STANDARDS OF APPRENTICESHIP

Developed by
Bitwise Industries Apprenticeship Program
700 Van Ness, Fresno, CA 93721

For the occupations of

Application Developer (Software Developers)
O*NET CODE 15-1252.00   RAPIDS 1129 CB
Cyber Security (Information Security Analysts)
ONET: 15-1212.00   RAPIDS: 2050CB
iOS Development (Computer Programmers)
ONET: 15-1251.00   RAPIDS: 0811CB
Salesforce Administrator (Database Administrators)
ONET: 15-1242.00   RAPIDS: 1130CB
Project Management (Information Technology Project Managers)
ONET: 15-1299.09   RAPIDS: 1048CB
Tier 1 Tech Support (Computer User Support Specialists)
ONET: 15-1232.00   RAPIDS: 1131CB
Quality Assurance (Computer Systems Analysts)
O*NET CODE 15-1211.00   RAPIDS 2017 CB
Solutions Engineer / Architect (Software Developers)
O*NET CODE 15-1252.00   RAPIDS 1129 CB
WordPress (Software Developers)
ONET: 15-1252.00   RAPIDS: 1129CB
.NET (Computer Programmers)
ONET: 15-1251.00   RAPIDS: 0811CB
Inside Sales (Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products)
ONET: 41-4011.00   RAPIDS: 2087CB
Call Center Agent (Customer Service Representatives)
ONET: 43-4051.00   RAPIDS: 1008CB
Online Marketing (Search Marketing Strategists)
ONET: 13-1161.01   RAPIDS: 2077CB

APPROVED BY
U.S. DEPARTMENT OF LABOR OFFICE OF APPRENTICESHIP &
CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS,
DIVISION OF APPRENTICESHIP STANDARDS

_____
CA State Director, Region 6, Office of Apprenticeship

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Chief, Division of Apprenticeship Standards

Registration Date: **Registration Date:**
DAS File Number: **Program Number: 2021-CA-80702**

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Bitwise Industries Apprenticeship Program (Program Sponsor) recognizes the need for structured training programs to maintain the high level of skill and competence demanded in the information security industry. Registered apprenticeship is the most practical and sound training system available to meet that need, to develop individuals into skilled workers, and to ensure industry an adequate supply of skilled workers.

These Standards were developed in cooperation and partnership between the U.S. Department of Labor Office of Apprenticeship, California office and the California Division of Apprenticeship Standards to streamline the process of registration for sponsors seeking dual registration with both agencies. The purpose is to set forth a single set of standards which incorporates Title 29, Code of Federal Regulations (CFR), § 29,30 and California State Labor Code Section 3073 and outlines the requirements for registration of acceptable apprenticeship programs for Federal and State purposes, and sets forth labor standards that safeguard the welfare of apprentices.

Such registration will be by the U. S. Department of Labor, Office of Apprenticeship, and by the State of California Division of Apprenticeship Standards as the appropriate bodies in that State for approval of local apprenticeship programs for Federal and State purposes. These Standards do not preclude the ability of a sponsor to register solely with one agency or the other and not register with both. As stated previously, these standards are solely for those sponsors seeking dual registration.

The purpose of these Standards for Dual Registration is to provide policy and guidance to local sponsors in developing Standards for Apprenticeship for local approval and registration. These Guideline Standards developed by the sponsor are certified by the U. S. Department of Labor, Office of Apprenticeship as substantially conforming to the requirements of 29, CFR §§ 29 and 30, and by the California Department of Industrial Relations, Division of Apprenticeship Standards California State Labor Code Section 3073, to register local programs, compliant with both federal and local laws and regulations.

Local Standards of Apprenticeship must be developed and registered by each sponsor that undertakes to carry out an apprenticeship-training program. The local Standards of Apprenticeship will be the sponsor's written plan outlining all terms and conditions for the recruitment, selection, employment, training, and supervision of apprentices as subscribed by the sponsor, and must meet all the requirements of both the Federal and State Registration Agencies for dual registration purposes.

The establishment of local apprenticeship programs under these Dual Federal and State Standards will provide the sponsor with a skilled and versatile work force at each of its locations by providing apprentices the opportunity to become journey workers through an organized and properly supervised program of training, practical experience and related instruction. Local Sponsors will continue to be responsible for adhering to policies and procedures of both agencies and will continue to be subject to oversight and compliance by both agencies in respect to the appropriate authority of each agency.

Program Sponsor is responsible for the administration of all aspects of a Registered Apprenticeship program. Sponsor means any person, association, committee, or organization operating an apprenticeship program and in whose name the program is (or is to be) registered or approved.

Responsibilities of Sponsor

A. Cooperate in the selection of apprentices as outlined in this program.

B. Ensure that all apprentices are under written apprenticeship agreements.

C. File a signed copy of each apprentice agreement with the Registration Agencies, with copies to all parties to the agreement;

D. Provide disciplinary procedures for apprentices and including provisions for fair hearings;

E. Review and recommend apprenticeship activities in accordance with this program.

F. Establish the minimum standards of education and On the Job Training (OJT) experience required of apprentices.

G. Register the local apprenticeship standards with the Registration Agencies.

H. Hear and resolve all complaints of violations of apprenticeship agreements.

I. Implement a program for training and education regarding illegal discrimination and sexual harassment.

J. Arrange evaluations of apprentices' progress in manipulative skills and technical knowledge.

K. Conduct on-going evaluation of the interest and capacity of employers to participate in apprenticeship program and to train apprentices on the job.

L. Maintain records of all apprentices, showing their education, experience, and progress in learning the occupation.

M. Certify to the Registration Agencies that apprentices have successfully completed their apprenticeship program.

N. Notify, within 30 days, the Registration Agencies of all new apprentices to be registered, credit granted, suspensions for any reason, reinstatements, extensions, completions, and cancellations with explanation of causes.

O. Supervise all the provisions of the local standards and be responsible, in general, for the successful operation of the standards by performing the duties here listed. Cooperate with public and private agencies, which can be of assistance in obtaining publicity to develop public support of apprenticeship. Keep in contact with all parties concerned, including apprentices, employers, and journey workers.

P. Determine if an employer has the work site facilities, skilled workers as trainers at the work site, and equipment sufficient to train apprentices;

Q. Bitwise Industries Apprenticeship Program will provide each apprentice upon execution of the apprentice agreement with access to a copy of these standards for review, along with any applicable written rules and policies. Bitwise Industries Apprenticeship Program will require the apprentice to sign an acknowledgment of review, of the same. Whenever revisions or modifications are made to the rules and policies follow this procedure.

R. When notified that an apprentice related and supplemental instruction or on-the-job progress are found to be unsatisfactory, the sponsor will determine whether the apprentice should continue in a probationary status and may require the apprentice to repeat a process or series of processes before advancing to the next wage classification. Should it be found in the course of this determination that the apprentice does not have the ability or desire to continue the training to become a journey worker, the sponsor will, after the apprentice has been given adequate assistance and opportunity for corrective action, terminate the apprenticeship agreement, as provided in 29 CFR § 29.7(h)(1)(2)(i) and (ii) and CA Labor Code Section 3078 (g), CCR Section 212(b)(9).

S. The sponsor will work with employers to provide each registered apprentice with continuous employment sufficient to provide the opportunity for completion of his or her apprenticeship program. If the sponsor is unable to fulfill its training and/or employment obligation in conformance with these standards, the sponsor will, per Section XXIII of these standards and with the apprentice's consent, make a good-faith effort to facilitate the transfer of the apprentice to another registered employer for completion of the apprenticeship. If conditions of business make it necessary to temporarily suspend the period of apprenticeship. Apprentices suspended for this reason will be given the opportunity to resume their active apprenticeships before any additional apprentices are employed. The suspension and reinstatement of apprentices shall be done in relation to retention of the most advanced apprentice and in accordance with the company policy for breaks in seniority.

T. Prepare and submit an annual Self-Assessment Review, and Program Improvement Plan to the assigned Apprenticeship Consultants.

U. May participate in the development of, and/or comply with approved industry training criteria;

V. Adopt changes to these standards, as necessary, subject to the approval of the parties hereto, the Chief of the Division of Apprenticeship Standards and the Office of Apprenticeship, CA State Director.

SECTION II - EQUAL OPPORTUNITY PLEDGE – 29 CFR §§ 29.5(b)(21), 30.3(c)(1) and Labor Code § 3074.1

Bitwise Industries Apprenticeship Program will not discriminate against apprenticeship applicants or apprentices based on race, color, religion, national origin, sex (including pregnancy and gender identity), sexual orientation, genetic information, or because they are an individual with a disability or a person 40 years old or older. Bitwise Industries Apprenticeship Program and participating employers will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, part 30 and CCR §§ 212 (b) (5) , 207, 215.

SECTION III - AFFIRMATIVE ACTION PLAN AND SELECTION PROCEDURES – 29 CFR §§ 29.5(b)(21), 30.4, 30.10 and Labor Code § 3074.1

Sponsors with 5 or more registered apprentices are required to adopt an affirmative action plan (Appendix C) and selection procedures (Appendix D), which will become part of these standards of apprenticeship. However, the Office of Apprenticeship encourages the development of these two plans for all programs regardless of apprentice numbers. For programs with fewer than 5 apprentices, these plans are not required, and the sponsor may continue to select apprentices in conformance with its current human resources and equal employment opportunity hiring policies. See Appendix C for the description of the Affirmative Action Plan. Program sponsor will submit an annual compliance report to the Division of Apprenticeship Standards at such time as requested by the Division.

SECTION IV - QUALIFICATIONS FOR APPRENTICESHIP – 29 CFR § 29.5(b)(10) and Labor Code §§ 3075.1, 3076.3; CCR § 215

Applicants will meet the following minimum qualifications. These qualification standards, and the score required on any standard for admission to the applicant pool, must be directly related to job performance, as shown by a statistical relationship between the score required for admission to the pool and performance in the apprenticeship program:

A. Age
   Minimum qualifications required by the sponsor for persons entering the apprenticeship program, with an eligible starting age not less than 16 years.

B. Education
   A high school diploma, General Educational Development (GED) equivalency or other high school equivalency credential is required.

