Appendix A

WORK PROCESS SCHEDULE

AND

RELATED INSTRUCTION OUTLINE

DEVELOPED FOR

Auburn University Facilities Management

APPROVED BY THE ALABAMA OFFICE OF APPRENTICESHIP ALABAMA DEPARTMENT OF COMMERCE

Date: 01/09/2023



Appendix A

WORK PROCESS SCHEDULE

Electrician

O*NET-SOC CODE: <u>47-2111.00</u> **RAPIDS CODE:** <u>0643</u>

 \boxtimes National Occupation \square State Occupation

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

1. APPRENTICESHIP APPROACH

 \boxtimes Time-based

Competency-based

□ Hybrid

2. TERM OF APPRENTICESHIP

The term of the apprenticeship is $\underline{8000}$ hours, supplemented by the $\underline{752.5}$ total hours of related instruction.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: $\underline{1}$ apprentice(s) to $\underline{1}$ 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 journeyworker wage rate. The journey worker wage for this occupation is \$17.50.

In no case will the starting wages of apprentices be less than that required by a minimum wage law that may be applicable.

APPRENTICESHIP PROGRESSIVE WAGE SCHEDULE			
PERIOD	HOURS	HOURLY WAGE	
1 st	Must complete 2000 total hours to move to period 2 wage	\$14.50 (starting wage)	
2 nd	Must complete 4000	\$15.50	



	total hours to move to period 3 wage	
3rd	Must complete 8000 total hours to move to journeyworker wage	\$16.50
ENTRY JOURNEYWORKER WAGE	8000	\$17.50

5. **PROBATIONARY PERIOD**

Every applicant selected for apprenticeship will serve a probationary period of 1000 hours.

6. SELECTION PROCEDURES

SECTION I – MINIMUM QUALIFICATIONS

Applicants will meet the following minimum qualifications to be eligible for the pool of applicants:

A. <u>Age</u>

Applicants must not be less than 16 years of age and provide appropriate verification of age respecting Alabama state laws.

B. Education

Applicants must have a high school diploma, General Educational Development (GED) equivalency, or other high school equivalency credential. Applicant must provide an official transcript(s) for high school and any post-high school education.

C. <u>Physical</u>

Applicants will be physically capable of performing the essential functions of the apprenticeship program, with or without a reasonable accommodation, and without posing a direct threat to the health and safety of the individual or others.

D. <u>Other</u>

SECTION II – SELECTION PROCEDURES

The sponsor has adopted the following selection procedures, consistent with the requirements set forth in forth in 29 CFR § 30.10(b):



- A. Applications will be accepted as specified by the sponsor.
- B. Every applicant will be required to complete an application that will be made available by the sponsor.
- C. Completed applications will be checked for minimum qualifications. Applicants deficient in one or more qualifications or requirements or making false statements on their applications will be disqualified and no further processing of such application will be taken.
- D. Applicants who meet the minimum qualifications and submit the required documents [valid state ID, social security card, etc.] will be entered into the pool of eligible applicants.
- E. Applicants will have the opportunity to review the standards, the sponsor's written rules and policies, and the apprenticeship agreement during the application process and prior to joining the program.
- F. Employers with signed Employer Acceptance Agreements will have access to the pool of eligible applicants, including the documentation outlined above. Employers may conduct interviews and internal human resources procedures prior to an offer of employment. Employers will inform the sponsor of those who have accepted employment as an apprentice.

SECTION III – DIRECT ENTRY

The sponsor who invokes a direct entry provision may do so without regard to the existing selection procedure or minimum qualifications used for entry into the apprenticeship program. Direct entry shall be done without regard to race, color, religion, national origin, sex (including pregnancy and gender identity), sexual orientation, genetic information, or an individual with a disability or a person 40 years old or older. The methods for direct entry are as follows:

- A. A military veteran who has completed military technical training school and/or participated in a registered apprenticeship program or related occupation while in the military in the occupation registered. Applicants must submit a DD-214 to verify military training and/or experience if they are a veteran and wish to receive consideration for such training/experience. The sponsor, with the assistance of the training provider and employer, will evaluate the training received to grant appropriate credit.
- B. An individual who has completed an AOA certified pre-apprenticeship training program and meets the minimum qualifications of the apprenticeship program. may be admitted directly into the program. The applicant shall provide official



documentation confirming that they fulfilled the specific requirements of the pre-apprenticeship program, such as skills assessments, completion/graduation certificates, and transcripts. The sponsor will evaluate the pre-apprenticeship training received to grant appropriate credit.

