

Appendix A-11

WORK PROCESS SCHEDULE **Overhead Utility Installer Technician** **O*NET-SOC CODE : XX-XXXX RAPIDS CODE: XXXXCB**

Description: The Overhead Utility Installer Technician (OUIT) is a member of a crew with skills in the construction and maintenance of overhead telecom utility and broadband systems. Depending on the service provided, the OUIT will work with a wide variety of cabling, including fiber optic cable, as part of their daily work routine. In addition, the OUIT may be required to operate overhead equipment.

The OUIT typically performs their job duties in outdoor environments, in all weather conditions, and includes some travel. The OUIT must have the ability to lift and/or pull 50-75 pounds several times each day and can endure long periods of standing, sitting or walking. The ability to bend, twist, and reach overhead is required along with the continuous use of both hands to operate hand tools and perform other duties.

This schedule is attached to and a part of these Standards for the above identified occupation.

1. TYPE OF OCCUPATION

Time-based Competency-based Hybrid

2. TERM OF APPRENTICESHIP

RAPIDS CODE	OCCUPATION	TERM/HOURS	COMPLETION CERTIFICATE
XXXXCB	Overhead Utility Installer Technician	Competency Based	Certificate of Completion

Upon completion of OUIT apprenticeship, the apprentice will receive a Certificate of Completion. His/her Certificate of Completion of Apprenticeship will reflect the completion of the OUIT occupation.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: 1 apprentice(s) to be employed in each scope of work, and/or jobsite employing 1 journeyworker(s).

4. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages based on either a percentage or a dollar amount of the current hourly journeyworker wage rate, which will range from \$12-\$18 an hour, this is regionally dependent.

1st Level hours = \$12 (6 months)

2nd Level hours = \$15 (1 year)

Final journey worker wage = \$18

5. WORK PROCESS SCHEDULE (See attached Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agency for approval.

6. RELATED INSTRUCTION OUTLINE (See attached Related Instruction Outline)

The sponsor may modify the related instruction outlines to meet local needs prior to submitting these Standards to the appropriate Registration Agency for approval.

WORK PROCESS SCHEDULE
Overhead Utility Installer Technician
O*NET-SOC CODE : XX-XXXX RAPIDS CODE: XXXXCB

ON-THE-JOB LEARNING

Description: The Overhead Utility Installer Technician (OUIT) is a member of a crew with skills in the construction and maintenance of overhead telecom utility and broadband systems. Depending on the service provided, the OUIT will work with a wide variety of cabling, including fiber optic cable, as part of their daily work routine. In addition, the OUIT may be required to operate overhead equipment.

The OUIT typically performs their job duties in outdoor environments, in all weather conditions, and includes some travel. The OUIT must have the ability to lift and/or pull 50-75 pounds several times each day and can endure long periods of standing, sitting or walking. The ability to bend, twist, and reach overhead is required along with the continuous use of both hands to operate hand tools and perform other duties.

The following outlines the on-the-job training for the occupation of OUIT. The suggested related instruction which supplements the on-the-job training follows the on-the-job training outline.

Directions: Evaluate the apprentice's competency and skill level using the rating scale below. The numerical ratings of 4, 3, 2 and 1 are not intended to represent the traditional school grading system of A, B, C and D. Ratings should reflect job readiness for each of the competencies rather than a grade given in the class.

- Rating Scale:**
- 4 - Skilled can work independently with no supervision
 - 3 - Moderately skilled can perform job completely with limited supervision
 - 2 - Limited Skill- required instruction and close supervision
 - 1 - No Exposure-No Experience or knowledge in this area

This is a competency-based apprenticeship. On the Job learning competencies are identified within the tables below.

