

# STATION/PBX INSTALLER & REPAIR TECHNICIAN

## APPENDIX A

O\*NET CODE 85502

This training outline is a minimum standard for Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

### WORK PROCESSES

|  | <b>Approximate Hours</b> |
|--|--------------------------|
| <b>A. Basic Telephone Cable Installation and Terminations</b>  | <b>1000</b>              |
| 1. Safety demonstration throughout performance is required.  |                          |
| 2. Building code requirements and floor plans.   |                          |
| 3. Cable and wire installation using floor duct, conduct, stud drilling and associated tools and equipment.  |                          |
| 4. Cable and wire termination using industry standard material, equipment and color code.                    |                          |
| <b>B. Telephone Station and Control Equipment Installation and Repair</b>                                    | <b>2000</b>              |
| 1. Basic electrical and telephone theory, print reading and key sheets.                                      |                          |
| 2. Installation of 1A2 and similar key systems.  |                          |
| 3. Backboard layouts.  |                          |
| 4. Power supplies.   |                          |
| 5. Buzzer circuits.  |                          |
| 6. Ringer matrix.  |                          |
| 7. Installation of specialized key systems, i.e., TIE Key-Lux, Omega, etc.                                   |                          |
| 8. Trouble shooting all key systems.   |                          |
| 9. Test equipment, i.e., tone, test set, buglamp, V.O.M.   |                          |
| <b>C. Installation and Maintenance of PABX Systems</b>   | <b>2000</b>              |
| 1. Electrical and environmental applications, i.e., power, grounding, air conditioning and humidity control. |                          |
| 2. System cabling requirements.  |                          |
| 3. System backboard layout.  |                          |

4. System program and strapping.
5. System installation.
6. Testing and troubleshooting.
7. Test equipment, i.e., scope and special test gear.

**D. Complete Telephone Systems Installation and Repair 1000**

1. Advanced electronics.
2. Specialized equipment.
3. Telephone transmission.

**Approximate Total Hours 6000**

*Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to <https://dol.ny.gov/public-work-and-prevailing-wage>*

# STATION/PBX INSTALLER & REPAIR TECHNICIAN

## APPENDIX B

### RELATED INSTRUCTION

#### **Blueprint Reading, Sketching and Drawing**

1. Elementary Blueprint Reading, Drawing and Sketching
2. Blueprint Reading for Switchboard Technicians
3. Symbols, Scales, Codes, Circuit Schematics and Diagrams

#### **Related Mathematics**

1. Fundamentals, Formula Solutions of Circuit Problems
2. Proportion, Interpolation, Estimation
3. Business Form and Records Requiring Computations

#### **Science**

1. Basic Physics
2. Electricity-Electronics Fundamentals, Circuit Analysis, Component Function
3. Test Procedures, Equipment
4. AC Fundamentals, Application
5. DC Fundamentals, Application
6. Basic, Applied Telephony

#### **Safety and First Aid**

1. Fundamentals, Industry Safety Programs
2. Resuscitation and Trade Safety
3. First Aid (6.5 hours every 3 years)
4. Sexual Harassment Prevention Training – must comply with section 201-g of the Labor Law)

#### **Industrial and Labor Relations**

1. History, Background
2. Current Laws, Practices

#### **Local-State-Federal Codes**

1. Electrical
2. Telephony

#### **Other Related Courses as necessary**

144 hours of Related Instruction is required for each Apprentice for each year.

Appendix B topics are approved by New York State Education Department.