



Chapter 6 Training

6.0 Introduction

Within this Manual of Instruction, the topic of training is discussed in multiple chapters. This chapter will provide a high-level overview of the current, required, and recommended training that is available to maintenance employees. Training can come in various formats and delivery methods. This chapter will provide the reader with shortcuts to find either the training modules (UDOT Learning Portal) or point them to the individuals who can assist in delivering the training they need.

6.1 New Employee Orientation (NEO)

All new UDOT-benefited employees are required to attend New Employee Orientation (NEO). The New Employee Orientation is a three-day training that introduces new employees to the mission, vision, goals and objective of the department. New employees are also introduced to many training tools and assessments that supervisors will use to help guide employees through their careers at UDOT. A few topics covered in NEO are listed below, along with the current agenda.

Clifton Strengths

One such assessment is called “Clifton Strengths”. This information will also be provided to the employee's supervisor to help the supervisor understand how the employee can be utilized according to their strengths.

OSHA 10

The nature of the work at UDOT dealing with the transportation system is exciting, but caution must be taken in certain circumstances. The new employees will be introduced to safety principles and approaches that can help protect them and their co-workers.



MAINTENANCE

Organizational Structure

The department's organizational structure is shown and explained to new employees. UDOT's mission, vision, and strategic goals are discussed to give the new employees an idea of what is important to the department and where it is headed.

Maintenance Management System (MMS) - ATOM

For Maintenance and Construction employees, an account will be created within the Maintenance Management system along with a basic introduction of how the system works and how the employee will enter their time. The MMS is where the maintenance employee will not only enter the hours they work each day, but also enter all the necessary information against the asset they worked on.

[UDOT NEO Welcome and Safety Training Agenda](#)

[UDOT NEO Webpage](#)

[Maintenance Management System - Knowledge Center](#)

6.2 Region Trainers

Every Region has trainers who are dedicated to helping those who work in construction and maintenance. The region trainers work with the maintenance stations, district engineers, area supervisors, and resident engineers (construction) to develop training programs and plans to address the needs of the transportation technicians. The region trainers also coordinate with the Employee Development Group To work on joint training programs such as the academy, the area supervisors conference, along with other joint initiatives for training.

[Region Trainers](#)

6.3 Employee Development Group

The Department understands the importance of providing the necessary training for the development and continual growth of their employees. The Employee Development Group is the division that coordinates with all other divisions within the Department to



MAINTENANCE

develop the necessary programs needed to educate and provide a competent workforce.

[Learning and Development Group](#)

6.4 The Learning Portal

The Employee Development Group has developed the learning portal that provides UDOT employees a centralized location to access training, find information about career paths, sign up for leadership courses, and a repository for important publications such as AASHTO, annual UDOT transportation conference presentations, and TRB (see figure below for a list of content provided). The learning portal also allows managers & supervisors to assign training to their employees that may be needed to develop and strengthen their skills, traits, and abilities. Managers & supervisors can assign classes to their employees and check on the status and progress that their employees are making on assigned training. The Department also utilizes the learning portal to distribute department wide training, such as safety awareness, stormwater training, and procurement training (if you are in a position that deals with the procuring of goods and services).



MAINTENANCE

UDOT Programs & Certifications



Construction Training

View all of UDOT's construction inspection courses and certifications.

[Learn More](#)

Materials Testing Certification

UDOT's Transportation Technician Qualification Program (TTQP).

[Learn More](#)

Career Paths

Learn more on how to grow your career at UDOT

[Learn More](#)

Leadership

Grow your leadership skills with the UDOT Leadership Series

[Learn More](#)

Mentoring

Mentor career and personal development

[Learn More](#)

Ideas

Here you can post and discuss ideas about making UDOT more efficient, effective and safe.

[Learn More](#)

Utah Transportation Conference

View recordings of past conference sessions.

[View Sessions](#)

Digital Library

View publications from AASHTO, TRB, and more.

[Learn More](#)

Professional Development

Build skills to improve your day to day job tasks.

[View Courses](#)

Safety and Compliance Training

Learn more about UDOT's safety and compliance training

[View Courses](#)

Help

Support page for the UDOT Learning Portal.

