

**MAHARASTRA UNIVERSITY OF HEALTH  
SCIENCES, NASHIK**

**SCHOOL OF MEDICAL ASSISTANTS,  
INHS ASVINI**

**COURSE CONTENTS AND SYLLABUS ON  
DIPLOMA COURSE IN**

**ADVANCE NURSING AND  
CRITICAL CARE MEDICINE**

**SEMESTERWISE**

**DIPLOMA IN ADVANACE NURSING**  
**AND CRITICAL CARE MEDICINE**

**COURSE OBJECTIVE:-**

1. **Knowledge about the history & principles of microbiology in nursing.**
  - (i) Knowledge about historical background & principles in microbiology in nursing.
  - (ii) Knowledge about organisms and diseases caused by them.
  - (iii) Knowledge about use of microscope & other laboratory techniques.
  
2. **Knowledge about the principles of Pharmacology in nursing.**
  - (i) Knowledge about history of modern drug therapy & laws regarding drugs.
  - (ii) Working knowledge about prescription of various types of drugs & abbreviations used, various routes of drug administration.
  - (iii) Knowledge about drugs acting on different systems of the body, hormones & antibiotics.
  
3. **Working knowledge and skill meet the basic needs of patients.**
  - (i) Working knowledge about principles underlying comprehensive nursing care, to provide nursing care at home & education regarding health promotion.
  - (ii) To develop skill in planning & implementing ward administration, comfortable environment to the patient, provision of logistics in wards.
  
4. **Working knowledge and skill to carryout various nursing procedures.**
  - (i) Ability & skill in bed making, personal hygiene of patient, lifting the patient and hot/ cold application.
  - (ii) To help efficiently to MO for examination of patient
  - (iii) Knowledge & skill for carrying out important nursing procedures such as catheterisation, gastric lavage, colonic lavage, irrigation of eyes, ear & wounds, IV infusion, lumber puncture, Paracentesis, Thoracentesis, gastric suction etc.
  
5. **Proficiency in providing skilful nursing care(Nursing management) to medical & surgical cases.**
  - (i) Ability to help MO in proper diagnosis of the patient.
  - (ii) Ability and skill to provide nursing care to patients with respiratory diseases.
  - (iii) Ability and skill to provide nursing care to patients with gastro intestinal diseases.
  - (iv) Knowledge in nursing care of musculo-skeletal diseases, Eye and ENT diseases, Skin diseases and Infectious diseases.

6. Proficiency to handle medical & surgical emergencies effectively.
  - (i) Working knowledge of handling of medical and surgical emergencies.
  - (ii) Knowledge about to detect the immediate care & treatment required for medical emergencies.
  - (iii) Knowledge of providing nursing care to the community during natural calamities.
  
7. Knowledge of Human behaviour & ethical principles in nursing care of the patient and necessary adjustments.
  - (i) Knowledge about understanding human behaviour, patient habits and attitude.
  - (ii) Knowledge of principles of nursing, qualities of good nurse, profession & it's responsibilities, Indian council of nursing.
  
8. Knowledge about problems of health of the community and be able to communicate & advise them on medical problems.
  
9. Working knowledge about ECG recording techniques.

**GENERAL EXAM STRUCTURE FOR DIPLOMA IN  
ADVANCE NURSING AND CRITICAL CARE MEDICINE**

S.No.	Subject	Theory	Practical	Total
<b>Year I</b>				
<b>Semester I</b>				
1.	Introduction to Advance Nursing	150	50	200
2.	Microbiology	150	50	200
3.	Pharmacology	150	50	200
4.	Ward management/administration	150	50	200
<b>Semester II</b>				
1.	Basic nursing procedures	100	100	200
2.	Important Nursing Procedures	50	150	200
3.	Nursing Management of various diseases	50	150	200
4.	ECG Recording techniques	50	150	200
<b>Semester III</b>				
1.	Nutritional Therapy	50	150	200
2.	Psychology	50	150	200
3.	Demonstration of important nursing procedures & setting of nursing units	50	150	200
4.	Medical & Surgical Nursing Management of various diseases	100	100	200
<b>Semester IV</b>				
1.	Community Nursing and community Organization	50	150	200
2.	Hospital acquired infections, prevention & Management	150	50	200
3.	Ward Management/Administration	150	50	200
4.	Project work	--	100	100
<b>Total :-</b>				<b>3100</b>