<i>On the Job Learning Competencies</i>	Component 1	Component 2	Component 3	Rating Scale				Mentor/Supervisor Approval & Date
<i>Determine by written and/or practical demonstration.</i>	Baseline training	Intermediate training	Completion	4	3	2	1	
INSTALL AERIAL UTILITIES								
Install utility poles								
Frame utility poles								
Install utility pole guy wires								
Install utility pole anchors								
Pole climbing								
Install communication support strands								
Lash communication lines								
Perform line tensioning								
Terminate aerial lines (e.g., clipping, dead ending)								
Install overhead pole mounted equipment								

<i>On the Job Learning Competencies</i>	Component 1	Component 2	Component 3	Rating Scale				Mentor/Supervisor Approval & Date
<i>Determine by written and/or practical demonstration.</i>	Baseline training	Intermediate training	Completion	4	3	2	1	
MAINTAIN AERIAL UTILITIES								
Perform pole inspections								
Identify vegetation encroachment								

<i>On the Job Learning Competencies</i>	Component 1	Component 2	Component 3	Rating Scale				Mentor/Supervisor
<i>Determine by written and/or practical demonstration.</i>	Baseline training	Intermediate training	Completion	4	3	2	1	Approval & Date
MANAGE JOB SITE								
Notify public/landowner of pending work								
Conduct safety meeting								
Verify permitting documents								
Assess job site hazards								
Set up safe work zone								
Conduct job briefing								
Perform vehicle & equipment inspections (walkaround)								
Ability to communicate professionally with co-workers, property owners, and customers								
One call knowledge & responsibility								

<i>On the Job Learning Competencies</i>	Component 1	Component 2	Component 3	Rating Scale				Mentor/Supervisor
<i>Determine by written and/or practical demonstration.</i>	Baseline training	Intermediate training	Completion	4	3	2	1	Approval & Date
ADMINISTRATIVE TASKS								
Finalize as-built documents								
Complete daily timesheets and detailed recording of work activity								
Maintain equipment documentation								
Maintain job-site report								
Manage jobsite or truck inventory								
Complete accident/incident/outage reports								

<i>On the Job Learning Competencies</i>	Component 1	Component 2	Component 3	<i>Rating Scale</i>				<i>Mentor/Supervisor Approval & Date</i>
<i>Determine by written and/or practical demonstration.</i>	Baseline training	Intermediate training	Completion	4	3	2	1	
PROFESSIONAL DEVELOPMENT ACTIVITIES								
OSHA 10								
Traffic Flagger								
CPR/First Aid								
Maintain certifications and endorsements as required by employer such as: <ul style="list-style-type: none"> • CDL • Operator DOT qualifications • OSHA (10, 30) • Pole Top or Bucket Rescue • Working Aloft • HAZCOM • Traffic Flagger 								

<i>On the Job Learning Competencies</i>	Component 1	Component 2	Component 3	<i>Rating Scale</i>				<i>Mentor/Supervisor Approval & Date</i>
<i>Determine by written and/or practical demonstration.</i>	Baseline training	Intermediate training	Completion	4	3	2	1	
OFFICE TOOLS								
Effective use of office PC software when applicable. Products such as MS Word, Excel, PowerPoint.								
Manages email.								
Demonstrates proper use and maintenance/care for Laptop, Tablet or cell phone								

On the Job Learning Competencies <i>Determine by written and/or practical demonstration.</i>	Component 1 Baseline training	Component 2 Intermediate training	Component 3 Completion	Rating Scale 4 3 2 1				Mentor/Supervisor Approval & Date
USE OF HAND TOOLS & HEAVY EQUIPMENT								
Demonstrates proper use of common hand tools such as: <ul style="list-style-type: none"> • Air Compressor • Air & Hydraulic Tools • Block & Tackle • Cable Lasher • Chain Saw • Climbing Equipment • Crimpers • Dynamometer (tension) • ETDR or OTDR (Electronic or Optical Time Domain Reflectometer) • Fall Restraint Equipment • Hand tools • Hot Line Electrical Tools • Multi-Meter • Power Tools • Root Saws • Slings/Harnesses • Tape Measure • Traffic Control Tools • Underground Utility Locator • Voltage Indicator • Wire cutters • Inspect High Voltage Gloves, overshoes (if applicable) and high voltage blankets 								
Demonstrates proper use of common heavy equipment such as: <ul style="list-style-type: none"> • Bucket Truck • Digger Truck • Dozer • Dump Truck • Tractor and Trailer • Winch • Wood Chipper 								