[Help](#)

[Access to the Learning Portal:](#)

ADD LINK TO HOW TO USE THE PORTAL

SUPERVISORS - HOW TO ASSIGN

6.5 Transportation Technician Education Program (TEP)

As described above, the Employee Development Group works hand-in-hand with the director of maintenance & planning, the director of construction, and the regions to identify programs and training needed to keep UDOT's workforce proficient and

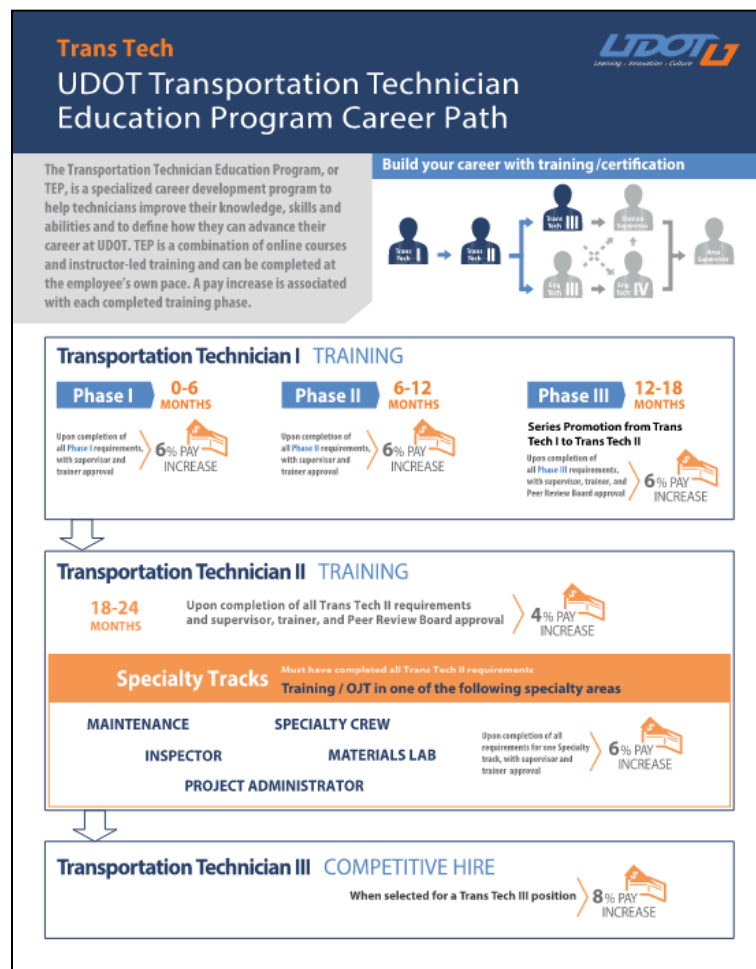


MAINTENANCE

competent in their daily duties. One such program is geared toward the transportation technicians of the Department and is referred to as the Transportation Technician Education Program.

Overview

The Transportation Technician Education Program, or TEP, is a specialized career development program. It helps technicians improve their knowledge, skills, and abilities and defines how they can advance their careers at UDOT. The TEP combines online courses and instructor-led training and can be completed at the employee's own pace. A pay increase is associated with each completed training phase.



[TEP Career Path.](#)

The TEP has been developed to encourage transportation technicians to complete all the necessary training and courses in order to specialize in an area of their choice. The TEP career path identifies the courses along with the timing associated with each phase and level. In addition, UDOT Policy 05-52 (transportation technician career

ladder) provides more details regarding the TEP and can be found at the following link:

[05-52 Transportation Technician Career ladder.](#)

Within the TEP is a list of courses required to advance (see TEP course checklist for required courses and their estimated number of hours to complete).



MAINTENANCE

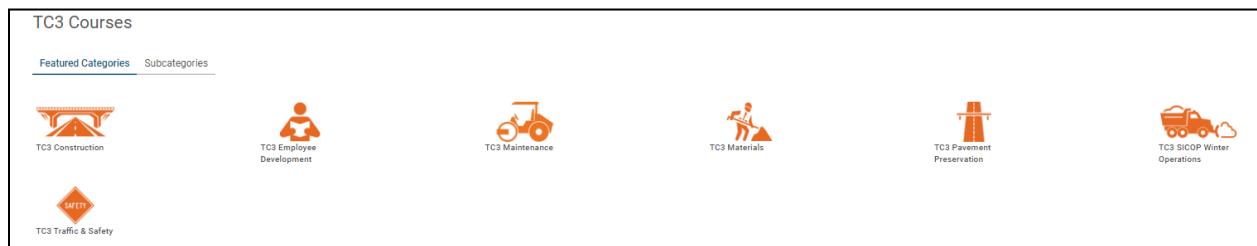
[TEP Course Checklist](#)

TC3 Training

AASHTO Technical Training Solutions is a technical service program within AASHTO that focuses on developing training products for technical staff in the areas of construction, maintenance, and materials. It has a library of more than 250 online training modules covering a variety of topics in the three primary disciplines.

