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**APPRENTICESHIP PROGRAM STANDARDS  
adopted by**

**FREDERICKSON ELECTRIC TRAINING ACADEMY**

(sponsor name)

Occupational Objective(s):  
**GENERAL ELECTRICIAN (01)**

SOC#  
**47-2111.00**

Term [WAC 296-05-015]  
**8000 HOURS**



**APPROVED BY**  
**Washington State Apprenticeship and Training Council**  
**REGISTERED WITH**  
**Apprenticeship Section of Fraud Prevention and Labor Standards**  
Washington State Department Labor and Industries  
Post Office Box 44530  
Olympia, Washington 98504-4530

**APPROVAL:**

\_\_\_\_\_  
Provisional Registration

\_\_\_\_\_  
Standards Last Amended

\_\_\_\_\_  
Permanent Registration

By: \_\_\_\_\_  
Chair of Council

By: \_\_\_\_\_  
Secretary of Council

## INTRODUCTION

This document is an apprenticeship program standard. Apprenticeship program standards govern how an apprenticeship works and have specific requirements. This document will explain the requirements.

The director of the Department of Labor and Industries (L&I) appoints the Washington State Apprenticeship and Training Council (WSATC) to regulate apprenticeship program standards. The director appoints and deputizes an assistant director to be known as the supervisor of apprenticeship who oversees administrative functions through the apprenticeship section at the department.

The WSATC is the sole regulatory body for apprenticeship standards in Washington. It approves, administers, and enforces apprenticeship standards, and recognizes apprentices when either registered with L&I's apprenticeship section, or under the terms and conditions of a reciprocal agreement. WSATC also must approve any changes to apprenticeship program standards.

Apprenticeship programs have sponsors. A sponsor operates an apprenticeship program and declares their purpose and policy herein to establish an organized system of registered apprenticeship education and training. The sponsor recognizes WSATC authority to regulate and will submit a revision request to the WSATC when making changes to an apprenticeship program standard.

Apprenticeships are governed by federal law (29 U.S.C 50), federal regulations (29 CFR Part 29 & 30), state law (49.04 RCW) and administrative rules (WAC 296-05). These standards conform to all of the above and are read together with federal and state laws and rules

Standards are changed with WSATC approval. Changes are binding on apprentices, sponsors, training agents, and anyone else working under an agreement governed by the standards. Sponsors may have to maintain additional information as supplemental to these standards. When a standard is changed, sponsors are required to notify apprentices and training agents. If changes in federal or state law make any part of these standards illegal, the remaining parts are still valid and remain in force. Only the part made illegal by changes in law is invalid. L&I and the WSATC may cooperate to make corrections to the standards if necessary to administer the standards.

Sections of these standards identified as bold "**insert text**" fields are specific to the individual program standards and may be modified by a sponsor submitting a revised standard for approval by the WSATC. All other sections of these standards are boilerplate and may only be modified by the WSATC. See WAC 296-05-003 for the definitions necessary for use with these standards.

\*All sponsor inserted language must meet or exceed minimum requirements as established by the appropriate occupations outlined in these standards for each occupation. Minimum Guideline requirements have been *emboldened, italicized* and captured in bordering and may not be revised.

**FREDERICKSON ELECTRIC TRAINING ACADEMY**

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Sponsor Introductory Statement (Required):

**The mission of Frederickson Electric Training Academy is to cultivate the next generation of highly skilled and safety-conscious electricians. We provide comprehensive training, mentorship, and hands-on experience to empower apprentices to excel in the electrical industry and contribute to building safer, more sustainable communities.**

**The core values of Frederickson Electric Training Academy are safety, professionalism, teamwork, and continuous learning.**

**I. GEOGRAPHIC AREA COVERED:**

The sponsor must train inside the area covered by these standards. If the sponsor wants to train outside the area covered by these standards, the sponsor must enter a portability agreement with a sponsor outside the area, and provide evidence of such an agreement for compliance purposes. Portability agreements permit training agents to use apprentices outside the area covered by the standards. Portability agreements are governed by WAC 296-05-009.

**These standards cover the following Counties:**

**Jefferson, Clallam, Island, Kitsap, Mason**

**II. MINIMUM QUALIFICATIONS:**

Minimum qualifications must be clearly stated and applied in a nondiscriminatory manner [WAC 296-05-015(17)].

Age: <i>18 Years Old</i>
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Education: <b><u>General Electrician (01)</u></b> <i>Must be a high school graduate from a school accredited by a State Education Agency; or have a GED; or have completed a High School Equivalency; or have completed an Associate degree or higher from a school accredited by a State Education Agency; and</i>  <i>Show evidence of successful completion of: 1 full year of high school Algebra with a passing grade of “C” or better.</i>  <i>Applicants who have not completed one full year of high school algebra with a passing grade of “C” or better, may qualify under one of the following:</i>
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1. *Equivalent post high school algebra course(s) with a grade of “C” or better.*
2. *Current math placement results from a community college facility indicating a placement level beyond high school level algebra.*
3. *Provide certificate of completion from a committee approved online tech math course.*

Physical: *Physically and mentally able to safely perform or learn to safely perform essential functions of the job with or without reasonable accommodations.*

Testing: **None**

Other: **None**

**III. CONDUCT OF PROGRAM UNDER WASHINGTON EQUAL EMPLOYMENT OPPORTUNITY PLAN:**

Sponsors with five (5) or more apprentices must adopt an Equal Employment Opportunity (EEO) Plan and Selection Procedure (chapter 296-05 WAC and 29 CFR Part 30).

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, sex (including pregnancy and gender identity), sexual orientation, color, religion, national origin, age, genetic information, disability or as otherwise specified by law. The sponsor shall take positive action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required by the rules of the Washington State Apprenticeship and Training Council and Title 29, Part 30 of the Code of Federal Regulations.

A. Selection Procedures:

**Exempt per WAC 296-05-405(1)(a)**

B. Equal Employment Opportunity Plan:

**Exempt per WAC 296-05-405(1)(a)**

C. Discrimination Complaints:

Any apprentice or applicant for apprenticeship who believes they have been discriminated against may file a complaint with the supervisor of apprenticeship (WAC 296-05-443).

**IV. TERM OF APPRENTICESHIP:**

The term of apprenticeship for an individual apprentice may be measured through the completion of the industry standard for on-the-job learning (at least two thousand hours) (time-based approach), the attainment of competency (competency-based approach), or a blend of the time-based and competency-based approaches (hybrid approach) [WAC 296-05-015].

**A. General Electrician (01)  
*8000 Hours of reasonably continuous employment***

**V. INITIAL PROBATIONARY PERIOD:**

An initial probationary period applies to all apprentices, unless the apprentice has transferred from another program. During an initial probationary period, an apprentice can be discharged without appeal rights. An initial probationary period is stated in hours or competency steps of employment. The initial probationary period is not reduced by advanced credit or standing. During an initial probationary period, apprentices receive full credit for hours and competency steps toward completion of their apprenticeship. Transferred apprentices are not subject to additional initial probationary periods [WAC 296-05-003].

