UTAH SYSTEM OF HIGHER EDUCATION

Utah System of Higher Education
Heavy Equipment Technology
FY2027 / 10 Credits (300 Clock-Hours)

Foundational Courses

TEDT 2000 Hydraulic Systems — 2 Credits / 60 Clock-Hours

The Hydraulic Systems course identifies and describes the purposes of various components used in hydraulic systems and provides understanding of hydraulic system operation to safely maintain and repair equipment and systems.
Objectives:
• Classify system components.
• Interpret basic schematics.
• Describe how a hydraulic system operates.
• Demonstrate safe working practices.

TEDT 2010 Advanced Components — 1 Credit / 30 Clock-Hours

The Advanced Components teaches students to identify and understand utilization of advanced hydraulic systems for use in a wider variety of applications. Students will be able to recognize and repair individual components and understand the various applications and the reason for their use.
Objectives:
• Identify a wide variety of hydraulic system components.
• Demonstrate the applications of components within the hydraulic system.
• Repair components of the hydraulic system.

TEDT 2020 Advanced Schematics — 1 Credit / 30 Clock-Hours

The Advanced Schematics course teaches students to recognize hydraulic symbols and become proficient at recognizing, reading, and following intricate hydraulic schematics and recognize the components.
Objectives:
• Describe the meaning of hydraulic symbols.
• Interpret intricate hydraulic schematics.
• Identify symbols and recognize the component.
• Explain hydraulic systems and how they work.

TEDT 2030 Advanced Troubleshooting — 1 Credit / 30 Clock-Hours

In the Advanced Troubleshooting course, students will understand, inspect, and diagnose hydraulic systems and complete safe and correct repair procedures. Failure analysis comprehension will enhance repair practices and procedures.
Objectives:
• Identify correct diagnosis of hydraulic systems.
• Illustrate failure analysis.
• Apply safe and correct repair techniques of hydraulic systems.
• Inspect hydraulic systems.

TEDT 2040 Track Repair — 1 Credit / 30 Clock-Hours

In this course, students will learn how to maintain track systems, as well as how they can fail, and how to repair them.
Objectives:
• Diagnose cause of a failed track.
• Explain track drive systems.
• Repair failed track.

TEDT 2050 Basic Welding for Advanced Equipment **3 Credits / 90 Clock-Hours**

In this course, students will learn basic welding processes and techniques that may be needed to complete repairs including different types of welding for proper repairs, and when to utilize them.
Objectives:
• Perform basic welding skills.
• Perform welds that will hold up under heavy use.
• Determine the best type of welding for the various repairs needed.

TEDT 2060 Thermo and Plasma Cutting **1 Credit / 30 Clock-Hours**

In this course, students will expand on the torch cutting previously learned. They will learn different processes and techniques to help with more precise cutting for specific repairs, and when to use them for safe and proper repairs.
Objectives:
• Use a plasma cutter.
• Demonstrate proper thermo cutting techniques.
• Conduct proper cutting techniques.