



North Carolina A&T State University
Office of Continuing Studies and Professional Development
Collaborating Partners – Condensed Curriculum International and the School of Nursing

EKG Technician Certification Program

EKG Technicians

EKG Technicians are responsible for performing electrocardiogram tests in order to monitor and record electrical impulses transmitted by the heart. These tests include basic EKGs, Holter Monitoring (portable EKG which records activity for 24-48 hrs.), 12 lead placement and Stress Tests (treadmill). They assist a physician in diagnosing and treating cardiac and blood vessel irregularities.

EKG Technicians – Employment & Education

EKG Technicians work in physician offices, hospitals, clinics, and other health care facilities and organizations. EKG Technicians also work for insurance companies to establish health and life insurance policies. Similar to other growing healthcare professions, the demand for EKG Technicians is expected to continue to grow substantially.

Educational Requirements*

People who are interested in becoming a certified EKG Technician should possess a High School diploma or GED equivalent and basic math skills.

EKG Technician Certification Program

This comprehensive 50 hour EKG Technician Certification Program prepares students to function as EKG Technicians and to take the American Society of Phlebotomy Technician (ASPT) – Electrocardiograph (EKG) Technician exam in addition to other National Certification Exams. This course will include important practice and background information on anatomy of the heart and physiology, medical disease processes, medical terminology, medical ethics, legal aspects of patient contact, the Holter monitor, electrocardiography and echocardiography.

Additionally, students will practice with equipment and perform hands-on labs including

introduction to the function and proper use of the EKG machine, the normal anatomy of the chest wall for proper lead placement, 12-lead placement and other clinical practices. EKG Technicians also analyze printed readings of EKG tests, measuring various “cardiac intervals and complexes” and determining normal vs. abnormal EKG.

The EKG Technician Certification Program includes a graded final exam to help prepare students for the ASPT – EKG Technician Exam.

EKG Technician Detailed Course Information

- ◆ role of the EKG Technician
- ◆ function of the EKG Department in a variety of settings (hospital, clinic, office, mobile service)
- ◆ introduction to medical terminology
- ◆ medical terminology related to electrocardiography
- ◆ care & safety of patients, medical & legal aspects
- ◆ anatomy of the heart, conduct ion system, circulation of the heart and blood vessels
- ◆ electrical conduction system of the heart
- ◆ cardiac cycle (electric system)
- ◆ EKG strip analysis (P,Q,R,S,T wave form interpretation)
- ◆ normal sinus rhythm, sinus bradycardis, sinus tachycardia
- ◆ basic EKG interpretation, sinus rhythm, and ventricular rhythms, asystole; example rhythm
- ◆ recognizing artifacts; troubleshooting, tracing problems
- ◆ practice EKG strips; EKG rhythms
- ◆ preparing a patient for EKG
- ◆ 12 lead EKGs (interpretation and troubleshooting)
- ◆ 12 lead placement
- ◆ Echocardiography
- ◆ other roles for the EKG Technician