The initial probationary period is [WAC 296-05-015(22)]:

- A. The period following the apprentice's registration into the program. An initial probationary period must not be longer than twenty percent of the term of the entire apprenticeship, or longer than a year from the date the apprenticeship is registered. The WSATC can grant exemptions for longer initial probationary periods if required by law.
- B. The period in which the WSATC or the supervisor of apprenticeship may terminate an apprenticeship agreement at the written request by any affected party. The sponsor or the apprentice may terminate the agreement without a hearing or stated cause. An appeal process is not available to apprentices in their initial probationary period.

C.

**1. General Electrician (01)  
*The first one thousand-six hundred (1,600) hours of employment shall constitute the initial probationary period or one year from date of registration, whichever***

*occurs first.*

**VI. RATIO OF APPRENTICES TO JOURNEY LEVEL WORKERS**

Supervision is the necessary education, assistance, and control provided by a journey-level employee on the same job site at least seventy-five percent of each working day, unless otherwise approved by the WSATC. Sponsors ensure apprentices are supervised by competent, qualified journey-level employees. Journey level-employees are responsible for the work apprentices perform, in order to promote the safety, health, and education of the apprentice.

- A. The journey-level employee must be of the same apprenticeable occupation as the apprentice they are supervising unless as noted above or otherwise allowed by the Revised Code of Washington (RCW) or the Washington Administrative Code (WAC) and approved by the WSATC.
- B. The numeric ratio of apprentices to journey-level employees may not exceed one apprentice per journey-level worker [WAC 296-05-015(5)].
- C. Apprentices will work the same hours as journey-level workers, except when such hours may interfere with related/supplemental instruction.
- D. Any variance to the rules and/or policies stated in this section must be approved by the WSATC.
- E. The ratio must be described in a specific and clear manner, as to the application in terms of job site, work group, department or plant:

**1. General Electrician (01)**

*The employer is allowed a ratio of one (1) apprentice to one (1) journey-level worker per job site, unless one of the following conditions is met:*

*No more than two apprentices for every journey level Residential (02) or Limited Energy (06) specialty electrician when working in that electrician's specialty.*

*Apprentices with a minimum of 7,000 hours of OJT will be allowed to work without the direct supervision of a journey-level person provided that they have been issued a six- month, nonrenewable, unsupervised electrical training*

*certificate by the Washington State Labor and Industries Electrical Section. Such apprentices will not be counted for the purposes of a ratio calculation nor be allowed to supervise other apprentices.*

*Supervision and Ratio of apprentices registered in the above occupations shall follow requirements established under RCW 19.28.161.*

**VII. APPRENTICE WAGES AND WAGE PROGRESSION:**

- A. Apprentices must be paid at least Washington’s minimum wage, unless a local ordinance or a collective bargaining agreement require a higher wage. Apprentices must be paid according to a progressively increasing wage scale. The wage scale for apprentices is based on the specified journey-level wage for their occupation. Wage increases are based on hours worked or competencies attained. The sponsor determines wage increases. Sponsors must submit the journey-level wage at least annually or whenever changed to the department as an addendum to these standards. Journey-level wage reports may be submitted on a form provided by the department. Apprentices and others should contact the sponsor or the Department for the most recent Journey-level wage rate.
  
- B. Sponsors can grant advanced standing, and grant a wage increase, when apprentices demonstrate abilities and mastery of their occupation. When advanced standing is granted, the sponsor notifies the employer/training agent of the wage increase the apprenticeship program standard requires.
  
- C. Wage Progression Schedules

**1. General Electrician (01)**

Step	Hour Range or competency step	Percentage of journey-level wage rate
<b>1</b>	<b>0000-1000 hours</b>	<b>50%</b>
<b>2</b>	<b>1001-2000 hours</b>	<b>55%</b>
<b>3</b>	<b>2001-3000 hours</b>	<b>60%</b>
<b>4</b>	<b>3001-4000 hours</b>	<b>65%</b>
<b>5</b>	<b>4001-5000 hours</b>	<b>70%</b>
<b>6</b>	<b>5001-6000 hours</b>	<b>75%</b>
<b>7</b>	<b>6001-7000 hours</b>	<b>80%</b>
<b>8</b>	<b>7001-8000 hours</b>	<b>85%</b>



*General Electrician (01) apprentices shall not be paid less than the progressive scale identified within this section regardless the scope of work being performed.*

**VIII. WORK PROCESSES:**

The apprentice shall receive on the job instruction and work experience as is necessary to become a qualified journey-level worker versed in the theory and practice of the occupation covered by these standards. The following is a condensed schedule of work experience, which every apprentice shall follow as closely as conditions will permit. The following work process descriptions pertain to the occupation being defined.

**A. General Electrician (01)**

In no case shall:

1. The term of apprenticeship be less than 8000 hours, or
2. Work hours in electrical specialty occupations, such as the residential (02) or limited energy (06) specialties, be more than 4000 cumulative hours for the term of apprenticeship, or
3. Commercial and industrial work hours be less than 4000 cumulative hours for the term of apprenticeship, or
4. Department credited work experience in electrical specialties with less than a 4000 hour experience requirement be credited toward apprenticeship completion.  
PerWAC296-46B-945 Table 945-1 Note 6.

<u><i>General Electrician (01)</i></u>	<u><i>Approximate Hours/Competency Level</i></u>
<p><b><i>1. COMMERCIAL-wiring of public commercial, school and hospital buildings; the installation and repair of all equipment therein; and necessary pre-fabrication and preparation</i></b>  <b><i>INDUSTRIAL-wiring of all industrial buildings and equipment; the maintenance, repair, and alteration of the same; and necessary pre-fabrication and preparation</i></b></p>	<p><b><i>*No less than 4000 Hours*</i></b></p>
<p><b><i>2. RESIDENTIAL-wiring of residences, duplexes, and small apartment buildings and necessary</i></b></p>	

<i>pre-fabrication and preparation</i>	<i>*No more than 4000 Hours*</i>
<i>SPECIALIZED SYSTEMS-wiring of systems which include; sound, data transmission, telephone, fire alarm, fiber optics, energy management, closed circuit television programmable controllers, and nurse call systems</i>	
<i>Total Hours/# of Competency Levels:</i>	<i>8000</i>

**IX. RELATED/SUPPLEMENTAL INSTRUCTION:**

The apprentice must attend related/supplemental instruction (RSI). Time spent in RSI shall not be considered as hours of work and the apprentice is not required to be paid.

RSI must be provided in safe and healthy conditions as required by the Washington Industrial Safety and Health Act and applicable federal and state regulations.

Hours spent in RSI are reported to L&I each quarter. Reports must show which hours are unpaid and supervised by a competent instructor versus all other hours (paid and/or unsupervised) for industrial insurance purposes.

For purposes of coverage under the Industrial Insurance Act, the WSATC is an employer and the apprentice is an employee when an unpaid, supervised apprentice is injured while under the direction of a competent instructor and participating in RSI activities.

If apprentices do not attend required RSI, they may be subject to disciplinary action by the sponsor.

