



EASTERN
West Virginia Community & Technical College
Workforce Education Department

EKG Technician

The EKG Technician Profession

EKG technicians are in demand! EKG technicians work in physician's offices, hospitals, clinics, and other healthcare facilities and organizations. EKG technicians also work for insurance companies to provide data for health and life insurance policies. Similar to other growing healthcare professions, the demand for EKG technicians is expected to continue to grow substantially. Approximately 5% more EKG technician jobs will be available by the year 2018.

The EKG Technician Program

This EKG Technician program prepares students to function as EKG technicians. This course covers the following key areas and topics:

- Detailed anatomy and physiology of the heart
- Medical disease processes and terminology
- Medical ethics and legal aspects of patient contact
- Electrocardiography and echocardiography
- An introduction to the components, function, and proper use of the EKG machine
- The normal anatomy of the chest wall for proper lead placement
- 12-lead placement and other practices

Education & Certification

- EKG Technicians should have or be pursuing a high school diploma or GED.
- There are several EKG technician national certification exams that are available to students.

Detailed Course Topics Covered

- Role of the EKG technician
- Function of the EKG department in a variety of settings (hospital, clinic, office, mobile service)
- Medical terminology related to electrocardiography
- Care and safety of patients including medical and legal aspects of patient care
- Anatomy and physiology of the cardiovascular system
- Electrophysiology, the conduction system of the heart, and the cardiac cycle
- Circulation of blood through the heart and vessels
- Lead placement for 12-lead electrocardiography
- Basic EKG interpretation of normal rhythms and arrhythmias
- EKG troubleshooting including recognizing artifacts
- Waves and measurements
- EKG strip analysis (P,Q,R,S,T wave-form interpretation)
- Identification of rhythms using the 12-lead EKG
- Pacemakers
- Holter monitoring and the echocardiogram