The Office of the Future of Work
Apprenticeship Colorado

Appendix A
ON-THE-JOB LEARNING OUTLINE
Fiber Optic Technician
O*NET-SOC CODE: 49-2021.00   RAPIDS CODE: 2064

Description	Approximate Hours
Workplace Safety • Identify Hazards • Understand workplace safety requirements • Maintain security and emergency procedures	250
Fiber Optic Installation Safety • General Safety including safety while climbing poles or ladders and working with heavy equipment • Eye, Face, Head and Skin Protection • Cleanliness of jobsite • Handling reels of fiber optic cable	250
Introduction to Fiber Optics • Hands-on demonstration and handling of fiber optic components • Site surveys and planning • Cable routing and management	375
Fiber Optic Cable Installation Basics • Paired with an experienced technician for ongoing guidance • Explore safety protocols related to cable installation • Group discussion on practical challenges and solutions • Practice handling fiber optic tools and equipment • Splicing and termination exercises • Cable installation simulations	375
Fiber Optic Testing and Troubleshooting • Interactive work on testing methods and equipment • Introduction to testing equipment • OTDR and power meter operation • Interpretation of test results	250
Network Configuration and Integration • Working with network configuration with fiber optics • Configuration exercise and practices - Set up basic network components • Configuration of switches and routers • Hands-on projects integrating fiber optics into networks • Collaboration with the IT team	250
Final Projects and Management • Work on final projects related to fiber optic installations • Execute a complete fiber optic installation • Document the entire process, including plans, installations, and test results	250

TOTAL MINIMUM HOURS 2,000