

OPJS UNIVERSITY, CHURU (RAJASTHAN)



SYLLABUS

FOR

DIPLOMA IN OPERATION THEATER

(DOT)

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SCHOOL OF PARA MEDICAL SCIENCE
OPJS UNIVERSITY, CHURU (RAJASTHAN)
2013-14

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DIPLOMA IN OPERATION THEATER

SYLLABUS

Duration of course – 2 year (4 Semester)

SEMESTER –I

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1.	DOT-11	ANATOMY	70+30+50
2.	DOT-12	PHYSIOLOGY	70+30+50
3.	DOT-13	INTRODUCTION OF OPERATIVE ROOM	70+30+50

SEMESTER –II

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1.	DOT-21	MICROBIOLOGY	70+30+50
2.	DOT-22	CSSD PROCEDURE	70+30+50

SEMESTER –III

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1.	DOT-31	OT MANAGEMENT	70+30+50
2.	DOT-32	ANAESTHESIA MANAGEMENT	70+30+50

SEMESTER –IV

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1.	DOT-41	PHARMACOLOGY	70+30+50
2.	DOT-42	SURGICAL INSTRUMENT	70+30+50
3.	DOT-43	NURSING CARE & FIRST AID	70+30+50

Details of Syllabus

SEMESTER –I

ANATOMY

INTRODUCTION OF ANATOMY

LANGUAGE OF ANATOMY

VARIOUS OF ANATOMY

- Supine Position , prone position, lithotomy position , varies type of plan, various terms used to various region, terms to describe muscles

BONES IN SKELETON

MUSCLES

- Skeletal muscles
(striated, non striated & cardiac muscle)

SMOOTH MUSCLES

NERVOUS SYSTEM

- (central nervous system, peripheral nervous system)

SKIN AND FASCIAE

- Appendages of skin, layer's of skin

SURFACE MARKING OF VARIOUS BODY PART

VARIOUS ANATOMICAL INSISIOS

UPPER LIMB ANATOMY

- (bone , muscles, vasculature)

ANATOMY THORAX

- (heart & lung, trachea , diaphragm and respiratory muscle)

HEAD , NECK & BRAIN

- Anatomy of skull, neck muscle & Parts of brain .

ABDOMEN

- (quadrants of abdomen, stomach , liver, spleen & Intestine.)

LOWER LIMB ANATOMY

- (bone , muscles, vasculature)

TECHNIQUE & APPROCHER TO HUMEN DISSECTION

PHYSIOLOGY

RESPIRATORY SYSTEM:-

Physiology of breathing , gaseous exchange, respiration, transport of respiratory gases, Lungs volume & capacities, Pulmonary function test.

CARDIOVASCULAR SYSTEM:-

Blood pressure and physiology of heart, cardiac cycle cardiac output , ECG.

DIAGESTIVE SYSTEM:-

Digestive enzyme & gland, digestion of carbohydrate, protein & fat , vitamin

CIRCULATORY SYSTEM:-

RBC, WBC, Platelets, blood components, plasma, blood composition & content collected from various site.

ENDOCRINE SYSTEM:-

Different hormone, their site of production, mech. of action function deficiency syndrome

EXCRETORY SYSTEM:-

Excretory function by kidney, liver, formation of urine

REPRODUCTIVE SYSTEM:-

Male & female genital system , function of ovary, function of testis & hormone testosterone, progesterone Estrogen hormone menstruation cycle & fertilization.

SKIN:-

Layers of skin, function of skin

CENTRAL NERVOUS SYSTEM:-

CSF, Function of Brain, special senses smell, taste, touch, hearing.

INTRODUCTION OF OPERATIVE ROOM

OPERATIVE ROOM TECHNIQUE

Operative room - Physical setup, preparation of anaesthetic table, setting up of sterile trolley, scrubbing , gloving.

Special positioning of operative table -

- Kidney position
- Lithotomy position
- Gall bladder position
- Trendelenburg position
- Position for operation in the
 - a) Neck , Bronchoscopy and Oesophagus copy
 - b) Breast & axilla
- Jack knife position
- Supine , prone, side lying sitting other position.

SEMESTER –II

MICROBIOLOGY

INTRODUCTION OF MICROBIOLOGY

- Defination , type of micro Organism , virus Bacteria , fungi

MORPHOLOGY OF BACTERIA

- Morphology of bacteria , structure and growth of bacteria , classification of bacteria, nutrition of bacteria.

STAINING OF BACTERIA

- Gram stain, I-n Stain , negative stain , Albert stain, spore stain , composition & preparation of staining, reagents and their composition .

GRAM NEGATIVE COCCI

- Gonococci & meningococcal .

GRAM POSITIVE COCCI

- Streptococci, staphylococci, Pneumococci.

