

(156-SCI-14-02) B.SC HEALTHCARE SCIENCE (CARDIAC PHYSIOLOGY)

Significance of Program

Cardiac Physiology is a challenging but rewarding field that focuses on the detection and assessment of heart disease in a wide range of settings. They carry out cardiac tests, such as echocardiograms, ECGs, Holter monitors (24-hour ECG), blood pressure measurement, and tilt-table tests. They may also work in the catheter lab assisting with angiogram and angioplasty procedures, or pacemaker/ ICD implantation.

Career Options

Perform and report on cardiac tests, such as electrocardiograms (ECG), 24 hours Holters, blood pressure monitors, stress tests (ETT), tilt-table tests, pacemaker/ ICD checks and echocardiograms

Program Objectives

- Understand basic cardiac physiology.
- Describe the effect of common anesthetics on the normal and diseased heart.
- Devise an anesthetic plan based on disease-specific hemodynamic goals.

Outcomes of the Program

Describe the path of blood through the cardiac circuits. Describe the size, shape, and location of the heart. Compare cardiac muscle to skeletal and smooth muscle. Explain the cardiac conduction system

Major Course Outline

- Direct Observation of Practical Skills
- Case-Based Discussion
- Mini-Clinical examination
- Sinus bradycardia/tachycardia
- Atrial fibrillation/flutter/ectopics
- Atrial enlargement
- Ventricular hypertrophy syndrome
- Myocardial ischaemia and infarction

Core	Electives	Skill Course
Strong Knowledge of Human Anatomy and Physiology Analytical and Critical Thinking Attention to Detail Manual Dexterity Professionalism and Ethical Conduct	Advanced Physiology and Bioengineering: Bionic Human Clinical Physiology Stress Physiology The physiology, biochemistry, biophysics, and pathobiology of muscle	dance