**COURSE DESCRIPTION FOR DIPLOMA IN  
ADVANCE NURSING AND CRITICAL CARE MEDICINE**

**Year I Semester-I**

**Paper I- Introduction to Advance Nursing**

- 1.1 Brief history of modern nursing
- 1.2 Ethics and principles of nursing
- 1.3 Qualities of advance nursing medical assistant
- 1.4 Art of listening and observation
- 1.5 Responsibilities of advance nursing medical assistant
- 1.6 Important points in history taking
- 1.7 Principle of recording & reporting
- 1.8 General signs & symptoms of diseases
- 1.9 Hospital etiquette

**Paper II- Microbiology**

- 2.1 Introduction to laboratory techniques
- 2.2 Use of microscope
- 2.3 Collection of samples for various laboratory examinations & preparation of smears
- 2.4 Sources & transmission of diseases
- 2.5 Sterilisation
- 2.6 Disinfection
- 2.7 Medical & surgical asepsis
- 2.8 Cross infection
- 2.9 Control of spread of infection
- 2.10 Modern trends in pest/rodent control

**Paper III- Pharmacology**

- 3.1 Introduction to pharmacology
- 3.2 Sources of drugs
- 3.3 Weights and measures
- 3.4 Prescription
- 3.5 Terms used in prescription
- 3.6 Routes of drug administration
- 3.7 Factors governing the doses of drugs
- 3.8 Adverse reaction of drugs
- 3.9 Hypersensitivity
- 3.10 Treatment of acute drug poisoning
- 3.11 Antiseptic and disinfectant
- 3.12 Antihistamines
- 3.13 Hormones
- 3.14 Antipyretic
- 3.15 Analgesics
- 3.16 Hypnotics and sedatives
- 3.17 CNS Stimulants
- 3.18 Tranquilizers
- 3.19 Anti infective drugs:
  - 3.19.1 Sulphonamides
  - 3.19.2 Antibiotics

- 3.20 Anti tubercular drugs
- 3.21 Anti malarial drugs
- 3.22 Anti malignancy drugs
- 3.23 Anti amoebic drugs
- 3.24 Anti coagulants
- 3.25 Anthelmintics
- 3.26 Anti anaemic drugs
- 3.27 Drugs acting on cardio vascular system:
  - 3.27.1 Anti arrhythmic drugs
  - 3.27.2 Anti hypertensive drugs
- 3.28 Drugs acting on digestive system:
  - 3.28.1 Antacid and carminatives
  - 3.28.2 Appetizer & digestants
  - 3.28.3 Anti emetic & anti diarrhoeal drugs
  - 3.28.4 Anti spasmodic
  - 3.28.5 Purgatives
- 3.29 Drugs acting on respiratory system:
  - 3.29.1 Expectorant & cough sedatives
  - 3.29.2 Bronchodilators
- 3.30 Diuretics
- 3.31 Dangerous & poisonous drugs

#### **Paper IV- Ward Management / Administration**

- 4.1 Hospital plans for safety of patient and staff
- 4.2 Ward management in mass casualties
- 4.3 Decontamination centers
- 4.4 Emergency nursing services
- 4.5 Fire drill
- 4.6 Material required for patient care
- 4.7 Maintenance of equipment
- 4.8 Daily ward routine
- 4.9 Methods & systems used in ward cleanliness
- 4.10 Supply system for linen, drugs, equipment
- 4.11 Purpose of record & maintenance of charts/records
- 4.12 Documentation during hospitalization
- 4.13 Maintenance & Importance of A & D Book
- 4.14 Demand & Accounting procedure of hospital diets

#### **Semester II**

#### **Paper V - Basic Nursing Procedures**

- 5.1 Domestic ward work
- 5.2 Bed making
- 5.3 Sponge bath
- 5.4 Care of mouth , hairs and nails
- 5.5 Care of bowels & bladder
- 5.5 Prevention of bed sores
- 5.6 Lifting of patients
- 5.7 Application of heat & cold
- 5.8 Care & filling of hot water bottle & ice caps
- 5.9 Preparation of patient for medical examination

