YEAR DIPLOMA IN CANCER CARE ASSISTANT

## Nursing Care of the patient with cancer DCCA201 (60HOURS)

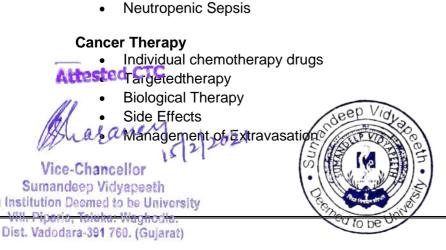
- Assessment •
- Planning
- Prioritising
- Implementing •
- Evaluating

## Treatment modalities for Site Specific Cancer DCCA202 (60HOURS)

- **Brain Cancer**
- **Breast Cancer**
- **Colorectal Cancer**
- Gastrointestinal Cancer(Upper)
- **Genitourinary Cancers** •
- Head and Neck Cancer
- Lung Cancer
- Lymphoma
- Pancreatic Cancer
- Prostate Cancer
- Skin Cancer
- **Testicular Cancer**

## **Recognition and Treatment of Oncological Emergencies DCCA203 (60HOURS)**

- SIADH
- TumourLysis
- DIC
- Hypercalcaemia of Malignancy
- Spinal Cord Compression
- SVCO
- Neutropenic Sepsis



- Chemotherapyspills
- Safe Handling
- Research Clinical Trials

## Radiotherapy

- Principles of Radiotherapy
- TreatmentPlanning
- Treatment
- Side Effects
- Management of Side Effects

## CODE OF PROFESSIONAL CONDUCT

## INTRODUCTION

The Code of Professional Conduct is designed and set out as guidance for the clinical practitioner within the relationship that exists with every patient receiving health care.

Essential to that relationship is the patient's trust in the practitioner. This trust hangs upon the patient's assurance of being the practitioner's first concern during their clinical encounter, and upon the patient's confidence that the care received will be competent, whether in diagnosis, therapy or counseling.

## STANDARD OF PRACTICE AND CARE

Patients are entitled to the highest standard of practice and care. The essential elements of this are professional competence, good relationships with patients and colleagues and observance of professional ethical obligations.

## In providing care you must therefore:

- Recognize the limits of your professional competence.
- Be willing to consult colleagues
- Keep clear, accurate and contemporaneous patient records which report the relevant findings.
- Keep colleagues informed.
- Pay due regard to the efficacy and the prudent use of resources.
- Be competent, truthful, and accurate, when reporting on investigations.

Attested Competent when giving or arranging treatment.

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- Listen to patients and respect their views.
- Treat patients politely and considerately.
- Respect patients' privacy and dignity.
- Give information to patients in a way they can understand.
- Respect the right of patients to be fully involved in decisions about their care.
- Respect the right of patients to refuse treatment or to take part in teaching or research, reporting the refusal to the person requesting the procedure.
- Respond to complaints promptly and constructively.
- Ensure that your views about a patient's life style, culture, beliefs, race, colour, sex, sexuality, age, social status, or perceived economic worth, do not prejudice the service you give.

## CONFIDENTIALITY

Patients have a right to expect that you will not pass on any personal information which you learn in the course of your professional duties, unless they agree

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