



Employer Agreement

The foregoing undersigned employer hereby subscribes to the provisions of the Apprenticeship Standards formulated and registered by the **Program Sponsor. Employer Name** agrees to carry out the intent and purpose of said Standards and to abide by the rules and decisions of the Program Sponsor established under these Apprenticeship Standards. We have been furnished a true copy of the Standards and have read and understood them and do hereby request certification to train apprentices under the provisions of these Standards with all attendant rights and benefits thereof, until cancelled voluntarily or revoked by the Program Sponsor or Registration Agency. On-the-job, the apprentice is hereby guaranteed assignment to a skilled and competent journey worker and guaranteed that the work assigned to the apprentice will be rotated so as to ensure training in all phases of work.

This form must be signed and returned to the **Program Sponsor/Address** no later than the first day of class for the apprenticeship to become effective.

Signed: _____ Date: _____

Title: _____

Name of Company: _____

Address: _____

City/State/Zip Code: _____

Phone Number: (____) _____

Fax: (____) _____

Email: _____

Occupation: _____

Journey worker Wage: \$ _____

Total Workforce: _____

Total Certified Workforce: _____ Females: _____ Minority: _____

Total Apprentices Employed: _____

Reviewed and Approved by: _____

Sponsor Signature: _____ Date: _____

NC Community College System /ApprenticeshipNC

Signed: _____ Date: _____

Title: _____



Schedule of Related Instruction

Occupation: 49.2098.00

Fire Alarm Technician

Course Title and Description	Hours
1. FAAP 101. This course is designed for entry-level technicians in the Fire Alarm Industry who work under supervision and will provide basic skills.	144
1.1. Classroom Instruction	
1.1.1. Orientation	
1.1.2. Safety	
1.1.3. First Aid	
1.1.4. Physical Science Concepts	
1.1.5. Documentation and Reports	
1.2. Hands-On Training	
1.2.1. Safety (OSHA 10 ¹)	
1.2.2. CPR/First Aid ¹	
Course Title and Description	Hours
2. FAAP 102. This course is designed for technicians in the Fire Alarm Industry who have entry-level experience that need limited supervision, and will focus on routine tasks.	144
2.1. Classroom Instruction	
2.1.1. Safety	
2.1.2. Electrical Theory and Application	
2.1.3. Logic and Control Functions	
2.1.4. Electrical/Electronic Components	
2.1.5. Fire Alarm Symbols and Terminology	
2.1.6. Shop and Riser Drawings	
2.1.7. Types of Fire Alarm Systems	
2.1.8. Ancillary Systems	
2.1.9. Local Wireless Systems	
2.1.10. Listing Agencies	
2.1.11. Initiating Devices	
2.1.12. Combustion - Theory and Principles	
2.1.13. Automatic Detection Methods	
2.1.14. Prevention of Nuisance and False Alarms	
2.1.15. System Notification Appliances	
2.1.16. Alternative Notification Methods	
2.1.17. Special Hazard Protection Systems	
2.2. Hands-on Training	

¹ This course component to be provided by an approved third-party organization.



- 2.2.1. Aerial Lift Certification¹
 - 2.2.1.1. Scissor Lift
 - 2.2.1.2. Boom Lift

Course Title and Description	Hours
3. FAAP 103. This course is designed for technicians in the Fire Alarm Industry who have intermediate experience that need no supervision, and will focus on application and design.	144
3.1. Classroom Instruction <ul style="list-style-type: none"> 3.1.1. Codes and Standards 3.1.2. Electrical Workmanship Standards 3.1.3. System Calculations 3.1.4. Prescriptive and Performance-Based Design 3.1.5. Reliable and Survivable Systems 3.1.6. Smoke Detector Spacing 3.1.7. Heat Detector Spacing 3.1.8. Commissioning and Acceptance Testing 3.1.9. Maintenance Procedures 	
3.2. Hands-on Training (Provided with NFPA 70, NFPA 72, Ugly's Electrical Reference and Fluke® 117 Multimeter or Equivalent) <ul style="list-style-type: none"> 3.2.1. Test Equipment <ul style="list-style-type: none"> 3.2.1.1. Multimeter 3.2.1.2. Hydrometer 3.2.1.3. Megaohm Meter 3.2.1.4. Fiber Optic Tester 3.2.1.5. Tone Generator 3.2.2. Troubleshooting <ul style="list-style-type: none"> 3.2.2.1. Initiating Device Circuits (IDC) 3.2.2.2. Signaling Line Circuit (SLC) 3.2.2.3. Notification Appliance Circuits (NAC) 3.2.2.4. Audible Device (Speaker) Circuits 3.2.3. Inspection 3.2.4. Testing 3.2.5. Troubleshooting 	

Course Title and Description	Hours
4. FAAP 104. This course is designed for technicians in the Fire Alarm Industry who have intermediate experience that supervise others, and will focus on advanced concepts and tasks.	144
4.1. Classroom Instruction	

¹ This course component to be provided by an approved third-party organization.