RELATED INSTRUCTION OUTLINE
Overhead Utility Installer Technician
O*NET-SOC CODE : XX-XXXX RAPIDS CODE: XXXXCB

Description: Related instructional courses provide technical ability and a basic understanding of the telecommunication industry as well as the overall site development. Apprentices receive related instruction or classroom style training that complements the on-the-job learning. This instruction helps refine the technical and academic skills that apply to the job. Related instruction may be provided by a community college, technical school or college, an apprenticeship training school, or by the business itself. This instruction can be provided at the school, online, or at the work site.

The following are courses to be completed during the term of apprentice and under direct supervision of a Journey worker.

Core Skills:		Approximate Hours
1.0	Inspection, Care & Use of Personal Protection Equipment	1 hour
2.0	OSHA 10	10 hours
3.0	First Aid/CPR/Blood Borne Pathogens	4 hours
4.0	Hazard Assessment & Communication	10 hours
5.0	RF Awareness & Safety	1 hour
6.0	Underground Utility Locate Process (One Call)	2 hours
7.0	CDL & Safe Driving Practices including successful operate of tractor and trailer	20 hours
8.0	DOT – Securement of Equipment or Load	4 hours
9.0	Reading Blueprint/Construction Drawings	8 hours
10.0	Job Site Management	10 hours
11.0	Pole Climbing	12 hours
12.0	Bucket Truck (Aerial Lift)	16 hours
13.0	Cable Handling, Installation & Splicing	32 hours
14.0	Pole Excavation, Placement, Removal & Restoration	10 hours
15.0	Electrical Safety and Stray Voltage Detection	5 hours
16.0	Lock Out/Tag Out	2 hours
17.0	Material Handling & Storage	2 hours
18.0	Responding to Emergency Situations	4 hours
19.0	Apprenticeship Program Overview	1 hour
	TOTAL:	154 hours

Related Instruction Descriptions – Overhead Utility Installer Technician

1.0 Inspection, Care & Use of Personal Protection Equipment (PPE): Each apprentice must be trained in the inspection, care and use of PPE for the particular scope of work (SOW) and hazards addressed through their use. While the apprentice is being trained in PPE inspection, care and use, they are to be under direct supervision of a journey worker at all times, enabling them to draw on the competencies of the journey worker as they grow in experience in the inspection care, and proper use of PPE. Examples of PPE used by an apprentice include hard hat, proper footwear, eye/face protection, hearing protection, high voltage gloves and glove testing, high voltage blankets and blanket testing, high voltage overshoes and fall protection equipment. This list is not exclusive or exhaustive as the SOW may require the supervisory, journey worker to engage other types of engineering controls or safety measures. (This topic is part of OSHA 30 course content.)

2.0 OSHA 10 Hour: This is a version of the OSHA 10-hour course that is provided by a trainer that has been authorized to perform instruction from OSHA. Topics covered can include hazard identification, exit routes, electrical safety, personal protective equipment, hazard communication, ergonomics, recordkeeping, and reporting, etc. This course does not include confined space training.

3.0 First Aid/CPR/Bloodborne Pathogens: Must be properly trained and able to render First Aid, Cardiopulmonary Resuscitation and protect against infection from Blood Borne Pathogens. These courses follow the agendas established by Red Cross, American Heart Association, National Safety Council, or other like organizations. (This topic is part of OSHA 30 course content.)

4.0 Hazard Assessment & Communication: An introduction to the various environments and/or structures that work will be performed on. Based upon the SOW and the type of structure it is being applied to the hazards may change and this requires the ability to understand that there is a hazard and it must be communicated to the rest of the team. (This topic is part of OSHA 30 course content.)