C. Physical
   Must have the ability to safely perform the work of trade.

D. Interview
   Must qualify and pass the oral interview.

SECTION V - APPRENTICESHIP AGREEMENTS – 29 CFR §§ 29.3(d), 29.3(e), 29.5(b)(11) and Labor Code §§ 3077, 3078; CCR § 206

After an applicant for apprenticeship has been selected, but before employment as an apprentice or enrollment in related instruction, the apprentice will be covered by a written apprenticeship agreement (Appendix B-1) which will be submitted electronically through the RAPIDS, using the Apprentice Electronic Registration process by the sponsor and approved by and registered with the Registration Agencies. CA DAS has a written Agreement, the DAS 1, which may be obtained online. Such agreement will contain a statement making the terms and conditions of these standards a part of the agreement as though expressly written therein. The sponsor shall provide a copy of the apprenticeship agreement to the apprentice, and the Registration Agency. An additional copy will be provided to the veteran's state approving agency for those veteran apprentices desiring access to any benefits to which they are entitled.

Prior to signing the apprenticeship agreement, each selected applicant will be given an opportunity to read and review these standards, the sponsor's written rules and policies, the apprenticeship agreement.

The Registration Agency will be advised within 30 days of the execution of each apprenticeship agreement and will be given all the information required for registering the apprentice.

SECTION VI - SUPERVISION OF APPRENTICES AND RATIOS – 29 CFR § 29.5(b)(14), 29 CFR § 29.5(b)(7) and CCR §§ 212 (a) (6), 203.1

No apprentice shall work without proper or adequate supervision of the journeyworker.

For the purpose of these apprenticeship standards, adequate or proper supervision of the apprentice means the apprentice is under the supervision of a fully qualified journeyworker or supervisor at all times who is responsible for making work assignments, providing OJT, and ensuring safety at the worksite.

To adequately or properly supervise an apprentice does not mean the apprentice must be within eyesight or reach of the supervisor, but that the supervisor knows what the apprentice is working on; is readily available to the apprentice; and is making sure the apprentice has the necessary instruction and guidance to perform tasks safely, correctly, and efficiently.

The sponsor shall establish a numeric ratio of apprentices to fully proficient workers (journey workers) consistent with proper supervision, training, safety, continuity of employment. The ratio language must be specific and clearly described as to its application to the jobsite, workforce, department, or plant. The ratio of apprentices to fully proficient workers (journey workers) will be as noted in Appendix A1-A13.

SECTION VII - TERM OF APPRENTICESHIP –29 CFR § 29.5(b) (2) and Labor Code §§ 3071, 3075, 3077, 3078 (g)

The term of the occupation will be competency based for up to 12 months OJT with an equivalent OJT attainment of 2000 hours, supplemented by the required hours of related instruction as stated on the Work Process Schedule and Related Instruction Outline (Appendix A1-A13).

SECTION VIII - PROBATIONARY PERIOD – 29 CFR §§ 29.5(b) (8), 29.5(b) (20) and CCR § 212 (b) (3)

Every applicant selected for apprenticeship will serve a probationary period. The probationary period cannot exceed 25 percent of the length of the program or 1 year, whichever is shorter. The probationary period shall be 4 weeks.

During the probationary period, either the apprentice or the sponsor may terminate the apprenticeship agreement, without stated cause, by notifying the other party in writing. The records for each probationary apprentice will be reviewed prior to the end of the probationary period. Records may consist of periodic reports regarding progression made in both the OJT and related instruction, and any disciplinary action taken during the probationary period.

Any probationary apprentice evaluated as satisfactory after a review of the probationary period will be given full credit for the probationary period and continue in the program.

After the probationary period, the apprenticeship agreement may be cancelled at the request of the apprentice or may be suspended or cancelled by the employer for reasonable cause after documented due notice to the apprentice and a reasonable opportunity for corrective action. In such cases, the employer will provide written notice to the apprentice, the sponsor, and to the Registration Agency of the final action taken.

SECTION IX - HOURS OF WORK – CCR, §§ 208 (b) (c, 4, 6) and 212

Apprentices will generally work the same hours as fully proficient workers (journey workers), except that no apprentice will be allowed to work overtime if it interferes with attendance in related instruction classes.

Apprentices who do not complete the required hours of OJT during a given segment will have the term of that segment extended until they have accrued the required number of hours of training.

Straight time are 8 hours per day and no more than 40 hours per week.

Overtime provisions: Overtime shall be paid at not less than one and one-half (1 ½ times) the straight time hourly rate of pay in excess of eight (8) hours per day. Likewise, overtime must be paid for hours in excess of forty (40) in any one workweek.

SECTION X - APPRENTICE WAGE PROGRESSION – 29 CFR § 29.5(b) (5) and Labor Code § 3078; CCR §§ 208 (a) (c-1,2,5,6), 212 (5)

Apprentices will be paid based on a wage range that reflects a progressively increasing schedule of wages during their apprenticeship based on the acquisition of increased skill and competence

on the job and in related instruction. Before an apprentice is advanced to the next segment of training or to fully proficient or journeyworker status, the sponsor will evaluate all progress to determine whether advancement has been earned by satisfactory performance in OJT competencies and in related instruction courses. In determining whether satisfactory progress has been made, the sponsor will be guided by the work experience competencies and related instruction records and reports.

The progressive wage schedule will be an increasing percentage of the fully proficient or journey workers wage rate. The percentages that will be applied to the applicable fully proficient or journey workers rate are shown on the attached Work Process Schedule and Related Instruction Outline (Appendix A1-A13). Employers will either meet or exceed the percentage of Journeyperson Hourly Rate. In no case will the starting wages of apprentices be less than that required by any minimum wage law that may be applicable.

SECTION XI - CREDIT FOR PREVIOUS EXPERIENCE – 29 CFR §§ 29.5(b) (12), 30.4(c)(8) and Labor Code § 3092; CCR § 224 (d, i, f)

The sponsor may grant credit toward the term of apprenticeship to new apprentices. Credit will be based on demonstration of previous skills or knowledge equivalent to those identified in these standards.

Apprentice applicants seeking credit for previous experience gained outside the supervision of the sponsor must submit the request at the time of application and furnish such records, affidavits, and as necessary demonstrate competency in the given area of study to substantiate the claim. An applicant who is a veteran and who wishes to receive consideration for military training and/or experience must submit a DD-214. Applicants requesting credit for previous experience who are selected into the apprenticeship program will start at the beginning wage rate. The request for credit will be evaluated and a determination made by the sponsor during the probationary period, when actual on-the-job and related instruction performance can be examined. Prior to completion of the probationary period, the amount of credit to be awarded will be determined after review of the apprentice's previous work and training/education record and evaluation of the apprentice's performance and demonstrated skill and knowledge during the probationary period.

An apprentice granted credit will be advanced to the wage rate designated for the period to which such credit accrues. The Registration Agency will be advised of any credit granted and the wage rate to which the apprentice is advanced.

The granting of advanced standing will be uniformly applied to all apprentices.

SECTION XII - WORK EXPERIENCE – 29 CFR § 29.5(b)(3) and Labor Code § 3071; CCR § 212 (a) (1)

During the apprenticeship, the apprentice will receive OJT and related instruction in all phases of the occupation necessary to develop the skill and proficiency of a skilled journeyworker. The OJT will be under the direction and guidance of the apprentice's supervisor. The employer shall see that all apprentices are under the supervision of a qualified journeyman or instructor and shall provide the necessary diversified experience and training in order to train and develop the apprentice into a skilled worker, proficient in all the work processes of the trade as outlined herein.

Each apprentice will be trained in the use of new equipment, materials and process as they come into use in the occupation.

SECTION XIII – RELATED AND SUPPLEMENTAL INSTRUCTION – 29 CFR § 29.5(b) (4) and Labor Code §§ 3077, 3078 (e); CCR §§ 205 (c) (m), 209, 210, 212

Every apprentice is required to participate in coursework related to the job as outlined in Appendix A1-A13. A minimum of 144 hours of related and supplemental instruction is recommended for each year of the apprenticeship. Apprentices agree to take such courses as the sponsor deems advisable. The sponsor will secure the instructional aids and equipment it deems necessary to provide quality instruction. In cities, towns, or areas having no vocational schools or other schools that can furnish related instruction, the sponsor may require apprentices to complete the related instruction requirement through electronic media or other instruction approved by the Registration Agency.

Apprentices **will not** be paid for attending related instruction classes.

All apprentices completing related instruction may receive college credit and the sponsor will inform each apprentice of any college credit earned.

Any apprentice who is absent from related instruction will satisfactorily complete all coursework missed before being advanced to the next period of training. In cases of failure of an apprentice to fulfill the obligations regarding related instruction without due cause, the sponsor will take appropriate disciplinary action and may terminate the apprenticeship agreement after due notice to the apprentice and opportunity for corrective action.

To the extent possible, related instruction will be closely correlated with the practical experience and training received on the job. The sponsor will monitor and document the apprentice's progress in related instruction classes.

The sponsor will secure competent instructors whose knowledge, experience, and ability to teach will be carefully examined and monitored. The sponsor may require the instructors to attend instructor training to meet the requirements of 29 CFR § 29.5(b)(4)(i)(ii) and Labor Code 3074.

Related and supplemental instruction will be overseen by San Joaquin County Office of Education, with a letter of support, Appendix E.

SECTION XIV - SAFETY AND HEALTH TRAINING – 29 CFR § 29.5(b)(9) and Labor Code §§ 3076, 3095; CCR §§ 209, 212(b 12)

All apprentices will receive instruction in safe and healthful work practices both on the job and in classroom related instruction that are in compliance with the Occupational Safety and Health Administration standards promulgated by the Secretary of Labor under 29 U.S.C. 651 et seq., as amended, or state standards that have been found to be at least as effective as the federal standards.

All apprentices shall receive training and education in first aid, safe working practices and in the recognition of occupational health and safety hazards, in accordance with employer policies.
All apprentices shall receive training in the recognition of illegal discrimination and sexual harassment, in accordance with employer policies.

SECTION XV - MAINTENANCE OF RECORDS – 29 CFR §§ 29.5(b)(6), 29.5(b)(23), 30.8 and CCR § 212 (b, 7)

Program sponsor is responsible for maintaining, at a minimum, the following records:

- summary of the qualifications of each applicant;
- basis for evaluation and for selection or rejection of each applicant;
- records pertaining to interview;
- the original application;
- records of each apprentice's OJT;
- related instruction reviews and evaluations;
- progress evaluations;
- record of job assignments, promotions, demotions, layoffs, or terminations, rates of pay;
- any other actions pertaining to the apprenticeship

Program sponsor will also maintain all records relating to apprenticeship applications (whether selected or not), including, but not limited to, the sponsor's outreach, recruitment, interview, and selection process. Such records will clearly identify minority and female (minority and nonminority) applicants and must include, among other things, the basis for evaluation and for selection or rejection of each applicant. For a complete list of records that each sponsor is required to maintain under 29 CFR § 30, please refer to 29 CFR § 30.8.