- 4.1.1. Codes and Standards
- 4.1.2. State and Federal Agencies
- 4.1.3. Acts and Legislation
- 4.1.4. Occupancy Classifications
- 4.1.5. Control Panel Programming
- 4.1.6. Hostile Environment Design Considerations
- 4.1.7. Hazard Protection Analysis
- 4.1.8. Smoke Propagation Principles in Buildings
- 4.1.9. Interconnection of Systems
- 4.1.10. Life Safety Functions
- 4.1.11. Construction Relationships and Contracts
- 4.1.12. Insurance Agencies and Organizations
- 4.2. Hands-on Training
 - 4.2.1. Test Equipment
 - 4.2.2. Programming Practical

Total 576



Detailed Work Activities

Occupation: 49.2098.00

Fire Alarm Technician

1. Installation	Hours
1.1 Position equipment using hand tools, power tools, or heavy equipment.	3,200
1.2 Lay cables to connect equipment.	
1.3 Run wiring to connect equipment.	
1.4 Drill holes in parts, equipment, or materials.	
1.5 Install electrical components, equipment, or systems.	
1.6 Adjust equipment to ensure optimal performance.	
2. Service	Hours
2.1 Repair electrical components.	2,400
2.2 Repair electrical circuits or wiring.	
3. Inspection	Hours
3.1 Inspect equipment to locate or identify electrical problems.	1,600
3.2 Test electrical circuits or components for proper functioning.	
3.3 Inspect safety equipment to ensure proper functioning.	
4. Administration	Hours
4.1 Plan work procedures.	800
4.2 Determine types of equipment, tools, or materials needed for jobs.	
4.3 Estimate costs for labor or materials.	
4.4 Order materials, supplies, or equipment.	
4.5 Explain use of products or services.	
4.6 Confer with customers or users to assess problems.	
4.7 Document operational activities.	
	Total 8,000



Tasks

Occupation: 49.2098.00

Fire Alarm Technician

1. Installation		Hours
	1.1. Mount and fasten control panels, door and window contacts, sensors, or video cameras and attach electrical and telephone wiring to connect components.	3,200
	1.2. Mount raceways and conduits and fasten wires to wood framing, using staplers.	
	1.3. Feed cables through access holes, roof spaces, or cavity walls to reach fixture outlets, positioning and terminating cables, wires, or strapping.	
	1.4. Drill holes for wiring in wall studs, joists, ceilings, or floors.	
	1.5. Install, maintain, or repair security systems, alarm devices, or related equipment, following blueprints of electrical layouts and building plans.	
	1.6. Adjust sensitivity of units, based on room structures and manufacturers' recommendations, using programming keypads.	
2. Service		Hours
	2.1 Test and repair circuits and sensors, following wiring and system specifications.	2,400
	2.2 Examine systems to locate problems, such as loose connections or broken insulation.	
	2.3 Order replacement parts.	
3. Inspection		Hours
	3.1 Test backup batteries, keypad programming, sirens, or other security features to ensure proper functioning or to diagnose malfunctions.	1,600
4. Administration		Hours
	4.1 Inspect installation sites and study work orders, building plans, and installation manuals to determine materials requirements and installation procedures.	800
	4.2 Consult with clients to assess risks and to determine security requirements.	
	4.3 Demonstrate systems for customers and explain details, such as the causes and consequences of false alarms.	
	4.4 Provide customers with cost estimates for equipment installation.	
	4.5 Prepare documents, such as invoices or warranties.	
	4.6 Keep informed of new products and developments.	
	Total	8,000



Wage Scale – Fire Alarm Systems Installer

- Entry wage = \$15/hr
- Year 1 = \$17/hr
- Year 2 = \$18.50
- Year 3 = \$20/hr
- Year 4 = \$22.69