

OPJS UNIVERSITY, CHURU (RAJASTHAN)



SYLLABUS

FOR

DIPLOMA IN EMERGENCY & TRAUMA CARE

(DETC)

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

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SCHEME OF EXAMINATION
Duration of course – 2 year (4 semesters)

SEMESTER-I

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1	DETC-11	GENERAL ANATOMY & PHYSIOLOGY	70+30+50 = 150
2	DETC-12	APPLIED ANATOMY & PHYSIOLOGY	70+30+50 = 150

SEMESTER-II

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1	DETC-21	PHARMACOLOGY	70+30+50 = 150
2	DETC-22	PATHOLOGY & MICROBIOLOGY	70+30+50 = 150

SEMESTER-III

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1	DETC-31	BASIC OF CRITICAL CARE SERVICES	70+30+50 = 150
2	DETC-32	CLINICAL MEDICINE	70+30+50 = 150

SEMESTER-IV

S.No.	PAPER CODE	NAME OF PAPER	M.M.(T-S-P)
1	DETC-41	TRIAGE - TECHNOLOGY	70+30+50=150
2	DETC-42	EQUIPMENT IN EMERGENCY	70+30+50=150

Details of Syllabus

SEMESTER-I

GENERAL ANATOMY & PHYSIOLOGY

- Head , Neck & Brain
- Upper limb anatomy
- Visral organ of abdomen
- Lower limb anatomy
- Thorax:-
Anatomy of upper respiratory tract (nose, oral cavity, pharynx , larynx).
Anatomy of lower respiratory tract (trachea, bronchi , hilum , bronchial tree, alveolus).Anatomy of thoracic cage (bone , muscle, innervations.
Anatomy of lung (pleura, lobes).
- **Cardiac Anatomy:-**
Pericardium , myocardium, endocardium, valves, chamber vascular system.
- **Respiratory physiology:-**
Physiology of breathing, Respiratory gas exchange, transport of O₂, CO₂.
Acid base balance.
- **Cardio vascular physiology:-**
Heart sound, cardiac cycle , cardiac output, cardiac conducting system , blood pressure.Physiology of E.C.G..

APPLIED ANATOMY & PHYSIOLOGY

- **Respiratory system:-**
Medical terminology , pleura, lobes of long, bronchopulmonary tree, passage to deliver artificial respiratory gases, Surface marking of lungs, approach to different lobes, method of pulmonary drain , nebulization process, homeostasis, lung volume, O₂ transport abnormality ,CO₂ transport abnormalities, ventilation and perfusion V/Q ratio, acid base balance , pulmonary function test, ABG.
- **Regional circulation:-**
Coronary, cerebral, splanchnic regulation of rate, basic arrhythmias, Principles of ECG, Hypertension, mean pulse pressure , central line , central veions pressure ,CVP monitoring , Basic electrolytes

- **CNS :-**
Central , peripheral and autonomic nervous system, pain pathway and pain modulation,
Metabolic requirement of the brain ,consciousness, coma, brain injury, sedation ,

SEMESTER-II

PHARMACOLOGY

GENERAL PHARMACOLOGY –

Defination , pharmacokinetics & pharmacodynamics, Adverse drug effects.

RESPIRATORY SYSTEM DRUG –

Drugs use for cough & bronehial asthma.

Drugs used for nebulization.

DRUG ACTING ON CENTRAL NERVOUS SYSTEM –

General anaesthesia , sedative- Hypnotics, drugs.

DRUG ACTING ON KIDNEY –

Diuretics & Anti diuretics drugs

DRUGS AFFECTING BLOOD FORMATION –

anticoagulants, antithrombotic & antiplatelet drugs.

CARDIOVASCULAR DRUG –

Cardiac glycosides and drug for CHF, Antiarrhythmic drug, antianginal & anti ischemic drugs, antihypertensive drugs.

ESSENTIAL DRUG & DRUG USED IN EMERGENCY –

Cardiac glycosides and drug for CHF, Antiarrhythmic drug, antianginal & antiischemic drug, antihypertensive drugs.

EMERGENCY DRUGS

- Adrenaline : Mode or administration, dilution, dosage,
- Isoprenaline
- Atropine, bicarbonate, calcium, ephedrine, xylocard,
- Ionotropes : dopamine, dobutamine, amidaron
- Aminophylline, hydrocortisone, antihistamlncs, potassium.

- Cardiovascular drugs
- Antihypertensives
- Antiarrhythmics
- Beta - Blockers
- Ca - Channel blockers.
- Vasodilators - nitroglycerin & sodium nitroprusside
- Respiratory system - Bronchodilators, respiratory stimulants
Bronchiolytic agents
- Renal system - Diuretics, furosemide, mannitol

SEMESTER-III

BASIC OF CRITICAL CARE SERVICES

- Introduction
- Cardiopulmonary resuscitation- basic & advanced
- Advanced cardiac life support
- Oxygen therapy
- Aerosol therapy
- Mechanical ventilation
- Patient para monitoring
- Complication in ICU care
- Nutrition for critically ill patients
- ICU infection
- Ethics & behavior in ICU

CLINICAL MEDICINE

PUBLIC HEALTH

- Introduction of community medicine
- Transmission of disease
- Preventive of Disease
- Principle of prevention of control & disease
- Hospital infection and & control of infection Disease

- Hospital waste management
- Communicable disease
- Health education & promotion
- Accident as non communicable disease

PATIENT CARE

- History taking
- Physical examination
- The unconscious patient
- Diagnosis of emergency
- Diagnosis to brain death
- Case presentation

MEDICAL CARE

- Introduction of medical care & health care system
- Hospital staff patient relationship
- hemodynamics
- First aid & emergency care

CHAIN OF SURVIVAL IN EMERGENCY

EMERGENCY MEDICAL SUPPORT & LIFE SAVING DRUGS

SEMESTER-IV

TRIAGE -TECHNOLOGY

TRIAGE AND GENERAL EMERGENCIES

- Hospital infection
- Shock, dehydration
- Hypoglycemia & hyperglycemia
- Anaphylaxis
- Extremity trauma
- Head trauma
- General traumatic condition
- Spine injury
- Chest injury
- Abdomen trauma
- Bleeding condition
- Oxygen Therapy

- IV fluid
- Sodium bicarbonate
- rehydration Therapy
- Administration of
- Administration of Adrenalin
- Administration of atropine
- Administration of antifailure
- Blood transfusion
- BCLS(basic cardiac life Support)
- ACLS (Advance cardiac life Support)

EQUIPMENT IN EMARGENCY

- BP operatus
- Pulse Oximeter
- Thermometer
- Personal Protective equipment
- MPM monitor
- ABG Analyzer
- Syringe pump
- Infusion pump
- maintenance therapy
- Glucometer
- Defibrillator
- Suction aperture
- Airway
- Trolley
- Crash chart & their application
- Cervical color
- Spine board/ scoop
- Stretcher
- Pelvic binder.