AASHTO Technical Training is supplemental training to the TEP that will continue to provide additional opportunities for growth and development within maintenance, construction, materials, and other areas. The areas for maintenance have been expanded to show the exact courses provided (these may change as the content for TC3 expands).

[TC3 Training](#)



The following categories of training are provided:

[Maintenance](#)

Within the maintenance heading, the user will be able to take courses that will advance their knowledge in the following areas:

- PCC Pavement
- Pavement Preservation
- Shaping Shoulders
- Roadway Drainage: shoulders, trenches, ditches, proper water removal
- Roadside



MAINTENANCE

- Weather-Related
- Underground Related Storage Tanks
- Cultural and Historic Preservation
- Bridge
- Joints
- Materials

[SICOP Winter Operations](#)

SICOPS is also discussed in the Winter Operations chapter and provides additional training on all things related to Snow and Ice removal and operations;

- Anti-Icing
- Weather Basics
- Blowing Snow Mitigation
- Plowing Techniques
- Winter Maintenance Management
- Maintenance Equipment
- Snow and Ice Performance Measures
- Selecting Snow and Ice Materials to Mitigate
- RWIS and Anti-Icing

Other subject areas that are available to maintenance that could help expand their knowledge base are:

[TC3 Materials](#)

[TC3 Pavement Preservation](#)

[TC3 Traffic & Safety](#)



6.6 Peer Review Processes & Evaluations

Peer reviews are the ability of transportation technicians to demonstrate their knowledge, skills, and abilities in front of a group of peers, who evaluate the employees' abilities in order to advance through the TEP. Each region may choose to operate and set up their peer reviews as they see fit based on the needs of their region and their peer review panel. Some regions may choose to have a written and oral exam at different levels of the TEP, whereas other regions may have a conversation related to the topics needed to advance through the TEP. For information related to your region, speak to your region trainers for the latest information regarding their peer review process.

[See UDOT Policy 05-52 Transportation Technician Career Ladder Section IV.G. Peer Review Board Process.](#)

6.7 General Maintenance Training Opportunities

UDOT University

UDOT University is the department's webpage that provides information and access to the learning portal, along with other helpful links to training and information. This web page contains instructional videos that show how to use the learning portal, as well as ***instructional videos for managers and supervisors on how to assign courses to their employees.***



MAINTENANCE

Welcome to the UDOT University webpage, the home of UDOT's training program. On these webpages you will find all of the training that is offered by the Utah Department of Transportation for State employees, and other organizations, contractors, and consultants that work with our State Transportation System.

Use the Links below to navigate through UDOT U's web page.

- [UDOT Learning Portal System – Employee Access](#)
- [UDOT Learning Portal System – Consultant/Contractor Access](#)

Learning Portal Support

Common Issues ▼

Support for Trainers ▲

View of Learning Activities

[PDF](#)

How to Assign Courses

[PDF](#)

Employees ▲

Understanding the Learning Portal

[PDF](#)

Using a Checklist

[Video](#)

Rating a Skill

[Video](#)

Managers & Supervisors ▲

Assigning Courses

[PDF](#)

Marking Courses Complete

[PDF](#)

Running Team Reports

[PDF](#)

Evaluating Checklists

[Video](#)

Rating Skills

[Video](#)

Checklists & Skills

[PDF](#)

Contact Support ▼



MAINTENANCE

Academy

Every spring and fall, the regions team up with the Employee Development Group (EDG) to provide training on specialized topics that have been identified throughout the year. Each region hosts their own academy. The academy is geared toward new transportation technicians in order to prepare them for the upcoming winter or summer season. Academies are focused on construction and maintenance principles that each transportation technician will be expected to learn and demonstrate throughout their careers with UDOT. The academy is an opportunity for transportation technicians to learn from other technicians, the regions, and EDG trainers who may bring different experiences from across the state.

For more information on the agenda, along with the dates and times of the academy, please contact your regional trainers.