All such records are the property of the sponsor and will be maintained for a period of 5 years from the date of last action. They will be made available to the Registration Agency upon request.

SECTION XVI - CERTIFICATE OF COMPLETION OF APPRENTICESHIP – 29 CFR § 29.5(b)(15), Circular 2015-02 and Labor Code §§ 3071, 3078, 3092; CCR §§ 212, 224

Upon satisfactory completion of the competency requirements of the apprenticeship program as established in these Standards, the Sponsor will so certify to the Registration Agencies and request the awarding of a Certificate of Completion of Apprenticeship to the completing apprentice(s). Such requests will be completed electronically using the Registered Apprenticeship Partners Information Data System (RAPIDS) and DAS Certificate of Completion on the DAS Form 104 accompanied by the appropriate documentation for both on-the-job training and the related instruction as may be required by the Registration Agencies.
In recognition of unusual ability and progress, the apprenticeship program may decrease the term of apprenticeship for an individual apprentice not more than twelve and one-half (12 ½ percent).
An apprentice may be credited time for previous experience if that experience is of an approved nature, and shall have completed not less than six months as an apprentice.

Certificate of Training

A Certificate of Training may be requested from and issued by the Registration Agencies only for a registered apprentice who has been certified by the sponsor as having successfully met the requirements to receive an interim credential as identified in these standards. The Registration Agency may require that a record of completed OJT and related instruction for the apprentice accompany such requests.

SECTION XVII - NOTICE TO REGISTRATION AGENCIES – 29 CFR §§ 29.3(d), 29.3(e), 29.5(b)(19), and CCR § 206 (a) (2)

The Registration Agency must be notified within 30 days of any apprentice action - e.g., registered, reinstated, extended, modified, granted credit, completed, transferred, suspended, canceled - and a statement of the reasons therefore.

SECTION XVIII – REGISTRATION, CANCELLATION, AND DEREGISTRATION – 29 CFR § 29.5(b)(18), 29.8(a)(2), 29.8(b)(8) and Labor Code §§ 3073.1(b); CCR §§ 212.2 and 212.4

These standards will, upon adoption by the sponsor, be submitted to the Registration Agency for approval. Such approval will be acquired before implementation of the program.

The sponsor reserves the right to discontinue at any time the apprenticeship program set forth herein. The sponsor will notify the Registration Agency within 30 days in writing of any decision to cancel the program.

The Registration Agency may initiate deregistration of these standards for failure of the sponsor to abide by the provisions herein. Such deregistration will be in accordance with the Registration Agency's regulations and procedures.

The sponsor will notify each apprentice of the cancellation of the program and the effect of same. If the apprenticeship program is cancelled at the sponsor's request, the sponsor will notify the apprentice(s) within 15 days of the date of the Registration Agency's acknowledgment of the sponsor's request. If the Registration Agency orders the deregistration of the apprenticeship program, the sponsor will notify the apprentice(s) within 15 days of the effective date of the order. This notification will conform to the requirements of 29 CFR § 29.8.

SECTION XIX - AMENDMENTS AND MODIFICATIONS – 29 CFR § 29.5(b)(18), and Labor Code §§ 3073, 3078; CCR § 212 (b) (13)

These standards may be amended or modified at any time by the sponsor provided that no amendment or modification adopted will alter any apprenticeship agreement in force at the time without the consent of all parties. Such amendment or modification will be submitted to the Registration Agency for approval and registration prior to being placed in effect. A copy of each amendment or modification adopted will be furnished to each apprentice to whom the amendment or modification applies.

SECTION XX - COMPLAINT PROCEDURE ADJUSTING DIFFERENCES – 29 CFR §§ 29.5(b)(22), 29.7(k), 29.12, and 29 CFR §§ 30.14 , and Labor Code §§ 3078 (h), 3085; CCR §§ 201, 202, 203, 262

The sponsor will have full authority to enforce these standards. Its decision will be final and binding on the employer, the sponsor, and the apprentice, unless otherwise noted below.

If an applicant or an apprentice believes an issue exists that adversely affects the apprentice's participation in the apprenticeship program or violates the provisions of the apprenticeship agreement or standards, the applicant or apprentice may seek relief. Nothing in these complaint procedures precludes an apprentice from pursuing any other remedy authorized under another Federal, State, or local law. Below are the methods by which apprentices may send a complaint:

1. **Complaints regarding discrimination.** Complaints must contain the complainant's name, address, telephone number, and signature, the identity of the respondent, and a short description of the actions believed to be discriminatory, including the time and place. Generally, a complaint must be filed within 300 days of the alleged discrimination. Complaints of discrimination should be directed to the following contact:

   U.S. Department of Labor, Office of Apprenticeship
   200 Constitution Ave. NW, Washington, DC 20210
   Telephone Number: *(202) 693-2796*
   Email Address*: ApprenticeshipEEOcomplaints@dol.gov*
   Point of Contact: *Director, Division of Registered Apprenticeship and Policy*
   Attn: Apprenticeship EEO Complaints

   California Division of Apprenticeship Standards
   1515 Clay St, 3rd floor, Ste 301 Oakland, CA 94612
   Telephone Number*: (415) 703-4920*
   Email Address*: DAS@dir.ca.gov*
   Point of Contact*: Deputy Chief, Division of Apprenticeship Standards*
   Attn: EEO Complaints

   You may also be able to file complaints directly with the EEOC, or State fair employment practices agency.

2. **Other General Complaints**. The sponsor will hear and attempt to resolve the matter locally if written notification from the apprentice is received within *15* days of the alleged violation(s). The sponsor will make such rulings as it deems necessary in each individual case within *30* days of receiving the written notification *(To be completed by Sponsor)*:
Name: Bitwise Industries Apprenticeship Program
Address: 700 Van Ness, Fresno, CA 93721
Telephone Number: *(559) 905-2189*
Email Address: *bmily@bitwiseindustries.com*

Any complaint described above that cannot be resolved by the program sponsor to the satisfaction of all parties may be submitted to the Registration Agencies provided below.

The Registration Agency is the United States Department of Labor's Office of Apprenticeship and the California Division of Apprenticeship Standards. General inquiries, notifications and requests for technical assistance may be submitted to the Registration Agency using the contact information below *(To be completed by the Registration Agency)*:

U.S. Department of Labor, Office of Apprenticeship
200 Constitution Ave. NW, Washington, DC 20210
Telephone Number: *(202) 693-2796*
Email Address*: ApprenticeshipEEOcomplaints@dol.gov*
Point of Contact: *Director, Division of Registered Apprenticeship and Policy*
Attn: Apprenticeship EEO Complaints

California Division of Apprenticeship Standards
1515 Clay St, 3rd floor, Ste 301 Oakland, CA 94612
Telephone Number*: (415) 703-4920*
Email Address*: DAS@dir.ca.gov*
Point of Contact*: Deputy Chief, Division of Apprenticeship Standards*
Attn: EEO Complaints

SECTION XXI - TRANSFER OF AN APPRENTICE AND TRAINING OBLIGATION – 29 CFR § 29.5(13) and Labor Code §§ 3078, 3080; CCR § 212 (b) (14)

If an employer is unable to fulfill his/her obligations to train under any apprentice agreement, or in the event of a layoff, the apprenticeship committee may, with the approval of the Registration Agencies, transfer such agreement to any other employer if the apprentice consents and such other employer agrees to assume the obligation of said apprentice agreement. The transfer of an apprentice between apprenticeship programs and within an apprenticeship program must be based on agreement between the apprentice and the affected program sponsors and must comply with the following requirements:

I. The transferring apprentice must be provided a transcript of related instruction and OJT by the program sponsor;
II. Transfer must be to the same occupation; and
III. A new apprenticeship agreement must be executed when the transfer occurs between the program sponsors.

The apprentice must receive credit from the new sponsor for the training already satisfactorily completed.

SECTION XXII - RESPONSIBILITIES OF THE APPRENTICE - CCR §§ 205 (c, e, i, & m), 212 (3)

Apprentices, having read these standards formulated by the sponsor, agree to all the terms and conditions contained herein and agree to abide by the sponsor's rules and policies, including any amendments, and to serve such time, perform such manual training, and study such subjects as the sponsor may deem necessary to become a skilled journeyworker.

In signing the apprenticeship agreement, apprentices assume the following responsibilities and obligations under the apprenticeship program:

A. Maintain and make available such records of work experience and training received on the job and in related instruction as may be required by the sponsor.
B. Develop and practice safe working habits and work in such a manner as to assure his/her personal safety and that of fellow workers.
C. Work for the employer to whom the apprentice is assigned for the duration of the apprenticeship, unless the apprentice is reassigned to another employer or the apprenticeship agreement is terminated by the sponsor.

D. Each apprentice shall satisfactorily perform all work and learning assignments both on the job and in related instruction and shall comply with the rules, regulations and decisions of the apprenticeship program.

SECTION XXIII – TECHNICAL ASSISTANCE - Labor Code §§ 3072, 3073

Technical assistance, such as that from the U.S. Department of Labor's Office of Apprenticeship, California Division of Apprenticeship Standards, and vocational schools, may be requested to advise the sponsor.

The sponsor is encouraged to invite representatives from industry, education, business, private organizations, and public agencies to provide consultation and advice for the successful operation of its training program.

SECTION XXIV - CONFORMANCE WITH FEDERAL LAWS AND REGULATIONS

No Section of these Standards of Apprenticeship shall be construed as permitting violation of any Federal Law or Regulation s and the State of California Law or Regulations.

SECTION XXV - DEFINITIONS

APPRENTICE: Any individual employed by the employer meeting the qualifications described in the standards of apprenticeship who has signed an apprenticeship agreement with the local sponsor providing for training and related instruction under these standards and who registers with the Registration Agency.

APPRENTICE ELECTRONIC REGISTRATION (AER): An electronic tool that allows for instantaneous transmission of apprentice data for more efficient registration of apprentices and provides program sponsors with a faster turnaround on their submissions and access to their apprenticeship program data.

APPRENTICESHIP AGREEMENT: The written agreement between the apprentice and the sponsor setting forth the responsibilities and obligations of all parties to the apprenticeship

agreement with respect to the apprentice's employment and training under these standards. Each apprenticeship agreement must be registered with the Registration Agency.