C. Individual who is a current employee by an employer with an Employer Acceptance Agreement. The employer will evaluate the current employee's skills to grant appropriate credit.



WORK PROCESS SCHEDULE Electrician

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Work Process Guidelines:

- During the apprenticeship, the apprentice shall receive work experience and jobrelated education in all phases of the occupation, including safe work practices, necessary to develop the skill and proficiency of a skilled professional.
- The program sponsor or its designated apprenticeship committee must ensure apprentices are rotated throughout the various work processes to ensure a well-rounded professional upon completion of the apprenticeship and identify what methodology will be used to track progression of experience on-the-job.
- Such on-the-job learning shall be carried on under the direction and guidance of a qualified professional.

JOB FUNCTION 1: Wiring	1100 Hours
1. Signal wiring	
2. Power wiring	
3. Wire splicing	
4. Equipment wiring	
5. Installation of conductors	
6. Wire sizing	
JOB FUNCTION 2: Control Equipment	500 Hours
1. Install sensors and controls	
2. Repair control wiring	
3. Adjust	
JOB FUNCTION 3: Lighting	700 Hours
1. Layout	
2. Install	
3. Repair	
JOB FUNCTION 4: Installation	1200 Hours

1. Lighting equipment	
2. Ballast	
3. Power equipment	
4. Fuses	
5. Signal equipment	
6. Fluorescent /LED fixtures	
7. Conduit	
8. Panels and switch gears	
9. Receptacles	
10. Switches	
11. Race ways, wire ways, and support	
JOB FUNCTION 5: Electric Motors	650 Hours
1. Install	
2. Repair	
3. Detection of faults	
4. AC variable speed drives	
5. Magnetic starters	
JOB FUNCTION 6: General Maintenance	1400 Hours
1. Appliance repairs, tools etc.	
2. Electrical circuits	
3. Replace fuses, lamps, etc.	
4. Grounding	
5. Troubleshooting	
JOB FUNCTION 7: Electronic Controls and Equipment	1200 Hours
1. Install	
2. Repair	
3. PC controllers	

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		Total Hours	8000
8.	Arc Flash		
	Proper starter procedures		
6.	Lockout tagout		
5.	Lift operation		
4.	Hazardous material handling		
3.	Vessel entry		
2.	Respiratory and personal protective equipment		
1.	Methods and procedures		
JOB F	UNCTION 9: Safety - Electrical		400 Hours
5.	Test equipment training		
4.	Environmental control loops		
3.	3. Digital		
2.	Pneumatic		
1.	Electrical		l
JOB F	UNCTION 8:		850 Hours
	a. Fire alarms b. Lighting controls c. Access control		
	Emergency power Low voltage		
4. 5.	Emergency lighting		
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Related Instruction Guidelines:

- The course listings outline the related instruction that supplements the on-the-job learning. It is through the combination of both the on-the-job learning and the related instruction that the apprentice can reach the skilled level of the occupation.
- Each apprentice's attendance and progress in related education must be tracked and appropriate records maintained.
- Time devoted to the job-related education shall not be considered as part of the onthe-job learning.
- Failure on the part of the apprentice to fulfill their obligation as to the related education and/or attendance, or their failure to maintain passing grades therein, shall constitute adequate cause for cancellation of their Apprenticeship Agreement.