5.0 RF Awareness & Safety: UITs could be exposed to radiofrequency radiation every day and not be aware of it. It is important for there to be an understanding of the hazard associated with RF and the ability to work as part of a team to communicate the hazard and means of abatement or use of PPE for protection.

6.0 Underground Utility Locate Process & One Call Requirement: This course will prepare the apprentice to assist the UIT to ensure all utilities are located and marked prior to digging/excavation per 29 CFR 1926.651(b) (2). This includes hand digging and pot holing.

7.0 Commercial Driver's License (CDL) & Safe Driving Practices: Travel from one site to another is one of the greatest risks that face workers in this industry. This course will take the apprentice through the DOT rules and regulations for the industry. Specific emphasis is placed upon proper rest, vehicle inspection, trailer inspection and backing, merging in and out of traffic, and what to do in the event of an emergency. CDL instruction provided off site and by a third-party instructor.

8.0 DOT Required Securement Of Equipment or Load: Introduction to performance requirements concerning cargo deceleration in the forward direction, and acceleration in the rearward and lateral directions, that cargo securement systems must withstand per Federal Motor Carrier Safety Administration (FMCSA) requirements.

9.0 Reading Blueprint/Construction Drawings: In this course, the apprentice will learn to understand, navigate, and use blueprints/construction drawings to support pre-construction project planning, job site hazard assessment, scope of work assignment

and job site management activities.

10.0 Job Site Management: This course will address best practices of job site management including coordination of multiple parties on site, monitoring project performance, managing quality and safety, and addressing issues that “go wrong”.

11.0 Pole Climbing: This course teaches the proper care of climbing tools and climbing wood structures. The course will give actual hands-on experience for pole top operations that require dynamic action.

12.0 Bucket Truck (Aerial Lift): Bucket truck training teaches the skills necessary to safely operate a bucket truck. The course will give actual hands-on experience for bucket truck rescue operations that require dynamic action.

13.0 Cable Handling, Installation and Splicing: This course will provide instruction in fiber optic technology including theory, safety, installation, splicing and testing techniques. Upon successful completion, the student may receive Fiber Optic Technician Certification from the Fiber Optic Association.

14.0 Pole Excavation, Installation, Removal & Restoration: This course is designed to provide apprentices with a basic understanding of and the ability to identify existing and predictable hazards in the surroundings of the excavation process, the resulting pole installation, removal and restoration of the site as part of construction completion. Backfill and compaction methods will be discussed.

15.0 Electrical Safety & Stray Voltage Detection: Training in the identification and abatement of electrical hazards that may be encountered as a part of the SOW. Electrical Safety training to include Minimum Approach Distance (MAD) for Telecom workers as per OSHA 29CFR1910.268 Table R-2, testing of rubber goods (Gloves booties, blankets), Proper use of a Foreign Voltage detector, other volt and voltage detector equipment. Identification and basic understanding of electrical distribution overhead wiring systems and components, Telecom Worker safety (40”) zone and distribution pole clearance requirements as per NESC, OSHA, State, Local and Electric Utility standards.

16.0 Lock Out/Tag Out: Must be trained in the identification and abatement of electrical hazards that may be encountered as a part of the SOW. Such training will address the proper use of monitors, lock out tag out, system turn down and client communication IAW 29 CFR 1926.4, sub part K. (This topic is part of OSHA 30 course content.)

17.0 Material Handling & Storage: This course provides basic information that employees should know before moving, handling, and storing materials; introduction of potential hazards for workers; discussion of precautions should workers take when moving materials manually or mechanically; precautions workers must take to avoid storage and stacking hazards. Training to include proper moving of wood poles and cable reels. (This topic is part of OSHA 30 course content.)

18.0 Responding to Emergency Situations: This course teaches the appropriate way to respond to emergency situations, keeping the public safe, identifying hazards, and what to do if an electrical hazard is found.

19.0 Apprenticeship Program Overview: This course will provide the apprentice with an overview of the apprenticeship program including information on the National Sponsor, employer’s expectation, discussion of the Standards of Apprenticeship, etc.