- 5.10 Observation of patient for untoward reaction of treatment
- 5.11 Pre-operative nursing care
- 5.12 Post operative nursing care
- 5.13 Post operative complication of major surgery
- 5.14 Hazards of blood transfusion and its prevention

#### **Paper VI - Important Nursing Procedures**

- 6.1 Enemata
- 6.2 Catheterisation
- 6.3 Gastric lavage
- 6.4 Colonic lavage (Bowel wash)
- 6.5 Irrigation of eyes, ears & wounds
- 6.6 Continuous gastric suction
- 6.7 Water seal drainage
- 6.8 Surgical dressings
- 6.9 Lumbar puncture
- 6.10 Paracentesis
- 6.11 Thoracentesis
- 6.12 Administration of drugs by various routes
- 6.13 Intravenous infusions
- 6.14 Venesection
- 6.15 Sub-cutaneous infusion
- 6.16 Tracheostomy
- 6.17 Plaster of Paris techniques

#### **Paper VII - Nursing Management of Various Diseases**

- 7.1 Disorders of upper respiratory tract
  - 7.1.1 Disorders of lungs and pleura
  - 7.1.2 Asthma
  - 7.1.3 Pneumonia
  - 7.1.4 Pleurisy
  - 7.1.5 Empyema and emphysema
  - 7.1.6 Bronchiectasis
  - 7.1.7 Pulmonary tuberculosis
  - 7.1.8 Bronchitis
  - 7.1.9 Smoking and its hazards
  - 7.1.10 Lung Cancer
- 7.2 Nursing management of GI system
  - 7.2.1 Stomatitis and gingivitis
  - 7.2.2 Parotitis
  - 7.2.3 Obstruction of oesophagus
  - 7.2.4 Gastritis and enteritis
  - 7.2.5 Peptic ulcer
  - 7.2.6 Colitis
  - 7.2.7 Intestinal obstruction
  - 7.2.8 Appendicitis
  - 7.2.9 Hernia

- 7.2.10 Fissure/ Fistula and haemorrhoids
- 7.2.11 Hepatitis
- 7.2.12 Cirrhosis of liver
- 7.2.13 Cholecystitis
- 7.2.14 Stone in gall bladder and bile duct
- 7.3 Nursing management of diseases of musculoskeletal system
  - 7.3.1 Sprains and dislocations
  - 7.3.2 Fractures
  - 7.3.3 Arthritis
  - 7.3.4 Osteomyelitis
  - 7.3.5 Nursing care of patient after amputation
  - 7.3.6 Nursing care of patient with prosthesis
- 7.4 Nursing management of cardiovascular diseases
  - 7.4.1 Nursing management of shock
  - 7.4.2 Cardiac arrhythmias
  - 7.4.3 Cardiac arrest
  - 7.4.4 Heart block
  - 7.4.5 Pericarditis, endocarditis and myocarditis
  - 7.4.6 Valvular heart diseases
  - 7.4.7 Myocardial infarction and angina pectoris
  - 7.4.8 Congestive cardiac failure
  - 7.4.9 Hypertension
  - 7.4.10 Thrombosis & Thrombophlebitis
  - 7.4.11 Embolism & Aneurysm
  - 7.4.12 Varicose veins
  - 7.4.13 Anaemia's
  - 7.4.14 Leukaemia
  - 7.4.15 Agranulocytosis
  - 7.4.16 Rheumatic fever
  - 7.4.17 Hodgkin's diseases
  - 7.4.18 Other neoplasm
  - 7.4.19 Congenital defects
- 7.5 Nursing management of Genito urinary system
  - 7.5.1 Disorders of micturition
  - 7.5.2 Cystitis
  - 7.5.3 Pyelitis & Nephritis
  - 7.5.4 Nephrosis
  - 7.5.5 Tuberculosis of genito-urinary system
  - 7.5.6 Diseases of testis and adjacent structures
  - 7.5.7 Prostatic hypertrophy

#### **Paper VIII - ECG recording techniques**

- 8.1 Description of ECG apparatus and its component parts
- 8.2 Various leads in ECG
- 8.3 Working principles of ECG machine and usefulness of ECG
- 8.4 Recording of ECG (on job training)
- 8.5 Technical difficulties affecting the recording of ECG
- 8.6 Record keeping of ECG

