## **Health Science Cluster**

**Diagnostic Services Pathway** - This pathway applies to occupations or functions primarily involved in creating a picture of the health status of patients and other clients at a single point in time. The standards specify the knowledge and skills needed by professionals in the diagnostic services pathway.

Diagnostic Medical Sonographer - Students in this major will learn how to be Sonographer. They will learn body mechanics, scanning techniques, protocols, record keeping, and ethics. They will also learn about the physical and psychological concepts of patient care including routine procedures. Students are introduced to legal and ethics practiced in healthcare, anatomy and physiology, physics, and ultrasound equipment. Students will also learn the theory and techniques for various procedures including abdominal, transabdominal, small parts, and vascular ultrasounds and how to recognize normal and pathologic states during ultrasonic exams. Students will also have an opportunity for clinicals in this major. Students will need to obtain certification from the American Registry for Diagnostic Medical Sonography.

Electrocardiograph Technician – Electrocardiograph (ECG or EKG) technicians usually work under the supervision of physicians in hospitals, doctors' offices, or clinics. They operate electrocardiogram equipment to monitor the patient's heart rhythm. Students in this major complete the health care core curriculum, medical terminology, and anatomy and physiology. They also learn how to connect electrodes to patients, monitor equipment output, record test results, and identify emergencies or abnormalities. Additionally students are provided the opportunity to use the theory in practical clinical experiences.

Magnetic Resonance Imaging Technician - Students in this major will need to have completed the Radiologic Technologist career major prior to enrolling in this one. In this major, students will learn about Magnetic Resonance Imaging Technician (MRI) safety, cross-sectional anatomy, and precautions and contraindications related to the administration of MRI contrast media. Patient care, including safety and how to comfort patients will also be covered. Additionally the student is provided the opportunity to use the theory in practical clinical experiences. Students will need to obtain certification from the American Registry of Radiologic Technologist (ARRT) in order to practice this career major.

**Phlebotomist** - Students in this career major learn how draw blood for donations, tests, transfusions, and research. They learn the importance of ethics, timeliness, and the importance of following procedures. Students also complete the health care core curriculum, medical terminology, and anatomy and physiology. An externship also is included as part of the coursework. A Registered Phlebotomy Technician (RPT) certification is available.

Radiologic Technologist - Students in this major will learn how to perform imaging procedures using radiation. They will learn about imaging procedure and learn problem-solving techniques for image evaluation, and factors that can affect image quality. They will also learn how to work a variety of radiographic equipment and how to protect themselves and patients. In addition, students will also learn about patient care and how to handle routine and emergency patient care along with ethics, techniques of venipuncture and how to administer diagnostic contrast agents.

Clinicals are also included in this major. Students will need to obtain certification from the American Registry of Radiologic Technologist (ARRT) in order to practice this career major.

Radiology Aide - Radiology aides assist radiologic technologist in obtaining diagnostic images. Students in this major will learn about patient care, radiation safety, radiograph handling procedures and how to assist radiologic technologists. Students will also have an opportunity for clinical practice. In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology. Also, Core First Aid and Healthcare Provider CPR is included in this career major.