# 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** 

Attested CTC

Vice-Chancellor

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

EMERGENCY MEDICAL ASSISTANT

**Diploma** 

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**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 paramedical 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**

- Perform an adequate patient assessment and formulate and implement a treatment plan for patients with a variety of medical and traumatic emergencies.
- Demonstrate effective communication, cultural competency, and conflict management and intervention skills for people in crisis.
- Implement self-care strategies and techniques to address the impact of stress and emotional trauma on emergency providers.
- Demonstrate leadership, teamwork and decision making in the management of multiple personnel on emergency scenes.
- Understand and follow workplace expectations regarding attendance, safety, conduct, and professionalism.
- Describe and use defensive and safe driving techniques in the operation of emergency vehicles.
- Demonstrate safe work practices in a variety of specific rescue situations including rope, water, wilderness, and confined space rescue.

### **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

Describe and apply the basic concepts of clinical ethics to actual cases and situations

Recognize the need to make health care esources available to patients fairly, equitably and

without bias, discrimination or undue influence

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- Demonstrate an understanding and application of basic legal concepts to the practice Employ professional accountability for the initiation, maintenance and termination of patientprovider 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 3 years including 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

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# **COURSE OF INSTRUCTION**

Course Name	Course Code	Theory (In hrs.) (Class and lab)	Practical (In hrs.) (Clinical)	Total (in Hours)
First Year - Total Hours 500				
Anatomy	DEMA101	60	40	100
Physiology	DEMA102	60	40	100
Biochemistry	DEMA103	30	30	60
Hospital orientation, management, and computers	DEMA104	60	40	100
English	DEMA105	40	-	40
Emergency medicine (EM) and EMS	DEMA106	60	40	100
2 <sup>nd</sup> Year - Total Hours 300				
Pathology & Microbiology,	DEMA201	40	60	100
Pharmacology	DEMA202	40	60	100
Patient examination, nursing	DEMA203	40	60	100
3 <sup>rd</sup> year -internship	Total hours-2184			

# **SCHEME OF EXAMINATION**

First Year						
SUBJECT CODE	SUBJECTS	EXAMINATION PATTERN				
		Internal	Final	TOTAL		
DEMA101	Anatomy	20	80	100		
DEMA102	Physiology	20	80	100		
DEMA103	Biochemistry	20	80	100		
DEMA104	Pathology & Microbiology	20	80	100		
Practical- 50, Viva- 40, Journal- 10, Total marks: 100						
Second Year						
DEMA201	Nursing Care of the patient with cancer	20	80	100		
DEMA202	Treatment modalities for Site Specific Cancer& oncology emergencies	20	80	100		
DEMA203	Cancer Therapy & Radiotherapy	20	80	100		
40, Journal-10, Total marks: 100						

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# First Year

Section-1 (months: 1-3)

**English** 

### Communication:-

- Role of communication
- Defining Communication
- Classification of communication
- Purpose of communication
- Major difficulties in communication
- Barriers to communication
- Characteristics of successful communication The sevens
- Communication at the workplace
- Human needs and communication "Mind mapping"
- Information communication

# Writing business letters:-

- How to construct correctly
- Formal language
- Address
- Salutation
- Body
- Conclusion

# Report writing:-

- Reporting an accident
- Reporting what happened at a session
- Reporting what happened at a meeting

# Section-2 (months 1-3)

# **Hospitals & patients: Orientation**

# **Hospitals**

- History
- Classification
- Organization&structure
- Doorway to the hospital Emergency department
- Departments &Teams
- Paramedical Staff
- Ancillary departments
- Lab
- Pharmacy
- Imaging
- · Physic/speech
- Patient support services
- Admin/Billing
- Medical insurance
- Patient transport
- Dietary
- Social services

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- Health information management
- Medical terminology
- Medical records
- Electronic Medical Records& medico-legal issues

# Section-3 (month: 4)

# Computers

Hardware

- CPU
- I/Devices
- Memory

### Software

- Operating systems
- Applications
- Word-processing
- Presentations

#### Internet

- E-mail
- · Search engines
- Uploading/downloading files
- Cloud computing
- Educationalists

# Section-4 (month-4-5)

# Introduction to Emergency Medicine

- History of Emergency Medicine
- Understanding Emergency Medicine (the specialty, Its pros &cons)
- Training in Emergency Medicine

# **Emergency Medical Services (EMS)-history and current trends of History**

- Pre-hospital transport
- Roles &responsibilities
- Legal issues
- Moving patients
- Principles of life support

# **Anatomy (Month-7)**

# **Basic Anatomical terminology**

- The human body
- Skeleton
- Brain
- Head and neck
- Limbs

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Abdomen

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# **Physiology (Month-8-9)**

### The Cell:

- Cell Structure and functions of the various organelles.
- Endocytosis and exocytosis

### The Blood:

- Composition of Blood
- Functions of the blood and plasma proteins, classification and protein.
- Pathological and Physiological variation of thereby.
- Function of Hemoglobin
- Erythrocyte Sedimentation Rate.
- Detailed description about WBC-Total count (TC), Differential count (DC) and functions.
- Platelets formation and normal level and functions
- Blood groups and Rh factor

# **Biochemistry (Month-10)**

- Carbohydrates-Glucose and Glycogen Metabolism
- Proteins:-Classification of proteins and functions
- · Lipids:-Classification of lipids and functions
- Vitamins & Minerals:
- Fat soluble vitamins(A,D,E,K) Water soluble vitamins –B-complex
- vitamins- principal elements (Calcium, Phosphorus, Magnesium, Sodium,
- Potassium, Chlorine and sulphur)- Trace elements Calorific value of foods–
- Basal metabolic rate(BMR) respiratory quotient(RQ) Specificdynamicaction(SDA)
- Balanced diet Marasmus Kwasoirkar

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# Second Year

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).

# Pathology (Month 1-3)

### Cell

- Cellular adaptation, Cell injury &cell death.
- Overview: Cellular response to stress and noxious stimuli.
- Cellular adaptations of growth and differentiation.
- Examples of cell injury and necrosis

#### Inflammation

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

#### **Immunity disorders**

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

# Neoplasia

- Definitions
- Nomenclature
- Biology of tumor growth benign and malignant neoplasms
- Epidemiology
- Carcinogenic agents and their cellularinteractions
- Clinical features oftumors

### Microbiology (Month-4)

Morphology and physiology ofbacteria

Sterilization anddisinfection

Culture media andmethods

· Bacterial taxonomy

Parasites anddiseases

General properties of viruses

AIDS

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- Normal microbial flora of human body
- Immnophrophylaxis

### **Pharmacology (Month-4)**

- Introduction and Sources ofdrugs
- Route ofadmin
- Pharmacokinetics
- Adverse drugreactions

# Clinical medicine (Month 5-6)

Public health

- Importance of Community Medicine
- Modes of Transmission of Diseases
- Principles of Prevention & Control of Diseases
- Hospital infections, disinfection, disinfestation and sterilization
- Disposal of Hospital wastes
- Important Communicable diseases (various systems)
- Health education

# **Nursing –principles**

- Introduction to Nursing health & Health care system
- Nurse patient relationship
- Good Housekeeping/Hygiene needs
- Vital signs

### 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

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- 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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