GRAM BACILLI

- Salmonella, pseudomonas, shigella, klebsiella, haenophilus E-coli other gram bacilli .

GRAM POSITIVE BACILLI

- Anaerobic bacilli – clostridia
- Aerobic – mycobacterium tuberculosis and mycobacterium leprae and corynebacterium diphtheria

CSSD PROCEDURE

CSSD Procedures

1. Waste disposal collection of used items from user area, reception protective clothing and disinfections sage gaurds,
2. use of disinfectionts sorting and classification of equipment for cleaning purposes, sharps, blunt lighted etc. contaminated high risk baby care - delicate instruments or hot care instruments,
3. cleaning process - use of detergents. Mechanical cleaning apparatus, cleaning instruments, cleaning jars, receivers bowls etc. trays, basins and similar hand ware utensils. Cleaning of catheters and tubings, cleaning glass ware, cleaning syringes and needles.
4. Materials used for wrapping and packing assembling pack contents. Types of packs prepared. Inclusion of trays and galliparts in packs. Method of wrapping and making use of indications to show that a pack of container has been through a sterilization process date stamping.
5. General observations principles of sterilization. Moist heat sterilization. Dry heat sterilization. EO gas sterilization. H2O2 gas plasma vapo sterilization.

SEMESTER –III

OT MANGEMENT

ROLE OF THE O.T. TECHNICIAN

- Responsibilities of the scrubbed nurse care of O.T. Room Pre medicine Room, Recovery Room.

PREVENTION OF CONTAMINATION IN OPERATION

- General setup of instrument – Ligatures, Abscess incision , amputations, Operation on the breast , Appendectomy bone grafting, Bronchoscopy, Circumcision, cleft palate repair gastrectomy .
- Famication of OT.
- Maintain of temperature.

ANAESTHESIA AND MANGEMENT

INTRODUCTION

OXYGEN THERAPY – Physiology of oxygen, oxygen and CO² Transport to the tissue methods of oxygen administration

Acid base balance, buffer, - interpretation and management , acid base homeostasis, buffer system, homeostasis buffer, fluid balance , fluid management.

Monitor in Anesthesia – pulse, ABP (Arterial Blood Pressure) blood flow detectors, E.C.G .temperature monitoring, heart rate, drugs interaction, advance drug reaction. **Risk of anesthesia in cardiac patient-** Hypertension, myocardial, cardiac failure

Anesthesia management – Role of anesthesia in management the ICU, casualty, psychological problems in ICU hazards of treatment in ICU.

SEMESTER – IV

PHARMACOLOGY

PHARMACOLOGY

Pharmacology is scientific study of drugs in human beings. A drug is defined usually as a substance or a mixture of substance used in diagnosis, cure, treatment or prevention of disease. **Drug:-** source of drugs, distribution of drugs, Drugs metabolism, Drug and Anesthesia (before operation), Drugs use for producing pain relief,(Analgesia) and unconsciousness and maintain of Anesthesia, Drugs route (IM,IV) Drugs administrated by inhalation route Non depolarizing Muscles Relaxant Drug , (pharmacological Actions , preparation and Dose)

Local anesthetics Drugs: Methods of Administration

Anesthesia Introduction - Gen Anesthesia , Inhalation Anesthetic , Technique of induction and ventilation with beg or mask, Laryngoscope , Endotrachial intubations, Lateral and sitting position of the patient for spinal /epidural anesthesia spinal tray , Epidural tray, facility for oxygenation a good overhead lighting system .

SURGICAL INSTRUMENT

SURGICAL INSTRUMENT

INSTRUMENTS AND EQUIPMENTS USES FOUR ANAESTHESIA

- a) Anesthesia machine-Bowel's machine, gas cylinder , flow meters, vaporizers.
- b) Breathing circuits and attachments-Schimmel Busch mask ,Magill's breathing attachments , closed or Rebreathing system , reservoir Bag Breathing tube(Face mask, harness, Endotrachial tubes & connectors, catheter mounts,
- c) Instrument aiding anesthesia- Laryngoscope, Macintosh spray, Ambulance bag, medical suction Apparatus , Oropharyngeal airway .

OPERATIVE CARE & FIRST AID

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Basic principal and concept of Nursing -Hygienic needs and importance care of skin, mouth teeth and dentures, nose, eye and hair.

Function, Dietary sources and daily requirement- protein, fats, carbohydrate, cellulose, calorie, minerals, vitamin.

Feeding care in the ICU-

First AID - Aims of the first aid, ambulance service

Burns and Scalds Management of burns, accidents , first aid drawing in server external bleeding, first aid in foreign body.

BANDAGES - Type of bandages.

SPECIAL TERMS - Dialysis, head injury, infection control in the intensive care unit , shock, chest physiotherapy, aids and the health care personnel.

METHODS OF STERILIZATION - Physical and chemical method.