A. The methods of related/supplemental training must be indicated below (check those that apply):

- Supervised field trips
- Sponsor approved training seminars (specify)
- Sponsor approved online or distance learning courses (specify)
- State Community/Technical college
- Private Technical/Vocational college

FREDERICKSON ELECTRIC TRAINING ACADEMY

Sponsor Provided (lab/classroom)

Other (specify)

B. **(144)** Minimum RSI hours per year defined per the following [see WAC 296-05-015(6)]:

Twelve-month period from date of registration.\*

Defined twelve-month school year: Q through Q.

Two-thousand hours of on the job training.

*\*If no selection is indicated above, the WSATC will define RSI hours per twelve-month period from date of registration.*

C. Additional Information:

**1. General Electrician (01)**

*The 144 hours identified above shall be 144 hours/year of competent instructor led classroom instruction (“must” include lab or hands-on instruction)*

- This requirement includes a minimum of 720 RSI hours over the term of apprenticeship under the same conditions.*
- On-line would not be excluded as a delivery method but could only be offered for hours over the 144 annual minimum/720 cumulative total.*

**1. Frederickson Electric Training Academy will ensure that we have suitable Instructors whose knowledge, experience, and ability to teach will be monitored. All Instructors shall be qualified in or take the instructor training courses covering teaching techniques and adult learning styles.**

**2. RSI will take place at the Frederickson Electric Training Academy building located at 402 Glen Cove Road, Port Townsend, WA 98368.**

**3. Training materials and textbooks for the Mike Holt apprenticeship curriculum will be provided by Frederickson Electric Training Academy for classroom instruction.**

*RSI plans shall be updated by the sponsor every five years or as requested by the department to ensure compliance with these standards.*

*Competent Instructor qualifications shall include the following:*

- *Meets requirements of WAC 296-05-003, excluding the Journey Level Experience requirement*
- *Meets requirements of WAC 296-46B-970, excluding the following; ○ Manufacturer/Vendor representative when not accompanied by Competent Instructor ○ Electrical Administrator with no Journey level trade qualification*

**X. ADMINISTRATIVE/DISCIPLINARY PROCEDURES:**

A. Administrative Procedures:

The sponsor may include in this section a summary and explanation of administrative actions performed at the request or on the behalf of the apprentice. Such actions may include but are not limited to:

1. Voluntary Suspension: A temporary interruption in progress of an individual's apprenticeship agreement at the request of the apprentice and granted by the sponsor. The program sponsor shall review apprentices in suspended status at least once each year to determine if the suspension is still appropriate.
2. Advanced Standing or Credit: The sponsor may provide for advanced standing or credit for demonstrated competency, acquired experience, training or education in or related to the occupation. All sponsors need to ensure a fair and equitable process is applied to all apprentices seeking advanced standing or credit per WAC 296-05-015(11).
3. Sponsor Procedures:
  - a. **Frederickson Electric Training Academy Committee may allow individuals with prior education and/or training to test out of or transfer related courses. The Committee has created a non-discriminatory policy adopting uniform written and proficiency-based tests to be used to determine whether to award credit and waive specific course(s), or area(s) of training.**
  - b. **All apprentices are required to have transportation to and from work, required classes/training, and any scheduled labs.**
  - c. **Individuals are required to maintain a valid driver license throughout the duration of the apprenticeship.**
  - d. **Requirements for advancement are:**
    1. **Attend RSI classes and labs**
    2. **Maintain 70% average grade for classes and labs**
    3. **Report OJT hours**

**4. Receive satisfactory or better performance reviews**

- e. During work hours, apprentices shall carry on their person a current Electrical Trainee Certificate and their registered Apprenticeship Credentials. It is the responsibility of the Apprentices to provide Frederickson Electric Training Academy with a copy of their current Trainee/Apprentice Credentials upon request. All Apprentices are responsible for payment for their trainee card and renewal fees.**
- f. Apprentices must report their OJT and RSI hours to the sponsor either in person at the Frederickson Electric Training Academy office or by emailing them to [training@fredelectric.com](mailto:training@fredelectric.com) no later than the 1<sup>st</sup> of each month for the previous month worked. All submitted RSI hours will be reviewed and verified by the RSI Training Instructor.**
- g. Immediately following class reviews of completed tests, the instructor will collect and submit all tests and materials to the Training Director for proper filing. No completed tests or test materials will be left in the hands of the apprentices.**
- h. Apprentice performance reviews will be done at a minimum of bi-annually to evaluate their progress. These reviews will be conducted by the supervising Journeyman and/or the Apprentice's direct manager.**
- i. In the event an Apprentice is laid-off due to lack of work, they will be permitted to continue in the Related Supplemental Instruction for at least six months while on layoff status.**
- j. Within 30 days of competing the OJT and RSI requirements of their program, General Electrician (01) apprentices are required to make application to the Electrical Section to take the appropriate certificate of competency examination. Apprentices are required to take the examination withing 30 days of being approved for examination by the Electrical Section and to immediately furnish the Committee with the results of their examination. An apprentice who fails the examination will be required to engage in additional study as determined by the committee and to retake and pass the examination withing 180 days of completing their OJT and RSI requirements.**

**B Disciplinary Procedures**

- 1. The obligations of the sponsor when taking disciplinary action are as follows:
  - b. The sponsor shall be responsible for enacting reasonable policies and procedures and applying them consistently. The sponsor will inform all apprentices of their rights and responsibilities per these standards.

- c. The sponsor shall notify the apprentice of intent to take disciplinary action and reasons therefore 20 calendar days prior to taking such action. The reason(s) supporting the sponsor's proposed action(s) must be sent in writing to the apprentice.
  - d. The sponsor must clearly identify the potential outcomes of disciplinary action, which may include but are not limited to discipline, suspension or cancellation of the apprenticeship agreement.
  - e. The decision/action of the sponsor will become effective immediately.
2. The sponsor may include in this section requirements and expectations of the apprentices and an explanation of disciplinary actions imposed for noncompliance. The sponsor has the following disciplinary procedures to adopt:
- a. Disciplinary Probation: A time assessed when the apprentice's progress is not satisfactory. During this time the sponsor may withhold periodic wage advancements, suspend or cancel the apprenticeship agreement, or take further disciplinary action. A disciplinary probation may only be assessed after the initial probation is complete.
  - b. Disciplinary Suspension: A temporary interruption in the progress of an individual's apprenticeship agreement. Conditions will include not being allowed to participate in On-the-Job Training (OJT), go to Related Supplemental Instruction (RSI) classes or take part in any activity related to the Apprenticeship Program until such time as the sponsor takes further action. The program sponsor shall review apprentices in such status at least once each year.
  - c. Cancellation: Refers to the termination of an apprenticeship agreement at the request of the apprentice, supervisor, or sponsor. [WAC 296-05-003].
3. Sponsor Disciplinary Procedures:

**a. Failure to maintain employment with Frederickson Electric, Inc. may result in cancellation of the Apprenticeship Agreement.**

**b. Apprentices are required to attend the mandatory scheduled classes. Apprentices who have more than 2 unexcused absences will be called before the committee and may face disciplinary action up to and including cancellation of the Apprenticeship Agreement.**