APPRENTICESHIP COMMITTEE: Those persons designated by the sponsor to act as agents for the sponsor in the administration of the program.

CAREER LATTICE: Career lattice apprenticeship programs include occupational pathways that move apprentices laterally or upward within an industry. These programs may or may not include an interim credential leading to the Certificate of Completion of Apprenticeship*.*

CERTIFICATE OF COMPLETION OF APPRENTICESHIP: The credential issued by the Registration Agency to those registered apprentices certified and documented as having successfully completed the apprentice training requirements outlined in these standards of apprenticeship.

CCR: The California Code of Regulations Title 8, Chapter 2, Subchapter 1 that describes requirements for apprenticeship standard in the State of California.

CERTIFICATE OF TRAINING: A credential that may be issued by the U.S. Department of Labor's Office of Apprenticeship Administrator to those registered apprentices whom the sponsor has certified in writing to the Registration Agency as having successfully met the requirements to receive an interim credential.

COMPETENCY-BASED OCCUPATION: An occupation using an apprenticeship approach that requires the attainment of manual, mechanical, or technical skills and knowledge, as specified by an occupation standard and demonstrated by an appropriate written and hands-on proficiency measurement.

ELECTRONIC MEDIA: Media that utilize electronics or electromechanical energy for the end user (audience) to access the content. Includes, but is not limited to, electronic storage media, transmission media, the Internet, extranets, lease lines, dial-up lines, private networks, and the physical movement of removable/transportable electronic media and/or interactive distance learning.

EMPLOYER: Any person or organization employing an apprentice, whether or not such person or organization is a party to an apprenticeship agreement with the apprentice. A person, business, or company signatory to this sponsor's standards that is responsible for providing hours of work, supervision, wages, and/or benefits to apprentices in its employ as registered under these standards.

HYBRID OCCUPATION: An occupation using an apprenticeship approach that measures the individual apprentice's skill acquisition through a combination of a specified minimum number of hours of on-the-job learning and the successful demonstration of competency as described in a work process schedule.

INTERIM CREDENTIAL: A credential issued by the Registration Agency, upon request of the appropriate sponsor, as certification of competency attainment by an apprentice.

JOURNEYWORKER: A worker who has attained a level of skills, abilities, and competencies recognized within an industry as mastery of the skills and competencies required for the occupation. The term may also refer to a mentor, technician, specialist, or other skilled worker who has documented sufficient skills and knowledge of an occupation, either through formal apprenticeship or through practical on-the-job experience and formal training.

LABOR CODE (LC): The California Labor Code that sets the working conditions and requirements for employment in the State of California.

LOCAL EDUCATION AGENCY (LEA): The preparation of trade analyses and development of curriculum for instruction, and the administration and supervision of related and supplemental instruction for apprentices, coordination of instruction with job experiences, and the selection and training of teachers and coordinators for this instruction shall be the responsibility of, and shall be provided by, state and local boards responsible for vocational education upon agreement with the program sponsor.

O*NET-SOC CODE: The Occupational Information Network (O*NET) codes and titles are based on the new Standard Occupational Classification (SOC) system mandated by the federal Office of Management and Budget for use in collecting statistical information on occupations. The O*NET classification uses an 8-digit O*NET-SOC code. Use of the SOC classification as a basis for the O*NET codes ensures that O*NET information can be readily linked to labor market information such as occupational employment and wage data at the national, state, and local levels.

ON-THE-JOB TRAINING (OJT): Tasks learned on-the-job in which the apprentice must become proficient before a completion certificate is awarded. The learning must be through structured, supervised work experience.

PROVISIONAL REGISTRATION: The 1-year initial provisional approval of newly registered programs that meet the required standards for program registration, after which program approval may be made permanent, continued as provisional, or rescinded following a review by the Registration Agency, as provided for in 29 CFR § 29.3(g) and (h).

REGISTERED APPRENTICESHIP PARTNERS INFORMATION DATA SYSTEM (RAPIDS): A federal system that provides for the automated collection, retention, updating, retrieval, and summarization of information related to apprentices and apprenticeship programs.

REGISTRATION AGENCY and FIELD REPRESENTATIVE: The U.S. Department of Labor's Office of Apprenticeship and the California Division of Apprenticeship Standards. The field representative shall mean the person designated by Office of Apprenticeship to service this program.

The Federal Registration Agency and field representative identified are the U.S. Department of Labor/ETA, Office of Apprenticeship, Harry Dispensa, Apprenticeship Training Consultant, 90 – 7th St. Suite 17-100 San Francisco, CA 94103 dispensa.harry@dol.gov (415) 625-2230.

The Department of Industrial Relations, Division of Apprenticeship Standards assigned Apprenticeship Consultants to every registered sponsor in the State of California. Consultants have the responsibility for registering apprenticeship programs and apprentices, providing technical assistance, conducting reviews for compliance with Labor Code Section 3073 and 3073.1, conducting quality assurance assessments and to service this program.

The State of California Registration Agency and DAS Consultant identified are the State of California, Department of Industrial Relations, Division of Apprenticeship Standards, Adriana Salmoran, Apprenticeship Consultant, Fresno D.O., 2550 Mariposa Mall Room 3080, Fresno, CA 93719, asalmoran@dir.ca.gov, 559-445-5431.

RELATED and SUPPLEMENTAL INSTRUCTION (RSI): An organized and systematic form of instruction designed to provide the apprentice with knowledge of the theoretical and technical

subjects related to the apprentice's occupation. Such instruction may be given in a classroom, through occupational or industrial courses, or by correspondence courses of equivalent value, electronic media, or other forms of self-study approved by the Registration Agency.

SPONSOR (Committee): Any person, association, committee, or organization that operates an apprenticeship program and in whose name the program is registered. That assumes the full responsibility for administration and operation of the apprenticeship program.

STANDARDS OF APPRENTICESHIP: This entire document, including all appendices and attachments hereto, and any future modifications and additions approved by the Registration Agencies.

SUPERVISOR OF APPRENTICE(S): An individual designated by the program sponsor to supervise or have charge and direction of an apprentice.

TIME-BASED OCCUPATION: An occupation using an apprenticeship approach that measures skill acquisition through the individual apprentice's completion of at least 2,000 hours of on-the-job training as described in a work process schedule and a minimum of 144 hours per year of related and supplemental instruction.

TRANSFER: A shift of apprenticeship registration from one program to another or from one employer within a program to another employer within that same program, where there is agreement between the apprentice and the affected apprenticeship committees or program sponsors.

YOUTHBUILD: A youth and community development program that addresses core issues facing low-income communities: housing, education, employment, crime prevention, and leadership development. In YouthBuild programs, low-income young people ages 16-24 work toward their high school diploma or General Educational Development (GED) equivalency, learn job skills and serve their communities by building affordable housing, and transform their own lives and roles in society. Sponsors that wish to hire YouthBuild students who are trained in any occupation covered under these standards and who meet the minimum qualifications for apprenticeship may do so via the direct entry provision described in Appendix D: Selection Procedures.

SECTION XXVI - VETERANS' EDUCATIONAL ASSISTANCE AS MANDATED BY PUBLIC LAW 116-134 (134 STAT. 276)

Pursuant to section 2(b)(1) of the Support for Veterans in Effective Apprenticeships Act of 2019 (Pub. L. 116-134, 134 Stat. 276), by signing these program standards, the program sponsor official whose name is subscribed below assures and acknowledges to the U.S. Department of Labor's Office of Apprenticeship the following regarding certain G.I. Bill and other VA-administered educational assistance referenced below (and described in greater detail at the VA's website at: https://www.va.gov/education/eligibility) for which current apprentices and/or apprenticeship program candidates may be eligible:

(1) The program sponsor is aware of the availability of educational assistance for a veteran or other eligible individual under chapters 30 through 36 of title 38, United States Code, for use in connection with a registered apprenticeship program;

(2) The program sponsor will make a good faith effort to obtain approval for educational assistance described in paragraph (1) above for, at a minimum, each program location that employs or recruits an veteran or other eligible individual for educational assistance under chapters 30 through 36 of title 38, United States Code; and

(3) The program sponsor will not deny the application of a qualified candidate who is a veteran or other individual eligible for educational assistance described in paragraph (1) above for the purpose of avoiding making a good faith effort to obtain approval as described in paragraph (2) above.

NOTE: The aforementioned requirements of Public Law 116-134 shall apply to "any program applying to become a registered apprenticeship program on or after the date that is 180 days after the date of enactment of this Act" (i.e., September 22, 2020). Accordingly, apprenticeship programs that were registered by a Registration Agency before September 22, 2020, are not subject to these requirements.

SECTION XXVII - OFFICIAL ADOPTION OF APPRENTICESHIP STANDARDS

These Bitwise Industries Apprenticeship Program standards have, therefore, been adopted and agreed upon under the Federal *29 CFR §§ 29 and 30* and the California Shelley-Maloney Apprentice Labor Standards Act of 1939 (Labor Code § 3073), California Code of Regulations Title 8 §§ 212 and 215 **on this 15th day of July, 2021.**

Sponsor(s) may designate the appropriate person(s) to sign the standards on their behalf.

_____
Signature of Management *(designee)*

_____
Signature of Management *(designee)*

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Printed Name

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WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Application Developer

O*NET-SOC CODE: 15-1252.00   RAPIDS CODE: 1129 CB

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

1.	TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.	TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.	RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Analyze & Design Applications		
Competencies	**Date Completed**	**Initial**
• Knowledge of the organization's design principles used for application development. • Knowledge of the process to review and provide input to design specifications.		

