SYLLABUS OF DIPLOMA IN CATH LAB. TECHNOLOGY 1ST YEAR

Anatomy

1. Basic cells and tissues
2. Heart: pericardium, chambers. Values, conduction system great vessels .
3. Circulation: major arteries and veins
4. Lungs and pleura, diaphragm
5. Liver, spleen, kidney, brain

Physiology

1. Circulatory system
2. Autonomic nervous system
3. Action potential muscles contraction
4. Gas exchange
5. Thrombosis, platelet, function
6. Rennin , angiotensin system
7. Kidney: physiology

PHARMACOLOGY

1. General Pharmacology
2. Sedatives
3. Anesthetics agents
4. Analysis
5. Drugs used for heart diseases: antianginal, ant arrhythmic, anti, failure vessopressor, vasodilators, cardiac imaging, and agents anti therombotios.

Preventive cardiology

1. Diet and nutrition
2. Smoking
3. Exercise and heart

Microbiology

1. Specimen collection: blood urine sputum etc.
2. Bactria and viruses in CVS
3. Serology and immunology

DIPLOMA IN CATH LAB. TECHNOLOGY 2nd YEAR

Radiology

1. Principles of x-ray
2. Protection form radiation
3. Description and recognition of cheats x-rays
4. Different views of chest for identification of cardiopulmonary structure.
5. Ultrasonography: principles
6. Basic of echocardiography

ECG

1. ECG machine: parts
2. Technical of taking an ECG
3. Pitfalls in taking ECGs
4. Recognition of normal ECG waves
5. Abnormal ECG

Defibrillation

1. Technique
2. Indication
3. Complications

Diseases of heart

1. Congenital
2. Rheumatic
3. Myocardial and pericardial
4. Coronary artery diseases
5. Hypertension

6. Pulmonary thromboembolism and pulmonary hypertension
7. Respiratory failure

Catheters and instruments

1. Arterial blood cases: techniques & interpretation
2. Hemodynamic monitoring technique, recognition, indication, complications
3. Fluid and electrolysis
4. X-ray –imaging in lab
5. Intra aortic balloon pulsation: indication, technique and complications
6. Artifician ventilation
7. Extra corporeal membrane oxygenator
8. Afferent views of cordiac catheterization
9. F-transducer outline of c-arm cineangio machine oxymetry