NPR
College of Allied Health Science
Approved by Govt. of Tamil Nadu, Affiliated to The Tamil Nadu Dr. M. G. R. Medical University, Chennai.
Natham, Dindigul (Dist.) - 624 401, Tamil Nadu.| web: www.nprahs.edu.in

ACADEMIC CURRICULUM

B.SC. CARDIAC TECHNOLOGY

PROGRAM OVERVIEW

The **B.Sc. Cardiac Technology** program is a specialized Allied Health Science course designed to train students in diagnosing and assisting in the treatment of cardiovascular diseases. The curriculum combines **basic medical sciences, advanced cardiac diagnostics, and clinical training** to produce skilled cardiac technologists.

- **Duration:** 4 Years (3 Years Academic + 1 Year Internship)
- **Eligibility:** 10+2 with Physics, Chemistry & Biology
- **Affiliation:** As per University Regulations

PROGRAM OBJECTIVES

- To develop expertise in cardiac diagnostic procedures
- To train students in ECG, Echocardiography, and cardiac catheterization
- To ensure knowledge in cardiovascular diseases and patient care
- To prepare students for emergency cardiac support and ICU settings
- To promote ethical and professional healthcare practices

CURRICULUM STRUCTURE (YEAR-WISE)

First Year – Basic Medical Sciences

- Basic Anatomy (with emphasis on heart & vascular system)
- Physiology
- Biochemistry
- Pathology
- Microbiology
- Pharmacology related to Cardiac Care
- Medical Electronics & Biophysics
- Basic Electrocardiography (ECG)

- Basic Computer
- Communication Skills

Focus: Foundation knowledge of human body and cardiovascular system

Second Year – Core Cardiac Sciences

- Clinical Features & Treatment of Cardiac Diseases
- Advanced Electrocardiography (ECG)
- Echocardiography

Focus: Understanding heart diseases and diagnostic techniques

Third Year – Advanced Cardiac Technology

- Cardiac Catheterization Laboratory Basics
- Cardiac Catheterization Laboratory Advanced

Focus: Advanced diagnostic and interventional procedures

Internship (Compulsory – 1 Year)

Students undergo intensive clinical training in:

- 3 Months-Intensive Cardiac Care Units (ICCU)
- 3 Months-Cath Lab and Blood Bank
- 3 Months-Echocardiography Lab
- 3 Months-Holter (Ambulatory ECG)

Focus: Hands-on clinical exposure and patient management

PRACTICAL & CLINICAL TRAINING

Students gain practical experience in:

- Electrocardiogram (ECG) recording & interpretation
- Echocardiography procedures
- Cardiac catheterization assistance
- Treadmill stress testing (TMT)

- Hemodynamic monitoring

EVALUATION & ASSESSMENT

- I- III Internal Assessment (Theory & Practical)
- Practical Examination & Clinical Evaluation
- Model Examination
- Viva Voce
- University Examination

CAREER OPPORTUNITIES

Graduates can work as:

- Cardiac Technologist
- ECG Technician
- Cath Lab Technician
- Echocardiography Technician
- ICU/Cardiac Care Technician

HIGHER EDUCATION OPPORTUNITIES

- M.Sc. Cardiac Technology
- M.Sc. Cardiovascular Technology
- Master of Hospital Administration (MHA)