Develop Applications		
Competencies	**Date Completed**	**Initial**
• Knowledge of coding languages used by the organization. • Knowledge of the application development process including coding, documentation and testing. • Knowledge of how to review an application's code as part of a peer group. • Knowledge of how to revise and adapt existing code to meet emerging requirements • Ability to write and document the code used by the organization for application development • Ability to integrate application subsystems • Ability to revise and adapt existing code to meet emerging requirements • Ability to understand log monitoring and carry out preventative health checks		

Test & Validate Applications		
Competencies	**Date Completed**	**Initial**
• Ability to perform unit testing and rework code. • Ability to conduct a peer review of an application's code. • Ability to create and test prototypes as pare to the development process • Knowledge of the process for developing a test plan for an application • Ability to perform validation testing on new applications • Knowledge of how to validate user documentation • Knowledge of how to interpret test results and make recommendations • Knowledge of how to support user acceptance testing		

Implement, Support & Maintain Applications		
Competencies	**Date Completed**	**Initial**
- Knowledge of how to develop a release plan for an application. - Knowledge of how to develop a user training plan for an application. - Knowledge of how to transition an application to a new system. - Knowledge of how to maintain and support applications - Knowledge of how to evaluate, implement and document application enhancements - Knowledge of how to perform system maintenance for application security - Knowledge of common information security risks and threats		

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Application Developer
O*NET CODE 15-1252.00   RAPIDS Code: 1129 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Application Developer O*NET CODE 15-1252.00 RAPIDS Code: 1129CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Website for Beginners: 34 hours III. Mobile Friendly Sites: 34 hours IV. Intro to Javascript: 34 hours V. Angular 2: 34 hours

Appendix A-2

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL
INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Cyber Security Analyst

O*NET-SOC CODE: 15-1212.00   RAPIDS CODE: 2050 CB

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

1.   TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Develop computer or information security policies or procedures.		
Competencies	**Date Completed**	**Initial**
● Develop plans to safeguard computer files against accidental or unauthorized modification, destruction, or disclosure and to meet emergency data processing needs.		

Update knowledge about emerging industry or technology trends.		
Competencies	**Date Completed**	**Initial**
● Monitor current reports of computer viruses to determine when to update virus protection systems.		

Implement security measures for computer or information systems.		
Competencies	**Date Completed**	**Initial**
● Encrypt data transmissions and erect firewalls to conceal confidential information as it is being transmitted and to keep out tainted digital transfers.		
● Modify computer security files to incorporate new software, correct errors, or change individual access status.		
● Review violations of computer security procedures and discuss procedures with violators to ensure violations are not repeated.		
● Maintain permanent fleet cryptologic and carry-on direct support systems required in special land, sea surface and subsurface operations.		

Test computer system operations to ensure proper functioning.		
Competencies	**Date Completed**	**Initial**
● Perform risk assessments and execute tests of data processing system to ensure functioning of data processing activities and security measures.		

Collaborate with others to resolve information technology issues.		
Competencies	**Date Completed**	**Initial**
● Confer with users to discuss issues such as computer data access needs, security violations, and programming changes.		

Document operational procedures.		
Competencies	**Date Completed**	**Initial**
● Document computer security and emergency measures policies, procedures, and tests.		

Troubleshoot issues with computer applications or systems.		
Competencies	**Date Completed**	**Initial**
● Confer with users to discuss issues such as computer data access needs, security violations, and programming changes.		

Coordinate project activities with other personnel or departments.		
Competencies	**Date Completed**	**Initial**
● Coordinate implementation of computer system plan with establishment personnel and outside vendors.		

Monitor the security of digital information.		
Competencies	**Date Completed**	**Initial**
● Monitor use of data files and regulate access to safeguard information in computer files.		

Train others in computer interface or software use.		
Competencies	**Date Completed**	**Initial**
● Train users and promote security awareness to ensure system security and to improve server and network efficiency.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Cyber Security Analyst
O*NET CODE 15-1212.00   RAPIDS Code: 2050 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Cyber Security Analyst O*NET CODE 15-1212.00 RAPIDS Code: 2050 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Computer Systems Networking and Telecommunications: 34 hours III. Healthcare Information Privacy Assurance and Security: 34 hours IV. Network and System Administration/Administrator: 34 hours V. Information Technology: 34 hours

Appendix A-3

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL
INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

iOS Development

O*NET-SOC CODE: 15-1251.00   RAPIDS CODE: 0811 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Modify software programs to improve performance.		
Competencies	**Date Completed**	**Initial**
• Write, analyze, review, and rewrite programs in Swift, using workflow chart and diagram, and applying knowledge of computer capabilities, subject matter, and symbolic logic.		
• Perform or direct revision, repair, or expansion of existing programs in Swift to increase operating efficiency or adapt to new requirements.		
• Write, update, and maintain computer programs or software packages in Swift to handle specific jobs such as tracking inventory, storing or retrieving data, or controlling other equipment.		

Write computer programming code.		
Competencies	**Date Completed**	**Initial**
• Write, analyze, review, and rewrite programs in Swift, using workflow chart and diagram, and applying knowledge of computer capabilities, subject matter, and symbolic logic.		
• Write, update, and maintain computer programs or software packages in Swift to handle specific jobs such as tracking inventory, storing or retrieving data, or controlling other equipment.		

Test software performance.		
Competencies	**Date Completed**	**Initial**
• Correct errors by making appropriate changes and rechecking the program to ensure that the desired results are produced.		
• Conduct trial runs of programs and software applications to be sure they will produce the desired information and that the instructions are correct.		

Resolve computer software problems.		
Competencies	**Date Completed**	**Initial**
● Correct errors by making appropriate changes and rechecking the program to ensure that the desired results are produced.		

Collaborate with others to resolve information technology issues.		
Competencies	**Date Completed**	**Initial**
● Consult with managerial, engineering, and technical personnel to clarify program intent, identify problems, and suggest changes.		
● Consult with and assist computer operators or system analysts to define and resolve problems in running computer programs.		

Develop diagrams or flow charts of system operation.		
Competencies	**Date Completed**	**Initial**
● Prepare detailed workflow charts and diagrams that describe input, output, and logical operation, and convert them into a series of instructions coded in a computer language, focusing on the coding language of Swift.		

Develop models of information or communications systems.		
Competencies	**Date Completed**	**Initial**
● Prepare detailed workflow charts and diagrams that describe input, output, and logical operation, and convert them into a series of instructions coded in a computer language, focusing on the coding language of Swift.		

Document design or development procedures.		
Competencies	**Date Completed**	**Initial**
● Compile and write documentation of program development and subsequent revisions, inserting comments in the coded instructions so others can understand the program.		

Train others in computer interface or software use.		
Competencies	**Date Completed**	**Initial**
● Train subordinates in programming and program coding, focusing on the coding language of Swift.		
● Train users on the use and function of computer programs.		

Test computer system operations to ensure proper functioning.		
Competencies	**Date Completed**	**Initial**
● Perform systems analysis and programming tasks to maintain and control the use of computer systems software as a systems programmer.		
● Investigate whether networks, workstations, the central processing unit of the system, or peripheral equipment are responding to a program's instructions.		

Prepare instruction manuals.		
Competencies	**Date Completed**	**Initial**
● Write or contribute to instructions or manuals to guide end users.		

Assign duties or work schedules to employees.		
Competencies	**Date Completed**	**Initial**
● Assign, coordinate, and review work and activities of programming personnel.		

Manage information technology projects or system activities.		
Competencies	**Date Completed**	**Initial**
● Assign, coordinate, and review work and activities of programming personnel.		

Supervise information technology personnel.		
Competencies	**Date Completed**	**Initial**
● Assign, coordinate, and review work and activities of programming personnel.		

Design websites or web applications.		
Competencies	**Date Completed**	**Initial**
● Develop Web sites, using the coding language of Swift.		

Develop computer or online applications.		
Competencies	**Date Completed**	**Initial**
● Develop Web sites, using the coding language of Swift.		

Teach others to use computer equipment or hardware.		
Competencies	**Date Completed**	**Initial**
● Train users on the use and function of computer programs.		

Coordinate project activities with other personnel or departments.		
Competencies	**Date Completed**	**Initial**
● Collaborate with computer manufacturers and other users to develop new programming methods.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

iOS Development
O*NET CODE 15-1251.00   RAPIDS Code: 0811 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

iOS Development O*NET CODE 15-1251.00 RAPIDS Code: 0811 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Computer Programming, Specific Applications*: 34 hours III. Computer Graphics: 34 hours IV. Computer Software Technology/Technician: 34 hours V. Computer Programming, Vendor/Product Certification*: 34 hours

***Supplemental instruction will focus on the coding language of Swift.**

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Salesforce Admin

O*NET-SOC CODE: 15-1242.00   RAPIDS CODE: 1130 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Assess database performance.		
Competencies	**Date Completed**	**Initial**
• Test programs or databases, correct errors, and make necessary modifications.		
• Test changes to database applications or systems.		

Modify software programs to improve performance.		
Competencies	**Date Completed**	**Initial**
• Test programs or databases, correct errors, and make necessary modifications.		

Implement security measures for computer or information systems.		
Competencies	**Date Completed**	**Initial**
• Plan, coordinate and implement security measures to safeguard information in computer files against accidental or unauthorized damage, modification or disclosure.		
• Specify users and user access levels for each segment of database.		

Develop computer or information security policies or procedures.		
Competencies	**Date Completed**	**Initial**
• Plan, coordinate and implement security measures to safeguard information in computer files against accidental or unauthorized damage, modification or disclosure.		

Create databases to store electronic data.		
Competencies	**Date Completed**	**Initial**
● Modify existing databases and database management systems or direct programmers and analysts to make changes.		
● Plan and install upgrades of database management system software to enhance database performance.		

Update computer database information.		
Competencies	**Date Completed**	**Initial**
● Modify existing databases and database management systems or direct programmers and analysts to make changes.		
● Select and enter codes to monitor database performance and to create production database.		

Develop database parameters or specifications.		
Competencies	**Date Completed**	**Initial**
● Write and code logical and physical database descriptions and specify identifiers of database to management system or direct others in coding descriptions.		
● Revise company definition of data as defined in data dictionary.		

Write computer programming code.		
Competencies	**Date Completed**	**Initial**
● Write and code logical and physical database descriptions and specify identifiers of database to management system or direct others in coding descriptions.		

Develop performance metrics or standards related to information technology.		
Competencies	**Date Completed**	**Initial**
● Develop standards and guidelines to guide the use and acquisition of software and to protect vulnerable information.		

Read documents to gather technical information.		
Competencies	**Date Completed**	**Initial**
• Review procedures in database management system manuals for making changes to database.		
• Review workflow charts developed by programmer analyst to understand tasks computer will perform, such as updating records.		

Train others in computer interface or software use.		
Competencies	**Date Completed**	**Initial**
• Train users and answer questions.		

Coordinate software or hardware installation.		
Competencies	**Date Completed**	**Initial**
• Approve, schedule, plan, and supervise the installation and testing of new products and improvements to computer systems, such as the installation of new databases.		

Develop detailed project plans.		
Competencies	**Date Completed**	**Initial**
• Approve, schedule, plan, and supervise the installation and testing of new products and improvements to computer systems, such as the installation of new databases.		