Independent Assurances (IA's) & Certifications

UDOT's Independent Assurance Program is the selected system-level assurance option required by federal regulation. It provides ongoing evaluation of all TTQP-qualified testing technicians qualified to perform testing on UDOT projects. For more information regarding the process and requirements of the IA's, please visit the following web page: [Independent Assurance](#)

Procurement and Contracting Training

Procurement and contract training is provided in Chapter 17 and can be accessed through this link: [Chapter 17 Procurement And Contracting](#)

Additional information and training regarding procurement can also be found on the learning portal at the following location: [Procurement](#).

Area Supervisor Conference

Every year the Central Maintenance Division coordinates with the regions and holds an area supervisor conference where every area supervisor from across the state is invited to attend. The goal of the conference is for Central Maintenance and the regions to share information that demonstrates efficiencies, and lessons learned or to provide updates on initiatives including but not limited to: lands and buildings program, the stormwater program, the striping program, snow and ice approaches and/or



MAINTENANCE

methodologies, equipment usage, and advances with the maintenance management program:

[UDOT Annual Area Supervisor's Conference 2024 Agenda](#)

Stormwater Management Training

As discussed in [Chapter 12 Stormwater Management](#), the following courses are required on an annual basis:

- Welcome to Employee Stormwater Training
- Long-Term Stormwater Management
- Construction Site Stormwater Runoff Control
- Pollution Prevention and Good Housekeeping

They can be accessed through the UDOT learning portal at the following location:

[Stormwater Management](#)

Winter Operations

Winter Operations is described in detail in [Chapter 8 Winter Operations](#) and contains information regarding materials, equipment, and operations needed to perform snow and ice control. The entire objective of Chapter 8 is to provide information and instructions to the reader regarding winter operations. In addition, Chapter 8 provides tools to help UDOT better manage and understand practices that are essential to efficient winter operations.

Specialized Crews

Chapter 10 speciality crews includes a section that describes the current training that is needed and provided by the department for the speciality crews. Please see the following section of chapter 10 for training that is needed for the speciality crews.

[Chapter 10, Section 3 Certifications and Training](#)



MAINTENANCE

Traffic Incident Management (TIMS) Training

UDOT offers traffic incident management training that provides maintenance and IMT personnel an opportunity to increase their knowledge on clearing crashes:

The objective of the training is to commit to Traffic Incident Management (TIM) throughout Utah, and improve quick clearance and queue protection efforts. Coordinate with all first responders to ensure that quick clearance and queue protection are primary concerns

- Identify strategies for clearing highway incidents
- Create a Traffic Incident Management plan for Utah
- Build and maintain performance measures for incident management and secondary crashes

[UDOT TIMS Training](#)

Equipment Training

Contained within Chapter 7 Equipment is a section provided to inform the reader of all the training that is available to maintenance personnel on the operation of equipment that is used in maintenance activities.

[Chapter 7- Equipment, Section 7.2 Training](#)

Commercial Driving License

All transportation technicians, construction technicians, roadway operations coordinators, and roadway operations managers who drive or intend to drive a vehicle with GVWR of 26,001 pounds or greater are required to possess a valid Class “A” CDL with an “N” endorsement.

[06A-15 Driver License Requirements](#)

As per the policy, UDOT facilitates the training, testing, and certification of employees required to drive state vehicles or other equipment:



MAINTENANCE

For CDL training, contact your immediate supervisor to get the required training.

The learning portal contains training intended to educate the learner on the general principles and practices needed to obtain a CDL.

[Learning Portal CDL Courses](#)

Mentorship for Equipment Training at the Maintenance Station

Transportation technicians Level 3 and above—identified or self-identified—that want to take on the role of an equipment mentor will receive formalized advanced training from equipment suppliers and vendors such as Cat and Wheeler. Four to five maintenance personnel across the region will be identified and selected to provide this mentorship. The goal is to develop equipment skills that will advance the knowledge and expertise of UDOT maintenance personnel in operating equipment. The approach of “Train the Trainer” will be used to spread the knowledge and accomplish the goal of the department.

ATOM - Refer to the Knowledge Center

As discussed in [Chapter 5 Maintenance Management System](#), (ATOM) is described along with functionality that will be used by maintenance personnel. A knowledge center has been created to assist the user in operating and entering information into the Maintenance Management System.

[Knowledge Center](#)

Emergency/Disaster Operations & Relief ([Chapter 18](#))

Within Chapter 18, training is provided on how to respond to emergency and disaster events. UDOT provides exercises that maintenance personnel participate in with other local and state agencies where they learn how to coordinate and work together during emergency situations.