**An excused absence must meet one of the following conditions:**

- 1. Anything covered/protected under the WA Family Leave Act**
- 2. ER visit for self or an immediate family member**
- 3. Funeral for immediate family member**
- 4. Jury Duty**
- 5. Medical Restriction**

**6. Military Service**

- i. Apprentices who do not complete related instruction will not be able to advance to the next course until the insufficiencies have been met at the convenience of the instructor.**
  
- c. Apprentices who are caught in the act of plagiarism or cheating will be called before the Committee and face disciplinary action, up to and including cancellation of the Apprenticeship Agreement.**
  
- d. Apprentices that are unable to maintain at least a 70% GPA will be called before the Committee and may face disciplinary action up to and including cancellation of the Apprenticeship Agreement.**
  
- e. Frederickson Electric Training Academy will not tolerate any form of harassment including but not limited to unwelcome or unsolicited verbal, physical or sexual conduct which create an intimidating, offensive, or hostile environment. The Committee will promptly investigate and act upon all charges of harassment, maintaining confidentiality of the report and person(s) involved.**
  
- f. Apprentices who are required to appear before the committee will be given written notice at least twenty (20) days prior to their requested appearance.**
  
- g. If an apprentice fails to respond and/or appear before the committee after due notice, disciplinary action, up to and including cancellation of the Apprenticeship Agreement, may be invoked in the Apprentice's absence.**

**C. Apprentice Complaint Procedures:**

1. The apprentice must complete his/her initial probationary period in order to be eligible to file a complaint (WAC 296-05-105).
  
2. Complaints involving matters covered by a collective bargaining agreement are not subject to the complaint procedures in this section.
  
3. Complaints regarding non-disciplinary matters must be filed with the program sponsor within 30 calendar days from the date of the last occurrence. Complaints must be in writing.
  
4. If the apprentice disagrees with the resolution of the complaint or wishes to contest the outcome of a disciplinary action by the program sponsor, the apprentice must file a written request for reconsideration with the program sponsor within 30 calendar days from the date the apprentice received written notice of action by the program sponsor.

5. The program sponsor must reply, in writing, to the request for reconsideration within 30 calendar days from the date the program sponsor receives the request. The program sponsor must send a copy of the written reply to the apprentice within the 30 calendar days.
6. If the apprentice disagrees with the program sponsor's decision, the apprentice may file an appeal with the Apprenticeship Program, (WAC 296-05-105). If the apprentice does not timely file an appeal, the decision of the program sponsor is final after 30 calendar days from the date the program sponsor mails the decision to the apprentice. See section "D" below.

**D. Apprentice Complaint Review/Appeals Procedures:**

1. If the apprentice disagrees with the program sponsor's decision, the apprentice must submit a written appeal to L&I's apprenticeship section within 30 calendar days from the date the decision is mailed by the program sponsor. Appeals must describe the subject matter in detail and include a copy of the program sponsor's decision.
2. The L&I apprenticeship section will complete its investigation within 30 business days from the date the appeal is received and attempt to resolve the matter.
3. If the Apprenticeship section is unable to resolve the matter within 30 business days, the Apprenticeship section issues a written decision resolving the appeal.
4. If the apprentice or sponsor is dissatisfied with L&I's decision, either party may request the WSATC review the decision. Requests for review to the WSATC must be in writing. Requests for review must be filed within 30 calendar days from the date the decision is mailed to the parties.
5. The WSATC will conduct an informal hearing to consider the request for review.
6. The WSATC will issue a written decision resolving the request for review. All parties will receive a copy of the WSATC's written decision.

**XI. SPONSOR – RESPONSIBILITIES AND GOVERNING STRUCTURE**

The following is an overview of the requirements associated with administering an apprenticeship program. These provisions are to be used with the corresponding RCW and/or WAC. The sponsor is the policymaking and administrative body responsible for the operation and success of this apprenticeship program. The sponsor may assign an administrator or a committee to be responsible for day-to-day operations of the apprenticeship program. Administrators and/or committee members must be knowledgeable in the process of apprenticeship and/or the application of chapter 49.04 RCW and chapter 296-05 WAC and these standards. If applicable, sponsors must develop procedures for:



## FREDERICKSON ELECTRIC TRAINING ACADEMY

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- A. Committee Operations (WAC 296-05-009): (Not applicable for Plant Programs)  
Apprenticeship committees must be composed of an equal number of management and non-management representatives from a minimum of four to a maximum of twelve members. Committees must convene meetings at least three times per year attended by a quorum of committee members as defined in these approved standards.

B. Program Operations

The sponsor will record and maintain records pertaining to the administration of the apprenticeship program and make them available to the WSATC or Department upon request. Records required by WAC 296-05-100 will be maintained for five (5) years; all other records will be maintained for three (3) years. Apprenticeship sponsors will submit required forms/reports to the Department of Labor and Industries through one of the two prescribed methods below:

Sponsors shall submit required reports through assigned state apprenticeship consultant.

Sponsors shall submit required forms/reports through the Apprentice Registration and Tracking System (ARTS).

1. The following is a listing of forms/reports for the administration of apprenticeship programs and the time-frames in which they must be submitted:
  - a. Apprenticeship Agreements – within first 30 days of employment
  - b. Authorization of Signature forms - as necessary
  - c. Approved Training Agent Agreements– within 30 days of sponsor action
  - d. Minutes of Apprenticeship Committee Meetings – within 30 days of sponsor approval (not required for Plant program)
  - f. Request for Change of Status - Apprenticeship/Training Agreement and Training Agents forms – within 30 days of action by sponsor.
  - g. Journey Level Wage Rate – annually, or whenever changed as an addendum to section VII. Apprentice Wages and Wage Progression.
  - h. Related Supplemental Instruction (RSI) Hours Reports (Quarterly):
    - 1st quarter: January through March, due by April 10
    - 2nd quarter: April through June, due by July 10
    - 3rd quarter: July through September, due by October 10
    - 4th quarter: October through December, due by January 10
  - i. On-the-Job Work Hours Reports (bi-annual)
    - 1st half: January through June, by July 30
    - 2nd half: July through December, by January 31
2. The program sponsor will adopt, as necessary, local program rules or policies to administer the apprenticeship program in compliance with these standards. Requests for revision to these standards of apprenticeship must be submitted 45 calendar days prior to a quarterly WSATC meeting. The Department of Labor and Industries, Apprenticeship Section’s manager may administratively approve requests for revisions in the following areas of the standards:

- a. Program name
  - b. Sponsor's introductory statement
  - c. Section III: Conduct of Program Under Washington Equal Employment Opportunity Plan
  - d. Section VII: Apprentice Wages and Wage Progression
  - e. Section IX: Related/Supplemental Instruction
  - f. Section XI: Sponsor – Responsibilities and Governing Structure
  - g. Section XII: Subcommittees
  - h. Section XIII: Training Director/Coordinator
3. The sponsor will utilize competent instructors as defined in WAC 296-05-003 for RSI. Furthermore, the sponsor will ensure each instructor has training in teaching techniques and adult learning styles, which may occur before or within one year after the apprenticeship instructor has started to provide instruction.

