

# UP STATE PARAMEDICAL FACULTY



## **DIPLOMA IN CATH-LAB-TECHNICIAN --132**

### **SYLLABUS**

#### **Preliminary Course**

##### **ANATOMY:**

Sl.No. Particulars

01 Basic cells and tissues

02 Heart: Pericardium, chambers, valves, conduction systems great vessels

03 Circulation : major arteries and veins

04 Lungs and pleura, diaphragm

05 Liver, Spleen, Kidney, Brain

##### **PHYSIOLOGY:**

01 Circulatory systems

02 Autonomic nervous system

03 Action potential, muscles contraction

04 Gas exchange

05 Thrombosis, platelet function

06 Renin angiotensin system

07 Kidney : Physiology

##### **PHARMACOLOGY:**

01 General Pharmacology

02 Sedatives

03 Anaesthetics agents

04 Analgesics

05 Drugs used for heart disease: Antianginal, Antiarrhythmic, anti failure, vassopressors, vasodilators, cardiac imaging agents, anti thrombotics

##### **PREVENTIVE CARDIOLOGY:**

01 Diet and Nutrition

02 Smoking

03 Exercise and heart

##### **MICROBIOLOGY:**

01 Specimen collection : Blood, urine, sputum, etc.

02 Bacteria and viruses in CVS

03 Serology and immunology

### **SYLLABUS Final year Course**

##### **RADIOLOGY:**

Sl.No. Particulars

01 Principles of X-Rays

02 Protection from radiation

03 Description and recognition of Chest X-Rays  
 04 Different views of chest for identification of cardiopulmonary structures

05 Ultrasonography : Principles

06 Basic of Echocardiography

**ECG:**

01 ECG machine : Parts

02 Technical of taking an ECG

03 Pitfalls in taking ECGs

04 Recognition of normal ECG waves

05 Abnormal ECG

**DEFIBRILLATION:**

01 Technique

02 Indication

03 Complications

**DISEASES OF HEART:**

01 Congenital

02 Rheumatic

03 Myocardial and pericardial

04 Coronary artery diseases

05 Hypertension

06 Pulmonary thromboembolism and pulmonary hypertension

07 Respiratory failure

**CATHETERS AND INSTRUMENTS:**

01 Arterial Blood Gases : Technique and interpretation

02 Haemodynamic monitoring: Technique, recognition, indication, complications.

03 Fluid and electrolytes

04 X-ray imaging in cath lab

05 Intra Aortic Ballon Pulsation: Indication, Technique and complications

06 Artificial ventilation

07 Extra Corporeal Membrane Oxygenator

08 Different views of cardiac catheterization

09 Transducer, outline of C-arm, cineangio machine and oxymetry

10 Interventional catheters, balloon and stents.

*First year- Paper*

paper	subject	marks		Duration
Paper-I	<b>ANATOMY &amp; PHYSIOLOGY</b>	75	100	3hrs
	<b>Internal Assessment</b>	25		
Paper-II	<b>PHARMACOLOGY, PREVENTIVE CARDIOLOGY, MICROBIOLOGY</b>	75	100	3hrs
	<b>Internal Assessment</b>	25		
practical		100		3hrs
<b>Second year- Paper</b>				

Paper-I	<b>RADIOLOGY, ECG, DEFIBRILLATION</b>	75	100	3hrs
	<b>Internal Assessment</b>	25		
Paper-II	<b>DISEASES OF HEART, CATHETERS AND INSTRUMENTS</b>			3hrs
	<b>Internal Assessment</b>			
Practical			100	3hrs

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