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

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CURRICULUM

Diploma
in
CANCER CARE ASSISTANT

Attested CTC

15/2/2021

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

Sumandeep Vidyapeeth • Deemed to be University •

Smt. B. K. Shah Med. Insti. & Rese. Centre
Dean

AMENDED UP TO DECEMBER -2020

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
- Demonstrate respect for each patient's individual rights of autonomy, privacy, and confidentiality

Commitment to professional excellence

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

attributes and characteristics that include technical competence, appearance, image, confidence level, empathy, compassion, understanding, patience, manners, verbal and non-verbal 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
2nd Year - Total Hours 300				
Nursing Care of the patient with cancer	DCCA201	40	60	100
Treatment modalities for Site Specific Cancer & oncology emergencies	DCCA202	40	60	100
Cancer Therapy & Radiotherapy	DCCA203	40	60	100
3rd 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 IV: Thorax and Abdomen:

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 Connection with diseases of this system, Anatomic integration,Intracortical integration.

UNIT XIV: Musculo Skeletal Anatomy

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.

Physiology (60HOURS) DCCA102

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
Digestion & Mechanism of Vomiting
Digestive Juices in upper digestive tract
Digestive juices I lower digestive tract

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 **DCCA103**
(60HOURS)

UNIT I
Cell Injury and Adaptation:
Necrosis:
Definition.
Types of necrosis.
Causes: Coagulative necrosis.
Liquefactive necrosis
Caseous necrosis
Fat necrosis
Gangrene

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
Sqamous 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
Etiology, mode of infection, clinical features and gross pathology of HIV infection

UNIT VI

Diseases of red cells and bleeding disorders
Anemia: definition and classification

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

UNIT IV: Systemic Bacteriology

- Staphylococcus aureus
- Streptococcus pyogenes

- 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 **60 HOURS**

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

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

Cancer Therapy

- Individual chemotherapy drugs
- Targetedtherapy
- Biological Therapy
- Side Effects
- Management of Extravasation

- 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.
- Be competent when giving or arranging treatment.

Patient's rights

- 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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