C. Management of Apprentices:

1. Each apprentice (and, if under 18 years of age, the parent or guardian) will sign an apprenticeship agreement with the sponsor, who will then register the agreement with the Department before the apprentice attends RSI classes, or within the first 30 days of employment as an apprentice. For the purposes of industrial insurance coverage and prevailing wage exemption under RCW 39.12.021, the effective date of registration will be the date the agreement is received by the Department.
2. The sponsor must notify the Department within 30 days of all requests for disposition or modification to apprentice agreements, which may include:
  - a) Certificate of completion
  - b) Additional credit
  - c) Suspension (i.e. military service or other)
  - d) Reinstatement
  - e) Cancellation
  - f) Corrections
  - g) Step Upgrades
  - h) Probation Completion date
  - i) Other (i.e., name changes, address)
  - j) Training Agent Cancellation
3. The sponsor commits to rotate apprentices in the various processes of the skilled occupation to ensure the apprentice is trained to be a competent journey-level worker.
4. The sponsor shall periodically review and evaluate apprentices before advancement to the apprentice's next wage progression period. The evidence of such advancement will be the record of the apprentice's progress on the job and during related/supplemental instruction.

5. The sponsor has the obligation and responsibility to provide, insofar as possible, reasonably continuous employment for all apprentices in the program. The sponsor may arrange to transfer an apprentice from one training agent to another or to another program when the sponsor is unable to provide reasonably continuous employment, or they are unable to provide apprentices the diversity of experience necessary for training and experience in the various work processes as stated in these standards. The new training agent will assume all the terms and conditions of these standards. If, for any reason, a layoff of an apprentice occurs, the apprenticeship agreement will remain in effect unless canceled by the sponsor.
6. An apprentice who is unable to perform the on-the-job portion of apprenticeship training may, if the apprentice so requests and the sponsor approves, participate in related/supplemental instruction, subject to the apprentice obtaining and providing to the sponsor written requested document/s for such participation. However, time spent will not be applied toward the on-the-job portion of apprenticeship training.
7. The sponsor shall hear and decide all complaints of violations of apprenticeship agreements.
8. Upon successful completion of apprenticeship, as provided in these standards, and passing the examination that the sponsor may require, the sponsor will recommend the WSATC award a Certificate of Completion of Apprenticeship. The sponsor will make an official presentation to the apprentice who has successfully completed his/her term of apprenticeship.

D. Training Agent Management:

1. The sponsor shall offer training opportunities for apprentices by ensuring reasonable and equal working and training conditions are applied uniformly to all apprentices. The sponsor shall provide training at an equivalent cost to that paid by other employers and apprentices participating in the program. The sponsor shall not require an employer to sign a collective bargaining agreement as a condition of participation.
2. The sponsor must determine whether an employer can adequately furnish proper on the job training to an apprentice in accordance with these standards. The sponsor must also require any employer requesting approved training status to complete an approved training agent agreement and to comply with all federal and state apprenticeship laws, and these standards.
3. The sponsor will submit training agent agreements to the Department with a copy of the agreement and/or the list of approved training agents within thirty calendar days from the effective date. Additionally, the sponsor must submit rescinded training agent agreements to the Department within thirty calendar days of said action.

E. Committee governance (if applicable): (see WAC 296-05-009)

**FREDERICKSON ELECTRIC TRAINING ACADEMY**

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1. Apprenticeship committees shall elect a chairperson and a secretary who shall be from opposite interest groups, i.e., chairperson-employers; secretary-employees, or vice versa. If the committee does not indicate its definition of quorum, the interpretation will be “50% plus 1” of the approved committee members. The sponsor must also provide the following information:

a. Quorum: **A quorum shall consist of 4 members minimum with equal representation from employee and employer representatives.**

b. Program type administered by the committee: **Individual Non-Joint**

c. The employer representatives shall be:

**Hans Frederickson, Chair**

**402 Glen Cove Road**

**Port Townsend, WA 98368**

**Maria Frederickson**

**402 Glen Cove Road**

**Port Townsend, WA 98368**

d. The employee representatives shall be:

**Eugene Africa**

**402 Glen Cove Road**

**Port Townsend, WA 98368**

**Jeff Purkey, Secretary**

**402 Glen Cove Road**

**Port Townsend, WA 98368**

F. Plant programs

For plant programs the WSATC or the Department designee will act as the apprentice representative. Plant programs shall designate an administrator(s) knowledgeable in the process of apprenticeship and/or the application of chapter 49.04 RCW and chapter 296-05 WAC and these standards.

The designated administrator(s) for this program is/are as follows:

N/A

**XII. SUBCOMMITTEE:**

Subcommittee(s) approved by the Department, represented equally from management and non-management, may also be established under these standards, and are subject to the main committee. All actions of the subcommittee(s) must be reviewed by the main committee. Subcommittees authorized to upgrade apprentices and/or conduct disciplinary actions must be structured according to the same requirements for main committees.

N/A

**XIII. TRAINING DIRECTOR/COORDINATOR:**

The sponsor may employ a person(s) as a full or part-time training coordinator(s)/ training director(s). This person(s) will assume responsibilities and authority for the operation of the program as are delegated by the sponsor.

**Michael Gallant – Training Director  
402 Glen Cove Road  
Port Townsend WA 98368**

*\*Must be designated by the sponsor for electrical training programs*

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*Christina Chance 6/3/2024*  
L&I Apprenticeship Consultant

*Teri Gardner 6-3-24*  
L&I Admin

Department of Labor and Industries  
Apprenticeship Section  
PO Box 44530  
Olympia WA 98504-4530



# Apprenticeship Related/Supplemental Instruction (RSI) Plan Review

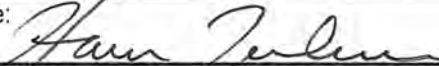

Program Name Frederickson Electric Training Academy	
Occupation General Electrician (01)	
Term/OJT Hours 8000	Total RSI Hours 720
Training Provider Frederickson Electric Training Academy Curriculum: Mike Holt Enterprises	

By the signature placed below, the **program sponsor** agrees to provide the prescribed RSI for each registered apprentice and assures that:


1. The RSI content and delivery method is and remains reasonably consistent with the latest occupational practices, improvements, and technical advances.
2. The RSI is coordinated with the on-the-job work experience.
3. The RSI is provided in safe and healthful work practices in compliances with WISHA and applicable federal and state regulations.
4. The RSI Plan is maintained, updated and submitted to the Department a minimum of once every 5 years (WSATC Policy 2015-01; rev, 10-21-21).
5. The RSI will be conducted by instructors who meet the qualification of the "competent instructor" as described in WAC 296-05-003:
  - a. Has demonstrated a satisfactory employment performance in her/her occupation for a minimum of three years beyond the customary learning period for that occupation; and
  - b. Meets the State Board for Community and Technical Colleges requirements for a professional technical instructor (see WAC 131-16-080 through -094), or be a subject matter expert, which is an individual, such as a journey worker, who is recognized within the industry as having expertise in a specific occupation; and
  - c. Has training in teaching techniques and adult learning styles, which may occur before or within one year after the apprenticeship instructor has started to provide the related technical instruction.
6. If using alternative forms of instruction, such as correspondence, electronic media, or other self-study, instruction shall be clearly defined.