[Chapter 18.8 Exercises and Training](#)



MAINTENANCE

6.8 UDOT Leadership Training

The Department offers a variety of leadership training depending upon the current roles and responsibilities of the individual employee. UDOT offers training to those who are new to supervisor roles along with ongoing leadership training to further enhance the skills of those who are currently in leadership positions.

Leadership opportunities and training can be found at the following location inside the learning portal.

[UDOT Leadership Development](#)

Below is a brief explanation of what each leadership course offers:

Leadership Essentials

If you are a newly promoted supervisor or hoping to become a supervisor, this course prepares you to lead. During these workshops, participants will hear from the human resources and finance departments about best supervisory practices.

New Supervisor Training

According to Admin Rule R477-10-5, this course is required for all new supervisors within their first six months of being a supervisor with UDOT. During this course, some topics will include communication, handling conflict, employee development and performance, generational differences, managing stress, time management, and much more."

UDOT Leadership Institute (Richfield)

This training consists of a series of modules focusing on strength-based leadership, coaching, and intentional leadership. It is held annually in Richfield, Utah, and senior leadership helps lead it and interacts with participants in various ways.



MAINTENANCE



UDOT LEADERSHIP SERIES IN PARTNERSHIP WITH UNIVERSITY OF UTAH EXECUTIVE LEADERSHIP

UDOT Leadership Institute Executive Level Leadership training delivered in partnership with the University Of Utah Eccles School of Business. The curriculum will consist of the following: six, one-day workshops, eight hours per day, scheduled at determined intervals to take place in the learning center or at the University of Utah.

AASHTO Leadership Development Series

<https://transportation.org/services/leadership-training/>



AASHTO Management Institute (AMI) –The AASHTO Management Institute takes place, on average, five times a year at various locations around the United States. This training offers content geared toward providing supervisors, managers, and leaders with the crucial competencies and resources needed to simplify and perform their critically important roles.

Throughout the four-day training, participants are introduced to the tools, techniques, and best practices required to manage people and projects effectively. For more experienced managers, the training updates and refines existing skills, challenges current thinking, introduces new concepts, and explores changing employee and customer relationships. The training also allows participants to share experiences – difficulties, and successes that impact transportation managers – as they learn from one another in the weekly interactive exercises.



AASHTO Leadership Institute (ALI) – Two Senior Leaders or others chosen by the Executive Director will participate in the National Transportation Leadership Institute.



MAINTENANCE

The AASHTO Leadership Institute is a nine-day immersive professional development experience held in Lawrence, Kansas. ALI provides research-driven, professional instruction and the opportunity to engage and learn from other transportation professionals.

Participants will focus on self-discovery and learn practical management techniques. Over the course of the nine-day Institute, participants will also build their leadership skills and knowledge, learning to motivate and enable employees so their organizations can excel, and develop a greater understanding of transportation issues and resources, through engagement with national transportation leaders.

The content will be provided in a rich, experiential way. Participants can expect hands-on instruction, engaging discussions, and the opportunity to learn by doing.

ALI is designed to meet the needs of mid-to-high-level managers considered high-potential employees by their organizations. Candidates who attend ALI should be in a management position or hold a position with an organization-wide impact. Participants should be motivated to develop their managerial and leadership skills, be interested in self-exploration, and be prepared to engage in learning activities and group discussions. Institute participants are selected from among those nominated by AASHTO member departments and affiliates. Enrollment in the 2024 AASHTO Leadership Institute is in high demand.

6.9 Other Opportunities for Training

- [SICOPS](#) - Winter Maintenance Technical Service Program (See [Chapter 8 Winter Operations](#))
- [AASHTO TC3](#) - Technical Training
- [Clear Roads](#) - Clear Roads Peer Exchange
- [Aurora](#) - Weather Peer Exchange, Iowa State University



MAINTENANCE

- [NOCOE](#) - ITE, AASHTO and ITS America Collaboration
- [TRB](#) - Transportation Research Board
- [TRB TRID](#) - Transportation Research Information Database
- [FHWA NHI](#) - Training is also provided by FHWA and the National Highway Institute. The courses offered vary based on subject matter and experience level. Some of these courses are free while others will require pre-approval from a supervisor or from the Learning and Development Group.

END OF CHAPTER