Analyze data to identify trends or relationships among variables.		
Competencies	**Date Completed**	**Initial**
• Identify and evaluate industry trends in database systems to serve as a source of information and advice for upper management.		

Analyze market or customer related data.		
Competencies	**Date Completed**	**Initial**
● Identify and evaluate industry trends in database systems to serve as a source of information and advice for upper management.		

Develop models of information or communications systems.		
Competencies	**Date Completed**	**Initial**
● Develop data model describing data elements and how they are used, following procedures and using pen, template or computer software.		

Evaluate utility of software or hardware technologies.		
Competencies	**Date Completed**	**Initial**
● Identify, evaluate and recommend hardware or software technologies to achieve desired database performance.		

Install computer software.		
Competencies	**Date Completed**	**Initial**
● Plan and install upgrades of database management system software to enhance database performance.		

Provide recommendations to others about computer hardware.		
Competencies	**Date Completed**	**Initial**
● Identify, evaluate and recommend hardware or software technologies to achieve desired database performance.		

Provide technical support for software maintenance or use.		
Competencies	**Date Completed**	**Initial**
● Provide technical support to junior staff or clients.		

Test computer system operations to ensure proper functioning.		
Competencies	**Date Completed**	**Initial**
● Test changes to database applications or systems.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Salesforce Admin
O*NET CODE 15-1242.00   RAPIDS Code: 1130 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Salesforce Admin O*NET CODE 15-1242.00 RAPIDS Code: 1130 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Salesforce for Admin: 34 hours III. Data Modeling/Warehousing and Database Administration: 34 hours IV. Computer and Information Sciences, General: 34 hours V. Computer and Information Systems Security/Auditing/Information Assurance: 34 hours

Appendix A-5

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

Project Management

O*NET-SOC CODE: 15-1299.09   RAPIDS CODE: 1048 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Manage information technology projects or system activities.		
Competencies	**Date Completed**	**Initial**
● Manage project execution to ensure adherence to budget, schedule, and scope.		
● Schedule and facilitate meetings related to information technology projects.		
● Direct or coordinate activities of project personnel.		
● Develop and manage work breakdown structure (WBS) of information technology projects.		

Collaborate with others to resolve information technology issues.		
Competencies	**Date Completed**	**Initial**
● Confer with project personnel to identify and resolve problems.		

Develop detailed project plans.		
Competencies	**Date Completed**	**Initial**
● Initiate, review, or approve modifications to project plans.		
● Develop or update project plans for information technology projects including information such as project objectives, technologies, systems, information specifications, schedules, funding, and staffing.		
● Develop and manage work breakdown structure (WBS) of information technology projects.		

Collect data about customer needs.		
Competencies	**Date Completed**	**Initial**
● Assess current or future customer needs and priorities by communicating directly with customers, conducting surveys, or other methods.		

Supervise information technology personnel.		
Competencies	**Date Completed**	**Initial**
● Direct or coordinate activities of project personnel.		
● Monitor the performance of project team members, providing and documenting performance feedback.		

Analyze security of systems, network, or data.		
Competencies	**Date Completed**	**Initial**
● Perform risk assessments to develop response strategies.		

Develop guidelines for system implementation.		
Competencies	**Date Completed**	**Initial**
● Develop implementation plans that include analyses such as cost-benefit or return on investment (ROI).		

Identify information technology project resource requirements.		
Competencies	**Date Completed**	**Initial**
● Identify need for initial or supplemental project resources.		

Analyze data to identify trends or relationships among variables.		
Competencies	**Date Completed**	**Initial**
● Prepare project status reports by collecting, analyzing, and summarizing information and trends.		

Prepare analytical reports.		
Competencies	**Date Completed**	**Initial**
● Prepare project status reports by collecting, analyzing, and summarizing information and trends.		

Participate in staffing decisions.		
Competencies	**Date Completed**	**Initial**
● Identify, review, or select vendors or consultants to meet project needs.		
● Coordinate recruitment or selection of project personnel.		

Manage budgets for appropriate resource allocation.		
Competencies	**Date Completed**	**Initial**
● Develop and manage annual budgets for information technology projects.		

Develop information communication procedures.		
Competencies	**Date Completed**	**Initial**
● Establish and execute a project communication plan.		

Assign duties or work schedules to employees.		
Competencies	**Date Completed**	**Initial**
● Assign duties, responsibilities, and spans of authority to project personnel.		

Coordinate resource procurement activities.		
Competencies	**Date Completed**	**Initial**
● Negotiate with project stakeholders or suppliers to obtain resources or materials.		

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Project Management
O*NET CODE 15-1299.09   RAPIDS Code: 1048 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Project Management O*NET CODE 15-1299.00 RAPIDS Code: 1048 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Effective Scope Management for Project Managers: 34 hours III. Foundations in Cost Management for Project Managers: 34 hours IV. Effective communication for Project Managers: 34 hours V. Scheduling concepts for Project Managers: 34 hours

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Tier 1 Tech Support

O*NET-SOC CODE: 15-1232.00   RAPIDS CODE: 1131 CB

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

1. TYPE OF OCCUPATION

☐ Time-based   ☒ Competency-based   ☐ Hybrid

2. TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Provide technical support for software maintenance or use.		
Competencies	**Date Completed**	**Initial**
● Answer user inquiries regarding computer software or hardware operation to resolve problems.		

Monitor computer system performance to ensure proper operation.		
Competencies	**Date Completed**	**Initial**
● Oversee the daily performance of computer systems.		

Read documents to gather technical information.		
Competencies	**Date Completed**	**Initial**
● Read technical manuals, confer with users, or conduct computer diagnostics to investigate and resolve problems or to provide technical assistance and support.		
● Inspect equipment and read order sheets to prepare for delivery to users.		

Collaborate with others to resolve information technology issues.		
Competencies	**Date Completed**	**Initial**
● Read technical manuals, confer with users, or conduct computer diagnostics to investigate and resolve problems or to provide technical assistance and support.		

Resolve computer software problems.		
Competencies	**Date Completed**	**Initial**
● Read technical manuals, confer with users, or conduct computer diagnostics to investigate and resolve problems or to provide technical assistance and support.		

Install computer hardware.		
Competencies	**Date Completed**	**Initial**
● Set up equipment for employee use, performing or ensuring proper installation of cables, operating systems, or appropriate software.		
● Install and perform minor repairs to hardware, software, or peripheral equipment, following design or installation specifications.		

Teach others to use computer equipment or hardware.		
Competencies	**Date Completed**	**Initial**
● Develop training materials and procedures, or train users in the proper use of hardware or software.		

Train others in computer interface or software use.		
Competencies	**Date Completed**	**Initial**
● Develop training materials and procedures, or train users in the proper use of hardware or software.		

Test software performance.		
Competencies	**Date Completed**	**Initial**
● Enter commands and observe system functioning to verify correct operations and detect errors.		

Modify software programs to improve performance.		
Competencies	**Date Completed**	**Initial**
● Modify and customize commercial programs for internal needs.		

Test computer hardware performance.		
Competencies	**Date Completed**	**Initial**
● Inspect equipment and read order sheets to prepare for delivery to users.		

Document operational activities.		
Competencies	**Date Completed**	**Initial**
● Maintain records of daily data communication transactions, problems and remedial actions taken, or installation activities.		

Install computer software.		
Competencies	**Date Completed**	**Initial**
● Install and perform minor repairs to hardware, software, or peripheral equipment, following design or installation specifications.		

Maintain computer hardware.		
Competencies	**Date Completed**	**Initial**
● Install and perform minor repairs to hardware, software, or peripheral equipment, following design or installation specifications.		

Evaluate utility of software or hardware technologies.		
Competencies	**Date Completed**	**Initial**
● Prepare evaluations of software or hardware, and recommend improvements or upgrades.		

Provide recommendations to others about computer hardware.		
Competencies	**Date Completed**	**Initial**
● Prepare evaluations of software or hardware, and recommend improvements or upgrades.		

Recommend changes to improve computer or information systems.		
Competencies	**Date Completed**	**Initial**
● Prepare evaluations of software or hardware, and recommend improvements or upgrades.		

Collaborate with others to determine design specifications or details.		
Competencies	**Date Completed**	**Initial**
● Confer with staff, users, and management to establish requirements for new systems or modifications.		

Conduct research to gain information about products or processes.		
Competencies	**Date Completed**	**Initial**
● Conduct office automation feasibility studies, including workflow analysis, space design, or cost comparison analysis.		

Update knowledge about emerging industry or technology trends.		
Competencies	**Date Completed**	**Initial**
● Read trade magazines and technical manuals, or attend conferences and seminars to maintain knowledge of hardware and software.		

Participate in staffing decisions.		
Competencies	**Date Completed**	**Initial**
● Hire, supervise, and direct workers engaged in special project work, problem-solving, monitoring, and installation of data communication equipment and software.		

Supervise information technology personnel.		
Competencies	Date Completed	Initial
● Hire, supervise, and direct workers engaged in special project work, problem-solving, monitoring, and installation of data communication equipment and software.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Tier 1 Tech Support
O*NET CODE 15-1232.00   RAPIDS Code: 1131 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Tier 1 Tech Support O*NET CODE 15-1232.00 RAPIDS Code: 1131 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Troubleshooting and Customer Care: 34 hours III. Networking: 34 hours IV. Operating Systems: 34 hours V. System Administration: 34 hours

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Quality Assurance

O*NET-SOC CODE: 15-1211.00   RAPIDS CODE: 2017 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5.   WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Coordinate software or hardware installation.		
Competencies	**Date Completed**	**Initial**
● Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.		

Monitor computer system performance to ensure proper operation.		
Competencies	**Date Completed**	**Initial**
● Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.		

Test software performance.		
Competencies	**Date Completed**	**Initial**
● Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.		

Troubleshoot issues with computer applications or systems.		
Competencies	**Date Completed**	**Initial**
● Troubleshoot program and system malfunctions to restore normal functioning.		

Modify software programs to improve performance.		
Competencies	**Date Completed**	**Initial**
● Expand or modify system to serve new purposes or improve work flow.		
● Assess the usefulness of pre-developed application packages and adapt them to a user environment.		

Apply information technology to solve business or other applied problems.		
Competencies	**Date Completed**	**Initial**
● Use the computer in the analysis and solution of business problems, such as development of integrated production and inventory control and cost analysis systems.		

Write computer programming code.		
Competencies	**Date Completed**	**Initial**
● Use object-oriented programming languages, as well as client and server applications development processes and multimedia and Internet technology.		