**Signatures on next page**

**Form must be signed by Committee Chair *and* Secretary or Program's Authorized Signer**


<input checked="" type="checkbox"/> Chair <input type="checkbox"/> Authorized Signer	Date 05-28-2024	<input checked="" type="checkbox"/> Secretary	Date 05-28-2024
Print Name: Hans Frederickson		Print Name: Jeff Purkey	
Signature: 		Signature: 	

**Training Provider Signature**

Approved By (Print Name): Michael Gallant	Title: Training Coordinator
Signature of the Training Provider: 	
Date: 05-28-2024	

If additional training providers are needed, go to page 4.

**SBCTC**

Print Name: Genevieve Howard	Title: Policy Associate
Signature of the Program Administrator: 	
Date: 7/9/2024	
<input checked="" type="checkbox"/> SBCTC recommends approval	<input type="checkbox"/> SBCTC recommends return to sponsor

Program Name Frederickson Electric Training Academy	Occupational Objective General Electrician (01)
--------------------------------------------------------	----------------------------------------------------

**Note:** The description of each element must be in sufficient detail to provide adequate information for review by the SBCTC and Review Committee. To add more elements, click on the plus sign that appears below the "Description of Element/Course" field.

**Describe minimum hours of study per year in terms of (check one):**

- 12-month period from date of registration.  
 Defined 12-month school year.  
 2,000 hours of on-the-job training.

Element/Course: Year 1 Safety & Tools	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: OSHA Construction Safety – PPE, Falls, Ladders, Scaffold, Proper Tool Use	

Element/Course: Year 1 DC Fundamentals	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Matter, Electron Theory, Magnetism, Electromagnetism, Circuitry, Math, Series Circuits, Parallel Circuits, Multi-Wire Circuits, Switching, Ohm's Law	

Element/Course: Year 1 AC Fundamentals	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Electrical Systems, Protection Devices, Alternating Current, Capacitance, Inductance, Power Factor, Efficiency, Motors, Generators, Transformers, Ohm's Law	

Element/Course: Year 1 Digital Multimeter Principles, use of other electrical meters and test equipment	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Safety, Proper Use, Measuring Units, Voltage, Amps, Ohms, Diodes, Peak vs. RMS vs. Average Values. Introduction and use of multimeter and megohmmeter.	

Element/Course: Year 1 NEC	Planned Hours: 24
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Navigating the NEC, Article 90 Introduction, 100 Definitions, 110 Requirements for Electrical Installations, Ground & Bonding. AFCI and GFCI protection requirements. Neutral conductor requirements.	



Element/Course: Year 1 WAC & RCW	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Washington Administrative Code & Revised Code of Washington Arrangement, Titles, Definitions, and Enforcement. Licensing Requirements, Renewals, and Examinations.	

Element/Course: Intro to Low Voltage Cable and Terminations	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Introduction to different types of low voltage cables. Voice/data/video cable identification, installation, and termination techniques. Two hours of hands-on lab exercises, terminating and testing cables.	

Element/Course: Basic Math	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Difference between whole numbers and fractions. How to convert a percentage into a decimal to use as a multiplier. Using Pythagorean theorem.	

Element/Course: Year 1 Labs	Planned Hours: 64
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Proper PPE inspection and use. Ladder inspection and use. Fall protection training. Hand and power tools of the trade. Installing NM cable and other cables in residential applications. Installing residential type electrical boxes and enclosures. Introduction and Installation of basic electrical devices, switches, receptacles, GFCI. Introduction to conduit types and installation.	

Element/Course: Year 2 Safety & Tools	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: OSHA Construction Safety – Electrical Safety, PPE, Confined Space, Emergency Response, Lockout-Tagout, Stored Energy in Tools. Four hours of hands-on lab exercises with PPE and lockout/tagout tools.	

Element/Course: Year 2 AC Fundamentals	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Review AC Fundamentals, Protection Devices, Alternating Current, Capacitance, Inductance, Power Factor, Efficiency, Motors, Generators, Transformers, Multi-Wire Branch Circuits, Parallel, Series and Combination Circuits, Ohm's Law	

Element/Course: Year 2 NEC Calculations	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Conductor properties, insulation, ampacities, sizing. Overcurrent protection sizing for branch circuits, feeders and services. Using ampacity tables, wireway sizing. Temperature and conduit fill adjustment. Ampacity adjustment for different types of cables and wire. Conductor sizing for electric vehicle charging, electric space heaters and other appliances. Transformer overcurrent protection. Sizing conductor and over current devices for motors.	

Element/Course: Year 2 NEC	Planned Hours: 40
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Purpose and Intent of the NEC. Equipment layout for proper work clearances. Grounded conductor and how and when to identify it. AFCI and Gfci requirements for dwelling units. Branch circuit requirements for dwelling units. Dwelling unit receptacle locations. Ground fault protection of equipment. Outdoor installation requirements. Service conductor installation and requirements. Service equipment and disconnect requirements. Overcurrent protection for specific appliances. Different types of overcurrent protection. Uses, requirements and installation of surge protection devices. General requirements for wiring methods and materials. Requirements for cabinets, meter socket enclosures. Outlet, device, pull and splice boxes, conduit bodies and hand hole enclosures. Requirements for different types of cables and raceways.	

Element/Course: Year 2 WAC & RCW	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Washington Administrative Code & Revised Code of Washington Arrangement, Titles, Definitions, and Enforcement.	

Element/Course: Year 2 Labs	Planned Hours: 64
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Frederickson Electric Training Academy	
Description of element/course: Installing panel boards, metered disconnect enclosures. Installing and bending conduit, proper use of hand benders. Installing larger PVC conduit and using proper methods to heat and bend it. Reading and understanding blueprints. Torquing terminations. Using a battery powered concrete anchor tool. Electric and hydraulic knockout tool. Wiring a basic circuit. Box make up.	

Element/Course: Year 3 Safety & Tools	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: OSHA Construction Safety – Electrical Safety, PPE, Excavation/Motor Vehicles/Tool Safety, Safety of Grounding & Bonding, Basic Fire Protection. Two hours of hands-on lab exercises.	

Element/Course: Year 3 Troubleshooting & Grounding/Bonding Theory	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Troubleshooting Techniques. Theory for grounding and bonding.	

Element/Course: Year 3 NEC and review of code changes	Planned Hours: 40
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Flexible cords and cables, fixture wires. Equipment for general use, switches, receptacles, and cord connectors. Panelboards, switch gear. Luminaires, lamp holders and lamps. Appliances, fixed electric space heating, air conditioning equipment and refrigeration. Generators and transformers. Grounding and bonding. Special occupancies, classified locations, commercial garages, marinas, boatyards, health care facilities, places of assembly, agriculture. Temporary installations. Special equipment, electric signs, elevators, welders, swimming pools, hot tubs, fountains. Emergency systems, legally required and optional standby systems. Fire alarm, Class 1 and 2 wiring. Communications.	

