Course Number: RADT-A0196          OHLAP Credit: No
OCAS Code: None
Course Length: 72 Hours
Career Cluster: Health Science
Career Pathway: Diagnostic Services
Career Major(s): Radiologic Technologist

Pre-requisite(s):
Course Description: Content establishes a knowledge base in radiographic, fluoroscopic and mobile equipment requirements and design. The content also provides a basic knowledge of quality control.

Textbooks:

Online resources
Blackboard™

Course Objectives:
1. Describe potential difference, current and resistance.
2. Describe the general components and function of the x-ray circuit to include the tube and filament circuits.
3. Compare generators in terms of radiation produced and efficiency.
4. Discuss fixed and mobile radiographic equipment in terms of purpose, components, types and applications.
5. Demonstrate operation of various types of fixed and mobile radiographic equipment.
6. Describe the components and function of automatic exposure control (AEC) devices.
7. Demonstrate proper use of AEC devices.
8. Describe the components and function of diagnostic x-ray tubes.
9. Explain methods used to extend x-ray tube life.
10. Discuss fixed and mobile fluoroscopic equipment in terms of purpose, components, types and applications.
11. Explain image-intensified, flat panel and pulsed fluoroscopy.
12. Indicate the purpose, construction and application of the fluoroscopic monitor.
13. Discuss quality control (QC) for imaging equipment and accessories.
14. Evaluate the results of standard QC tests.

All objectives are taken from the ASRT (American Society of Radiologic Technologists) curriculum © 2017
Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures: 1. Students are graded on theory and lab practice and performance.
2. Each course must be passed with eighty (80%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.
4. Students wanting to take advantage of college credit/alliance agreements must maintain an 80% in their coursework.
5. Career Major grades established during coursework are a major criteria in successfully obtaining certification.

Description of Classroom, Laboratories, and Equipment: Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit: The student may be eligible to take state, national or industry exam after completion of the program. Tulsa Tech students may be able to earn college credit based on their knowledge gained at Tech. The process of earning credit through Prior Learning Assessment (PLA) will be determined after completion with Tech and based on certification, credential or knowledge of the subject. See program counselor for additional information.

College Credit Eligibility: All Tulsa Tech students (high school and adult) may have the opportunity to receive college credit upon completion of their program. Our College Relations office will work with students regarding the benefits of Prior Learning Assessments (PLA) toward an Associate of Applied Science (AAS) degree or a technical college certificate at area colleges. For more details call the College Relations office at 918.828.5000.