Collaborate with others to determine design specifications or details.		
Competencies	**Date Completed**	**Initial**
● Consult with management to ensure agreement on system principles.		
● Confer with clients regarding the nature of the information processing or computation needs a computer program is to address.		

Analyze data to identify or resolve operational problems.		
Competencies	**Date Completed**	**Initial**
● Review and analyze computer printouts and performance indicators to locate code problems, and correct errors by correcting codes.		

Manage information technology projects or system activities.		
Competencies	**Date Completed**	**Initial**
● Supervise computer programmers or other systems analysts or serve as project leaders for particular systems projects.		

Supervise information technology personnel.

Competencies	Date Completed	Initial
• Supervise computer programmers or other systems analysts or serve as project leaders for particular systems projects.		

Configure computer networks.

Competencies	Date Completed	Initial
• Coordinate and link the computer systems within an organization to increase compatibility so that information can be shared.		

Develop testing routines or procedures.

Competencies	Date Completed	Initial
• Develop, document, and revise system design procedures, test procedures, and quality standards.		

Document design or development procedures.

Competencies	Date Completed	Initial
• Develop, document, and revise system design procedures, test procedures, and quality standards.		

Train others in computer interface or software use.

Competencies	Date Completed	Initial
• Train staff and users to work with computer systems and programs.		

Develop diagrams or flow charts of system operation.

Competencies	Date Completed	Initial
• Define the goals of the system and devise flow charts and diagrams describing logical operational steps of programs.		

Evaluate utility of software or hardware technologies.

Competencies	Date Completed	Initial
• Assess the usefulness of pre-developed application packages and adapt them to a user environment.		

Provide technical support for software maintenance or use.		
Competencies	**Date Completed**	**Initial**
• Provide staff and users with assistance solving computer-related problems, such as malfunctions and program problems.		

Read documents to gather technical information.		
Competencies	**Date Completed**	**Initial**
• Read manuals, periodicals, and technical reports to learn how to develop programs that meet staff and user requirements.		

Analyze project data to determine specifications or requirements.		
Competencies	**Date Completed**	**Initial**
• Analyze information processing or computation needs and plan and design computer systems, using techniques such as structured analysis, data modeling, and information engineering.		

Design integrated computer systems.		
Competencies	**Date Completed**	**Initial**
• Analyze information processing or computation needs and plan and design computer systems, using techniques such as structured analysis, data modeling, and information engineering.		

Identify information technology project resource requirements.		
Competencies	Date Completed	Initial
• Determine computer software or hardware needed to set up or alter system.		

Collect data about customer needs.		
Competencies	**Date Completed**	**Initial**
• Interview or survey workers, observe job performance, or perform the job to determine what information is processed and how it is processed.		

Estimate time or monetary resources needed to complete projects.		
Competencies	**Date Completed**	**Initial**
● Prepare cost-benefit and return-on-investment analyses to aid in decisions on system implementation.		

Provide recommendations to others about computer hardware.		
Competencies	**Date Completed**	**Initial**
● Recommend new equipment or software packages.		

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Quality Assurance
O*NET CODE 15-1211.00   RAPIDS Code: 2017 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Quality Assurance O*NET CODE 15-1211.00 RAPIDS Code: 2017 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Websites for Beginners: 34 hours III. Mobile Friendly Sites: 34 hours IV. Web Application Testing: 34 hours V. Advanced QA Skills: 34 hours

Appendix A-8

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Solutions Engineer/ Architect

O*NET-SOC CODE: 15-1252.00   RAPIDS CODE: 1129 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5.   WORK PROCESS SCHEDULE   (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Analyze & Design Applications		
Competencies	**Date Completed**	**Initial**
- Knowledge of the organization's design principles used for application development. - Knowledge of the process to review and provide input to design specifications.		

Develop Applications		
Competencies	**Date Completed**	**Initial**
- Knowledge of coding languages used by the organization. - Knowledge of the application development process including coding, documentation and testing. - Knowledge of how to review an application's code as part of a peer group. - Knowledge of how to revise and adapt existing code to meet emerging requirements - Ability to write and document the code used by the organization for application development - Ability to integrate application subsystems - Ability to revise and adapt existing code to meet emerging requirements - Ability to understand log monitoring and carry out preventative health checks		

Design and develop solutions to complex applications problems		
Competencies	**Date Completed**	**Initial**
- Communicate and collaborate with clients and software developers to determine design specifications and project resource requirements. - Provide advice on project costs, design concepts, or design changes. - Document design specifications, installation instructions, and other system-related information. - Evaluate current or emerging technologies to consider factors such as cost, portability, compatibility, or usability.		

Implement, Support & Maintain Applications		
Competencies	**Date Completed**	**Initial**
- Knowledge of how to develop a release plan for an application. - Knowledge of how to develop a user training plan for an application. - Knowledge of how to transition an application to a new system. - Knowledge of how to maintain and support applications - Knowledge of how to evaluate, implement and document application enhancements - Knowledge of how to perform system maintenance for application security - Knowledge of common information security risks and threats		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Solution Engineer/ Architect
O*NET CODE 15-1252.00   RAPIDS Code: 1129 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Solution Engineer / Architect O*NET CODE 15-1252.00 RAPIDS Code: 1129 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Websites for Beginners: 34 hours III. Mobile Friendly Sites: 34 hours IV. Javascript for Beginners: 34 hours V. ReactJS: 34 hours

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

WordPress

O*NET-SOC CODE: 15-1252.00   RAPIDS CODE: 1129 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

<u>Wage Schedule:</u>

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Analyze project data to determine specifications or requirements.		
Competencies	**Date Completed**	**Initial**
● Analyze information to determine, recommend, and plan installation of a new system or modification of an existing system.		
● Analyze user needs and software requirements to determine feasibility of design within time and cost constraints.		
● Obtain and evaluate information on factors such as reporting formats required, costs, or security needs to determine hardware configuration.		

Modify software programs to improve performance.		
Competencies	**Date Completed**	**Initial**
● Design, develop and modify software systems, using scientific analysis and mathematical models to predict and measure outcomes and consequences of design.		
● Modify existing software to correct errors, adapt it to new hardware, or upgrade interfaces and improve performance.		

Supervise information technology personnel.		
Competencies	**Date Completed**	**Initial**
● Supervise and assign work to programmers, designers, technologists, technicians, or other engineering or scientific personnel.		
● Supervise the work of programmers, technologists and technicians and other engineering and scientific personnel.		

Apply mathematical principles or statistical approaches to solve problems in scientific or applied fields.		
Competencies	**Date Completed**	**Initial**
• Design, develop and modify software systems, using scientific analysis and mathematical models to predict and measure outcomes and consequences of design.		

Assess database performance.		
Competencies	**Date Completed**	**Initial**
• Store, retrieve, and manipulate data for analysis of system capabilities and requirements.		

Assign duties or work schedules to employees.		
Competencies	**Date Completed**	**Initial**
• Supervise and assign work to programmers, designers, technologists, technicians, or other engineering or scientific personnel.		

Collaborate with others to determine design specifications or details.		
Competencies	**Date Completed**	**Initial**
• Confer with systems analysts, engineers, programmers and others to design systems and to obtain information on project limitations and capabilities, performance requirements and interfaces.		

Collaborate with others to resolve information technology issues.		
Competencies	**Date Completed**	**Initial**
• Confer with data processing or project managers to obtain information on limitations or capabilities for data processing projects.		

Communicate project information to others.		
Competencies	**Date Completed**	**Initial**
● Prepare reports or correspondence concerning project specifications, activities, or status.		

Coordinate software or hardware installation.		
Competencies	**Date Completed**	**Initial**
● Coordinate installation of software system.		

Design software applications.		
Competencies	**Date Completed**	**Initial**
● Design, develop and modify software systems, using scientific analysis and mathematical models to predict and measure outcomes and consequences of design.		

Develop performance metrics or standards related to information technology.		
Competencies	**Date Completed**	**Initial**
● Determine system performance standards.		

Develop testing routines or procedures.		
Competencies	**Date Completed**	**Initial**
● Develop or direct software system testing or validation procedures, programming, or documentation.		

Document technical specifications or requirements.		
Competencies	**Date Completed**	**Initial**
● Specify power supply requirements and configuration.		

Identify information technology project resource requirements.		
Competencies	**Date Completed**	**Initial**
● Specify power supply requirements and configuration.		

Manage information technology projects or system activities.		
Competencies	**Date Completed**	**Initial**
• Develop or direct software system testing or validation procedures, programming, or documentation.		

Monitor computer system performance to ensure proper operation.		
Competencies	**Date Completed**	**Initial**
• Monitor functioning of equipment to ensure system operates in conformance with specifications.		

Prepare data for analysis.		
Competencies	**Date Completed**	**Initial**
• Store, retrieve, and manipulate data for analysis of system capabilities and requirements.		

Provide recommendations to others about computer hardware.		
Competencies	**Date Completed**	**Initial**
• Recommend purchase of equipment to control dust, temperature, or humidity in area of system installation.		

Provide technical support for software maintenance or use.		
Competencies	**Date Completed**	**Initial**
• Consult with customers or other departments on project status, proposals, or technical issues, such as software system design or maintenance.		

Teach others to use computer equipment or hardware.		
Competencies	**Date Completed**	**Initial**
• Train users to use new or modified equipment.		

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

WordPress
O*NET CODE 15-1252.00   RAPIDS Code: 1129 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

WordPress	
WordPress O*NET CODE 15-1252.00 RAPIDS Code: 1129 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Websites for Beginners: 34 hours III. Mobile Friendly Sites: 34 hours IV. WordPress: 34 hours V. WordPress SEO: 34 hours

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

.NET

O*NET-SOC CODE: 15-1251.00   RAPIDS CODE: 0811 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Modify software programs to improve performance.		
Competencies	**Date Completed**	**Initial**
● Write, analyze, review, and rewrite programs in the .NET framework, using workflow chart and diagram, and applying knowledge of computer capabilities, subject matter, and symbolic logic.		
● Perform or direct revision, repair, or expansion of existing programs in the .NET framework to increase operating efficiency or adapt to new requirements.		
● Write, update, and maintain computer programs or software packages in the .NET framework to handle specific jobs such as tracking inventory, storing or retrieving data, or controlling other equipment.		