**Year-II**  
**Semester- III**

**Paper IX - Nutritional Therapy**

- 9.1 Introduction to diet therapy
- 9.2 Diet as therapeutic agent
- 9.3 Modification of diet in relation to caloric value
- 9.4 Therapeutic cooking and effects of cooking
- 9.5 Factors involved in accepting diet by the patient
- 9.6 Hospital diets
- 9.7 Special diets in relation to diseases

**Paper X- Psychology**

- 10.1 Dynamics of human behaviour
- 10.2 Motivation
- 10.3 Kinds of needs and urges
- 10.4 Unconscious motives and mental mechanisms
- 10.5 Methods of acquiring and breaking of habits
- 10.6 Observations
- 10.7 Improvement in accuracy of observation
- 10.8 Process and errors of perception
- 10.9 Inter-personal relationship amongst member of group
- 10.10 Psychological approach to bed side manners

**Paper XI - Demonstration of important nursing procedures & setting of nursing units**

- 11.1 Positioning of patient in various diseases
- 11.2 Techniques of major dressing
- 11.3 Removal of suture and clips
- 11.4 Liver Biopsy
- 11.5 Sterum Puncture
- 11.6 Angio cardio gram
- 11.7 Setting up of units
  - 11.7.1 Post operative units
  - 11.7.2 Cardiac Unit
  - 11.7.3 Burn Units
  - 11.7.4 Barrier Nursing/Isolation Unit

**Paper XII - Medical & Surgical Nursing Management of various diseases**

- 12.1 Nursing management of diseases of nervous system
  - 12.1.1 Headache and migraine
  - 12.1.2 Coma
  - 12.1.3 Fits and epilepsy
  - 12.1.4 Neuritis and neuralgia
  - 12.1.5 Scitica

- 12.1.6 Paraplegia, hemiplegia & monoplegia
- 12.1.7 Multiple sclerosis
- 12.1.8 Myasthenia gravis
- 12.1.9 Cerebral embolism, thrombosis and haemorrhage
- 12.1.10 Meningitis and encephalitis
- 12.1.11 Abscess, tumours and other brain injuries
- 12.1.12 Heat Stroke
- 12.1.13 Heat exhaustion
- 12.1.14 Hydrophobia
- 12.1.15 Spinal injuries
- 12.2 Nursing management of diseases of endocrine system
  - 12.2.1 Diseases of thyroid and parathyroid glands
  - 12.2.2 Diseases of adrenal gland
  - 12.2.3 Diseases of Pituitary glands
  - 12.2.4 Diabetes mellitus
  - 12.2.5 Obesity
- 12.3 Nursing management of skin diseases
  - 12.3.1 Grouping of various skin diseases
  - 12.3.2 Allergy
  - 12.3.3 Congenital lesions
  - 12.3.4 Eczema
  - 12.3.5 Psoriasis and tumours of skin
  - 12.3.6 Other disorders of skin
  - 12.3.7 Burns and scalds
- 12.4 Nursing management of eye diseases
  - 12.4.1 Styne and blephritis
  - 12.4.2 Conjunctivitis and corneal ulcer
  - 12.4.3 Glaucoma
  - 12.4.4 Cataract
  - 12.4.5 Blindness, causes and prevention of blindness
- 12.5 Nursing management of diseases of ear, nose & throat
  - 12.5.1 CSOM and other diseases of ear
  - 12.5.2 Deafness
  - 12.5.3 Diseases of Nose(Rhinitis and DNS)
  - 12.5.4 Diseases of Throat (Tonsillitis, laryngitis and Pharyngitis)
- 12.6 Nursing management of communicable diseases
  - 12.6.1 Introduction to Communicable Disease
  - 12.6.2 Chicken Pox
  - 12.6.3 Measles
  - 12.6.4 Influenza
  - 12.6.5 Swine flue
  - 12.6.6 Avian flue
  - 12.6.7 Mumps
  - 12.6.8 Infectious Hepatitis
  - 12.6.9 Poliomyelitis
  - 12.6.10 Diphtheria
  - 12.6.11 Whooping Cough
  - 12.6.12 Tetanus
  - 12.6.13 Leprosy
  - 12.6.14 Typhoid