Hours Instruction Provided:□ During Work Hours⊠ During Non-Work Hours□ BothInstruction Method⊠ Classroom□ Correspondence/Shop□ Web-Based Learning

RTI Provider Name: Auburn University Facilities Management Contact Name: Dan Whatley Contact Phone: 334-844-7411 Contact Email: wdw0013@auburn.edu Contact Address: 1161 W Samford Ave Auburn, AL 36849

COURSE	TITLE	SEAT HRS
Core: Introduction to Basic Construction		
Module ID 00100	Build Your Future in Construction	2.5
Module ID 00101	Basic Safety (Construction Site Safety Orientation)	12.5
Module ID 00102	Introduction to Construction Math (10
Module ID 00103	Introduction to Hand Tools	12.5
Module ID 00104	Introduction to Power Tools	10
Module ID 00105	Introduction to Construction Drawings	10
Module ID 00106	Introduction to Basic Rigging	7.5
Module ID 00107	Basic Communication Skills	7.5
Module ID 00108	Basic Employability Skills	7.5
Module ID 00109	Introduction to Materials Handling	5



WEAT SEC	Electrical Level I			
Module ID 26101-20	Occupational Overview: The Electrical Industry	2.5		
Module ID 20101 20 Module ID 26102-20	Safety For Electricians	10		
Module ID 26102-20 Module ID 26103-20	Introduction to Electrical Circuits	7.5		
Module ID 26103-20 Module ID 26104-20	Electrical Theory	7.5		
Module ID 20104-20 Module ID 26105-20	Introduction to the National Electrical Code	7.5		
Module ID 20105-20 Module ID 26106-20	Device Boxes	10		
Module ID 20100-20 Module ID 26107-20	Hand Bending	10		
Module ID 26107-20	Wireways, Raceways, and Fittings	20		
Module ID 26109-20	Conductors and Cables	10		
Module ID 261010-20	Basic Electrical Construction Documents	7.5		
Module ID 26111-20	Residential Wiring	15		
Module ID 26112-20	Electrical Test Equipment	5		
	Electrical Level 2			
Module ID 26201-20	Alternating Current	17.5		
Module ID 26202-20	Motors: Theory and Application	20		
Module ID 26203-20	Electric Lighting	15		
Module ID 26204-20	Conduit Bending	15		
Module ID 26205-20	Pull and Junction Boxes	12.5		
Module ID 26206-20	Conductor Installations (10		
Module ID 26207-20	Cable Tray	7.5		
Module ID 26208-20	Conductor Terminations and Splices	7.5		
Module ID 26209-20	Grounding and Bonding	15		
Module ID 26210-20	Circuit Breakers and Fuses	12.5		
Module ID 26211-20	Control Systems and Fundamental Concepts	12.5		
	Electrical Level 3			
Module ID 26301-20	Load Calculations — Branch and Feeder Circuits	17.5		
Module ID 26302-20	Conductor Selection and Calculations	15		
Module ID 26303-20	Practical Applications of Lighting	12.5		
Module ID 26304-20	Hazardous Locations	15		
Module ID 26305-20	Overcurrent Protection	25		
Module ID 26306-20	Distribution Equipment	12.5		
Module ID 26307-20	Transformers	12.5		
Module ID 26308-20	Commercial Electrical Services	10		
Module ID 26309-20	Motor Calculations	12.5		
Module ID 26310-20	Voice, Data, & Video	10		
Module ID 26311-20	Motor Controls	12.5		
	Electrical Level 4			
Module ID 26401-20	Load Calculations — Feeders & Services	20		
Module ID 26402-20	Health Care Facilities	10		
Module ID 26403-20	Standby and Emergency Systems	10		
Module ID 26404-20	Basic Electronic Theory	10		
Module ID 26405-20	Fire Alarm Systems	15		
Module ID 26406-20	Specialty Transformers	10		
Module ID 26407-20	Advanced Controls	20		
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	TOTAL HOURS	752.5
Module ID 46101	Fundamentals of Crew Leadership	22.5
Module ID 26412-20	Special Locations	20
Module ID 26411-20	Medium-Voltage Terminations/Splices	10
Module ID 26410-20	Motor Operation and Maintenance	10
Module ID 26409-20	Heat Tracing and Freeze Protection	10
Module ID 26408-20	HVAC Controls	15
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