Element/Course: Year 3 WAC & RCW	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Review WAC/RCW code changes	

Element/Course: Year 3 Motor Controls	Planned Hours: 16
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Intro to Motor Controls, Schematics, Wire Diagrams, Ladder Logic 3-Wire Control, Input Devices, Motor Circuits. Using and understanding Article 430.	

Element/Course: Year 3 Solar Photovoltaics, Microgrids, Energy Storage and Management Systems.	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: General requirements, circuit requirements, disconnecting means, wiring methods, grounding and bonding. Source connections. Large scale PV systems. Micro grids. Storage batteries, energy storage systems.	

Element/Course: Year 3 Labs	Planned Hours: 64
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Frederickson Electric Training Academy	
Description of element/course: Transformers and other separately derived systems. Motor controls and wiring a motor. Methods of grounding & bonding for services greater than two hundred amps. Relays, demonstration of neutral loss in multiwire branch circuits, advanced conduit bending with large mechanical benders. Sizing and wiring EV charging stations. CT can, gutter, and other larger enclosures. Installing and terminating larger conductors. Intermediate troubleshooting. Residential layout and circuit planning.	

Element/Course: Year 4 Safety & Tools	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Tool safety, PPE for electrical and arc-flash safety, Jobsite exposure, hazard communication. Two hrs labs.	

Element/Course: Year 4 Motor Controls	Planned Hours: 16
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Continuation from Year 3, Schematics, Wiring Diagrams, Ladder Logic, 3-Wire Control, Input Devices, Motor Circuits. Using and understanding article 430.	

Element/Course: Year 4 Electrical Fundamentals	Planned Hours: 24
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Electrician's math review, Ohm's Law, Watt's Law, parallel and series circuits and power factor. Motors, generators, relays, transformers, overcurrent protection.	

Element/Course: Year 4 NEC and Exam prep	Planned Hours: 24
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Review Code Articles 90-110,220-240,330-314,400-480 and chapters 5-8, exam preparation.	

Element/Course: Year 4 WAC/RCW	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Scopes of Work, License Types, Most Common Violations, Journey Level-Requirements, Renewal	

Element/Course: Year 4 Calculations	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Raceway calculations for conduit fill. Box and outlet box sizing calculations. Pull and junction box calculations. Overcurrent protection and conductor calculations. Motor, air-conditioning, and transformer calculations. Voltage-drop calculations. EV charging calculations.	

Element/Course: Year 4 Labs	Planned Hours: 64
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Installing a new service, panelboard, properly size service conductors, feeders, grounding electrode conductors, install and or utilize existing grounding electrodes. Conduit bending with the electric bender, rigid conduit and large EMT. Wiring a start stop motor control. Wiring relays for heating systems. Wire larger transformers from delta to wye voltages, sizing bonding jumpers according to charts in chapter 2. Troubleshooting transformers, installing relays for heating, boiler controls or large electrical loads. Wiring with metal clad cable, installing materials in metal framed structures.	

Element/Course: Year 5 Safety & Tools	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Elevated work platforms, fall protection work plans, work zone safety. Two hours labs.	

Element/Course: Year 5 Construction Project Management Skills	Planned Hours: 24
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Leadership training, project management, reading prints and recognizing potential issues that can impact the job. Coordinating with other sub-contractors. Looking ahead at how to keep the job on track by having the materials you need and personnel to finish the job on schedule.	

Element/Course: Year 5 Electrical Fundamentals	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Review from year 4. Electrician math, Ohm's Law, Watt's Law, Parallel and Series circuits, Power Factor. Motors, generators, relays, transformers, overcurrent protection.	

Element/Course: Year 5 NEC and Exam prep	Planned Hours: 28
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input checked="" type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Continuation from year 4, review Code Articles 90-110,220-240,330-314,400-480 and chapters 5-8, 01 exam practice.	

Element/Course: Year 5 Calculations	Planned Hours: 16
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Dwelling unit standard and optional calculations, neutral conductor. Multifamily standard and optional calculations, neutral conductor. Commercial calculations, office buildings, restaurants, schools, demand loads. Mobile homes. Light industrial.	

Element/Course: Year 5 Labs	Planned Hours: 68
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Frederickson Electric Training Academy	
Description of element/course: Installing three phase services and panel boards. Advanced conduit bending with the electric bender. Planning conduit and building conduit racks. Wire pulling techniques with electric wire tigger. Advanced circuit troubleshooting. Advanced relays. Lighting control systems. Network troubleshooting. Equipment networking and firmware updates. Generating field estimates and change orders. Client communication scenarios. Procedures for injury and near-miss reporting.	

## Additional Training Providers (if necessary)

Click or tap here to enter text.

Print Name Training Provider

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Title of Training Provider

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Print Name Training Provider

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Organization of Training Provider

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Title of Training Provider

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Organization of Training Provider

For L&I Staff Use Only

*Christina Chance* 6/3/2024  
L&I Apprenticeship Consultant

*Teri Gardner* 6-3-24  
L&I Admin

Department of Labor and Industries  
Apprenticeship Section  
PO Box 44530  
Olympia WA 98504-4530



# Journey Level Wage Rate

From which apprentices' wage rates are computed

TO: Washington State Apprenticeship & Training Council

FROM: Frederickson Electric Training Academy

Occupation:	County(ies):	Journey Level Wage Rate:	Effective Date:
General Electrician (01)	Jefferson, Clallam, Kitsap, Mason, Island	\$ 49.00	5/31/2024
		\$	
		\$	
		\$	

Sponsors must submit the journey-level wage at least annually or whenever changed to the Department.

**Form must be signed by Committee Chair and Secretary or Program's Authorized Signer**

<input checked="" type="checkbox"/> Chair	Date 5/31/2024	<input checked="" type="checkbox"/> Secretary	Date 5/31/2024
<input type="checkbox"/> Authorized Signer			
Print Name: Hans Frederickson	Print Name: Jeff Purkey		
Signature: <i>Hans Frederickson</i>	Signature: <i>Jeff Purkey</i>		



April 27<sup>th</sup>, 2024

Re: Apprenticeship Committee Employee Representative Selection

Frederickson Electric Training Academy completed a selection process for the employee representatives on the 01 Electrician Apprenticeship Committee.

First, an announcement was made at the weekly safety meeting on April 19<sup>th</sup> and a follow-up email was sent to all electricians at Frederickson Electric requesting volunteers to serve on the new committee. The following electricians volunteered: Eugene Africa, Gary Estes, Jeff Purkey, Jacob Ragsdale, and Frank Trafton. After all the volunteers were named, Gary Estes withdrew, feeling that the program would be well served by any of the other volunteers.

During the April 26<sup>th</sup> weekly safety meeting, ballots were distributed to all 01 Electricians in the company to vote on the employee representative candidates. After votes were tallied, Eugene Africa was the top vote getter, followed by a tie between Frank Trafton and Jeff Purkey. Frank Trafton withdrew as he holds an 02 Electrician certification and felt it was appropriate that both of the employee representatives have 01 Electrician certifications.