- 12.6.15 Dengue
- 12.6.16 Gastroenteritis
- 12.6.17 Cholera
- 12.6.18 Malaria
- 12.6.19 Filaria
- 12.6.20 Ankylostomiasis
- 12.6.21 Ascariasis
- 12.6.22 Guinea worms and tape worms
- 12.6.23 Chickungunya fever
- 12.7 Nursing management of sexually transmitted diseases
- 12.7.1 Gonorrhoea
- 12.7.2 Syphilis
- 12.7.3 Acquired Immuno-deficiency Syndrome (AIDS)
- 12.7.4 Other Sexually transmitted diseases (LGI & LGV)
- 12.8 Nursing management of medical emergencies
- 12.8.1 Smoking and its hazards
- 12.8.2 Lung Cancer
- 12.8.3 Acute abdomen
- 12.8.4 Cancer
- 12.8.5 CPR
- 12.8.6 Anaphylactic shock
- 12.8.7 Snake bite
- 12.8.8 Drowning
- 12.8.9 Burns
- 12.8.10 Poisoning

### **Paper XIII- Community Nursing and community organisation**

- 13.1 Urban and rural health services
- 13.2 Roll of Social worker in health promotion
- 13.3 Primary health centres & their function
- 13.4 Health education
- 13.5 Maternal and child health centres
- 13.6 Chest clinics and dispensaries
- 13.7 Health services for school children
- 13.8 National health programme
- 13.9 Health & social services in India
- 13.10 Calculation of vital statistics and its purpose
- 13.11 Administration at national and municipal level
- 13.12 Health problem related to
  - 13.12.1 Population
  - 13.12.2 Food supply
  - 13.12.3 Sanitation
  - 13.12.4 Communicable Diseases
- 13.13 Family planning programmes
- 13.14 World health organisation & co-lateral agencies

### **Semester- III**

#### **Paper XIV - Hospital acquired infections, prevention & management**

- 14.1 Immunity
- 14.2 Immunisation
- 14.3 Patient scales of accomodation,light & ventilation
- 14.4 Disinfection
- 14.5 Sterilisation
- 14.6 Introduction to infection, mode of transmission and clinical features in infection
- 14.7 Cross infections
- 14.8 Surgical infections
- 14.9 Prevention of hospital infections
- 14.10 Hazards of blood transfusion, their prevention and management

#### **Paper XV- Ward Management/Administration**

- 15.1 Categories of personnel for ward management
- 15.2 Ward design and nursing units
- 15.3 Daily ward routine
- 15.4 Hospital standing orders
- 15.5 Legal aspects of patient care
  - 15.5.1 Admission and discharge of patient
  - 15.5.2 Transfer out of patient
  - 15.5.3 Occurrence & follow up of SIL & DIL cases
  - 15.5.4 Importance of consent
  - 15.5.5 Behaviour and relation of ward staff with relatives and visitor's
  - 15.5.6 Importance of religion in recovery of patient
  - 15.5.7 Personal belongings and valuables
- 15.6 Action on desertion/abcentia of patients
- 15.7 Crisis management
- 15.8 Returns from ward & documentations in the ward
- 15.9 Demanding & accounting of hospital diet & extras
- 15.10 Laundry services for hospital linen
- 15.11 Amenity stores for patients
- 15.12 Preparation of fatal documents and action after death of patient
- 15.13 Fire fighting organisation of ward, hospital, Naval and civil authorities

#### **Paper XVI- Project work**

- 16.1 Categories of personnel for ward management
- 16.2 Ward design and nursing units
- 16.3 Daily ward routine
- 16.4 Hospital standing orders
- 16.5 Legal aspects of patient care
- 16.6 Admission and discharge of patient
- 16.7 Transfer out of patient

- 16.8 Occurrence & follow up of SIL & DIL cases
- 16.9 Behaviour and relation of ward staff with relatives and visitor's
- 16.10 Crisis management
- 16.11 Returns from ward & documentations in the ward
- 16.12 Demanding & accounting of hospital diet & extras
- 16.13 Amenity stores for patients
- 16.14 Preparation of fatal documents and action after death of patient
- 16.15 Fire fighting organisation of ward, hospital, Naval and civil authorities