The employee representatives for the committee are Eugene Africa and Jeff Purkey.

**For L&I Staff Use Only**

*Christina Chance 6/3/2024*  
L&I Apprenticeship Consultant

*Teri Gardner 6-3-24*  
L&I Admin

Department of Labor and Industries  
Apprenticeship Section  
PO Box 44530  
Olympia WA 98504-4530



**Apprenticeship Committee  
Representative Qualifications**

The Apprenticeship Committee is responsible for the day-to-day operations of the apprenticeship and training program and operating the program consistent with the standards of apprenticeship. Pursuant to WAC 296-05-009, the Representative listed below shall be familiar with the applicable apprenticeship standards.

Name of Program  
Frederickson Electric Training Academy

Committee Representative Name  
Jeff Purkey

Committee Representative Signature  
*Jeff Purkey*

Employer Representative  Employee Representative (Does not have the authority to hire or fire)

**Work Experience**

Position (most recent first)	Employer / Organization	From (mm/yy)	To (mm/yy)
Project Mgr	Frederickson Electric Inc.	01/18	Present
Electrician (01)	Frederickson Electric Inc.	07/11	01/18
Electrician (01)	Evergreen Electric, Sequim	08/05	07/11
Trainee	Evergreen State Electric, Puyallup	07/03	07/05

**Education History**

Name of Training and/or School (most recent first)	Completed Date (mm/yy)	Program of Study	Degree or Certification
Clover Park Technical College	06/03	Electronic Fire/Security Tech.	Certification
Tacoma Community College	06/02	Arts	
Stadium High School	06/01	General	Diploma

**Other Technical Certifications or Licenses Held**

WA Electrician (01): PURKEJR935PN

**For L&I Staff Use Only**

*Christina Chance 6/3/2024*

L&I Apprenticeship Consultant

L&I Admin

Department of Labor and Industries  
 Apprenticeship Section  
 PO Box 44530  
 Olympia WA 98504-4530



**Apprenticeship Committee  
 Representative Qualifications**

The Apprenticeship Committee is responsible for the day-to-day operations of the apprenticeship and training program and operating the program consistent with the standards of apprenticeship. Pursuant to WAC 296-05-009, the Representative listed below shall be familiar with the applicable apprenticeship standards.

Name of Program  
 Frederickson Electric Training Academy

Committee Representative Name  
 Eugene Africa

Committee Representative Signature

Employer Representative  Employee Representative (Does not have the authority to hire or fire)

**Work Experience**

Position (most recent first)	Employer / Organization	From (mm/yy)	To (mm/yy)
Electrician (01)	Frederickson Electric Inc.	09/19	Present
Electrician (02)	Frederickson Electric Inc.	06/15	09/19
Elect. Trainee	Frederickson Electric Inc.	04/12	06/15
Solar Installer	Power Trip Energy, Port Townsend	08/11	01/12
Project Mgr	Energy Design, Eugene, OR	04/04	06/11

**Education History**

Name of Training and/or School (most recent first)	Completed Date (mm/yy)	Program of Study	Degree or Certification
Oregon State Apprenticeship	2009	Renewable Energy Technician	LRT26
Lane Community College, Eugene, OR	2004	Renewable Energy Technician	A.S.

**Other Technical Certifications or Licenses Held**

WA Electrician (01): AFRICEP813N9

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*Christina Chance 6/3/2024*  
L&I Apprenticeship Consultant

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L&I Admin

Department of Labor and Industries  
Apprenticeship Section  
PO Box 44530  
Olympia WA 98504-4530



**Apprenticeship Committee  
Representative Qualifications**

The Apprenticeship Committee is responsible for the day-to-day operations of the apprenticeship and training program and operating the program consistent with the standards of apprenticeship. Pursuant to WAC 296-05-009, the Representative listed below shall be familiar with the applicable apprenticeship standards.

Name of Program  
Frederickson Electric Training Academy

Committee Representative Name  
Hans Frederickson

Committee Representative Signature  
*Hans Frederickson*

Employer Representative     Employee Representative (Does not have the authority to hire or fire)

**Work Experience**

Position (most recent first)	Employer / Organization	From (mm/yy)	To (mm/yy)
President	Frederickson Electric Inc.	12/11	Present
Project Mgr	Frederickson Electric Inc.	08/05	12/11

**Education History**

Name of Training and/or School (most recent first)	Completed Date (mm/yy)	Program of Study	Degree or Certification
Stanford University	01/99	Electrical Engineering	M.S.
University of Miami	05/97	Electrical Engineering	B.S.

**Other Technical Certifications or Licenses Held**

WA Electrical Administrator (01): FREDEH\*954JF  
NABCEP PV Installation Professional: 031310-73

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*Christina Chance 6/3/2024*

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L&I Admin

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## Apprenticeship Committee Representative Qualifications

The Apprenticeship Committee is responsible for the day-to-day operations of the apprenticeship and training program and operating the program consistent with the standards of apprenticeship. Pursuant to WAC 296-05-009, the Representative listed below shall be familiar with the applicable apprenticeship standards.

Name of Program  
Frederickson Electric Training Academy

Committee Representative Name  
Maria Frederickson

Committee Representative Signature  
*Maria Frederickson*

Employer Representative     Employee Representative *(Does not have the authority to hire or fire)*

### Work Experience

Position (most recent first)	Employer / Organization	From (mm/yy)	To (mm/yy)
Vice President	Frederickson Electric	12/11	Present

### Education History

Name of Training and/or School (most recent first)	Completed Date (mm/yy)	Program of Study	Degree or Certification
Western Washington University	06/97	Sociology / Psychology	B.S.
Western Washington University	06/97	French	B.A.

### Other Technical Certifications or Licenses Held



May 30<sup>th</sup>, 2024

Re: Sustainability Plan for Frederickson Electric Training Academy

Frederickson Electric Training Academy will sustain its 01 Electrician Apprenticeship Program as follows:

Funding:

- 1) Operational expenses for Frederickson Electric Training Academy is a line item in Frederickson Electric's operating budget.
- 2) Frederickson Electric has historically trained the majority of its 01 Electrician employees, and will allocate the necessary funds to continue doing so with the 01 Electrician apprenticeship program.

Operational & Administrative Capacity:

- 1) Administrative duties will be performed by the training director and office manager, both employees of Frederickson Electric, with backup by the owners of Frederickson Electric, who also serve on the apprenticeship committee.
- 2) The training director is an 01 Electrician at Frederickson Electric and will be paid their regular wages to teach the apprenticeship curriculum. The President will serve as substitute teacher as needed and earns a salary at Frederickson Electric.
- 3) Curriculum materials will be paid for and provided to apprentices by the company.
- 4) Lab equipment, tools, and materials will be paid for by the company.
- 5) Classroom space will be rented by the company until a dedicated company-owned classroom space is available (a new building on existing company property is currently in permitting with Jefferson County).
- 6) Frederickson Electric's general liability insurance will cover all training activities of the company.

Continuity of Funding:

- 1) Frederickson Electric management will periodically evaluate the costs of the 01 Electrician apprenticeship program and raise hourly billing rates to cover training cost increases as needed.