Write computer programming code.		
Competencies	**Date Completed**	**Initial**
● Write, analyze, review, and rewrite programs in the .NET framework, using workflow chart and diagram, and applying knowledge of computer capabilities, subject matter, and symbolic logic.		
● Write, update, and maintain computer programs or software packages in the .NET framework to handle specific jobs such as tracking inventory, storing or retrieving data, or controlling other equipment.		

Test software performance.		
Competencies	**Date Completed**	**Initial**
● Correct errors by making appropriate changes and rechecking the program to ensure that the desired results are produced.		
● Conduct trial runs of programs and software applications to be sure they will produce the desired information and that the instructions are correct.		

Resolve computer software problems.		
Competencies	**Date Completed**	**Initial**
● Correct errors by making appropriate changes and rechecking the program to ensure that the desired results are produced.		

Collaborate with others to resolve information technology issues.		
Competencies	**Date Completed**	**Initial**
● Consult with managerial, engineering, and technical personnel to clarify program intent, identify problems, and suggest changes.		
● Consult with and assist computer operators or system analysts to define and resolve problems in running computer programs.		

Develop diagrams or flow charts of system operation.		
Competencies	**Date Completed**	**Initial**
● Prepare detailed workflow charts and diagrams that describe input, output, and logical operation, and convert them into a series of instructions coded in the .NET framework.		

Develop models of information or communications systems.		
Competencies	**Date Completed**	**Initial**
● Prepare detailed workflow charts and diagrams that describe input, output, and logical operation, and convert them into a series of instructions coded in the .NET framework.		

Document design or development procedures.		
Competencies	**Date Completed**	**Initial**
● Compile and write documentation of program development and subsequent revisions, inserting comments in the coded instructions so others can understand the program.		

Train others in computer interface or software use.

Competencies	Date Completed	Initial
● Train subordinates in programming and program coding, focusing on the .NET framework.		
● Train users on the use and function of computer programs.		

Test computer system operations to ensure proper functioning.

Competencies	Date Completed	Initial
● Perform systems analysis and programming tasks to maintain and control the use of computer systems software as a systems programmer.		
● Investigate whether networks, workstations, the central processing unit of the system, or peripheral equipment are responding to a program's instructions.		

Prepare instruction manuals.

Competencies	Date Completed	Initial
● Write or contribute to instructions or manuals to guide end users.		

Assign duties or work schedules to employees.

Competencies	Date Completed	Initial
● Assign, coordinate, and review work and activities of programming personnel.		

Manage information technology projects or system activities.

Competencies	Date Completed	Initial
● Assign, coordinate, and review work and activities of programming personnel.		

Supervise information technology personnel.		
Competencies	**Date Completed**	**Initial**
● Assign, coordinate, and review work and activities of programming personnel.		

Design websites or web applications.		
Competencies	**Date Completed**	**Initial**
● Develop Web sites, using the .NET framework.		

Develop computer or online applications.		
Competencies	**Date Completed**	**Initial**
● Develop Web sites, using the .NET framework.		

Teach others to use computer equipment or hardware.		
Competencies	**Date Completed**	**Initial**
● Train users on the use and function of computer programs.		

Coordinate project activities with other personnel or departments.		
Competencies	**Date Completed**	**Initial**
● Collaborate with computer manufacturers and other users to develop new programming methods.		

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

.NET
O*NET CODE 15-1251.00   RAPIDS Code: 0811 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

.NET O*NET CODE 15-1251.00 RAPIDS Code: 0811 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Computer Programming, Specific Applications*: 34 hours III. Computer Graphics: 34 hours IV. Computer Software Technology/Technician: 34 hours V. Computer Programming, Vendor/Product Certification*: 34 hours

*Supplemental instruction will focus on the coding framework of .NET.

Appendix A-11

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Inside Sales

O*NET-SOC CODE: 41-4011.00   RAPIDS CODE: 2087 CB

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

1. TYPE OF OCCUPATION

    ☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

<u>Wage Schedule:</u>

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Negotiate prices or other sales terms.

Competencies	Date Completed	Initial
● Negotiate prices or terms of sales or service agreements.		

Contact current or potential customers to promote products or services.

Competencies	Date Completed	Initial
● Visit establishments to evaluate needs or to promote product or service sales.		
● Contact new or existing customers to discuss how specific products or services can meet their needs.		

Gather customer or product information to determine customer needs.

Competencies	Date Completed	Initial
● Visit establishments to evaluate needs or to promote product or service sales.		
● Obtain building blueprints or specifications for use by engineering departments in bid preparations.		

Sell products or services.

Competencies	Date Completed	Initial
● Sell service contracts for technical or scientific products.		
● Sell technical and scientific products that are environmentally sound or designed for environmental remediation.		

Prepare sales or other contracts.

Competencies	Date Completed	Initial
● Prepare and submit sales contracts for orders.		

Process sales or other transactions.		
Competencies	**Date Completed**	**Initial**
● Prepare and submit sales contracts for orders.		

Maintain records of customer accounts.		
Competencies	**Date Completed**	**Initial**
● Maintain customer records, using automated systems.		

Answer customer questions about goods or services.		
Competencies	**Date Completed**	**Initial**
● Answer customers' questions about products, prices, availability, or credit terms.		

Estimate costs or terms of sales.		
Competencies	**Date Completed**	**Initial**
● Quote prices, credit terms, or other bid specifications.		
● Compute customer's installation or production costs and estimate savings from new services, products, or equipment.		

Explain technical product or service information to customers.		
Competencies	**Date Completed**	**Initial**
● Emphasize product features, based on analyses of customers' needs and on technical knowledge of product capabilities and limitations.		
● Inform customers of estimated delivery schedules, service contracts, warranties, or other information pertaining to purchased products.		
● Present information to customers about the energy efficiency or environmental impact of scientific or technical products.		

Demonstrate products to consumers.		
Competencies	**Date Completed**	**Initial**
● Demonstrate the operation or use of technical or scientific products.		

Discuss design or technical features of products or services with technical personnel.		
Competencies	**Date Completed**	**Initial**
● Provide feedback to product design teams so that products can be tailored to clients' needs.		
● Consult with engineers regarding technical problems with products.		

Develop content for sales presentations or other materials.		
Competencies	**Date Completed**	**Initial**
● Prepare sales presentations or proposals to explain product specifications or applications.		

Recommend products or services to customers.		
Competencies	**Date Completed**	**Initial**
● Select or assist customers in selecting products based on customer needs, product specifications, and applicable regulations.		

Arrange delivery of goods or services.		
Competencies	**Date Completed**	**Initial**
● Verify that delivery schedules meet project deadlines.		
● Arrange for installation and testing of products or machinery.		

Maintain records of sales or other business transactions.		
Competencies	**Date Completed**	**Initial**
● Complete expense reports, sales reports, or other paperwork.		

Prepare financial documents, reports, or budgets.

Competencies	Date Completed	Initial
• Complete expense reports, sales reports, or other paperwork.		

Identify potential customers.

Competencies	Date Completed	Initial
• Identify prospective customers, using business directories, leads from existing clients, participation in organizations, or trade show or conference attendance.		

Share sales-related or market information with colleagues.

Competencies	Date Completed	Initial
• Collaborate with colleagues to exchange information, such as selling strategies or marketing information.		

Coordinate sales campaigns.

Competencies	Date Completed	Initial
• Initiate sales campaigns to meet sales and production expectations.		

Advise customers on the use of products or services.

Competencies	Date Completed	Initial
• Provide customers with ongoing technical support.		
• Advise customers on product usage to improve production.		
• Inform customers about issues related to responsible use and disposal of products, such as waste reduction or product or byproduct recycling or disposal.		

Verify customer credit information.

Competencies	Date Completed	Initial
• Verify customer credit ratings.		

Study product information to acquire professional knowledge.		
Competencies	**Date Completed**	**Initial**
● Study documentation or other information for new scientific or technical products.		

Distribute promotional literature or samples to customers.		
Competencies	**Date Completed**	**Initial**
● Stock or distribute resources, such as samples or promotional or educational materials.		

Stock products or parts.		
Competencies	**Date Completed**	**Initial**
● Stock or distribute resources, such as samples or promotional or educational materials.		

Attend events to develop professional knowledge.		
Competencies	**Date Completed**	**Initial**
● Attend sales or trade meetings or read related publications to obtain information about market conditions, business trends, environmental regulations, or industry developments.		

Monitor market conditions or trends.		
Competencies	**Date Completed**	**Initial**
● Attend sales or trade meetings or read related publications to obtain information about market conditions, business trends, environmental regulations, or industry developments.		

Monitor sales activities.		
Competencies	**Date Completed**	**Initial**
● Visit establishments, such as pharmacies, to determine product sales.		

Deliver promotional presentations to current or prospective customers.		
Competencies	**Date Completed**	**Initial**
● Present information to customers about the energy efficiency or environmental impact of scientific or technical products.		

Explain financial information to customers.		
Competencies	**Date Completed**	**Initial**
● Research and convey information to customers about tax benefits or government rebates associated with energy-efficient scientific or technical products, such as solar panels.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Inside Sales
O*NET CODE 41-4011.00   RAPIDS Code: 2087 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

| **Inside Sales**
O*NET CODE 41-4011.00
RAPIDS Code: 2087 CB
144 total course hours | I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours
II. Selling Skills and Sales Operations: 34 hours
III. Pipeline Management: 34 hours
IV. Prioritizing Prospect Contacts: 34 hours
V. Building Rapport with Prospects: 34 hours |

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Call Center Agent

O*NET-SOC CODE: 43-4051.00   RAPIDS CODE: 1008 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

<u>Wage Schedule:</u>

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Discuss goods or services information with customers or patrons.		
Competencies	**Date Completed**	**Initial**
● Confer with customers by telephone or in person to provide information about products or services, take or enter orders, cancel accounts, or obtain details of complaints.		

Respond to customer problems or complaints.		
Competencies	**Date Completed**	**Initial**
● Check to ensure that appropriate changes were made to resolve customers' problems.		
● Resolve customers' service or billing complaints by performing activities such as exchanging merchandise, refunding money, or adjusting bills.		
● Obtain and examine all relevant information to assess validity of complaints and to determine possible causes, such as extreme weather conditions that could increase utility bills.		

Maintain financial or account records.		
Competencies	**Date Completed**	**Initial**
● Keep records of customer interactions or transactions, recording details of inquiries, complaints, or comments, as well as actions taken.		

Refer customers to appropriate personnel.		
Competencies	**Date Completed**	**Initial**
● Refer unresolved customer grievances to designated departments for further investigation.		

Calculate costs of goods or services.		
Competencies	**Date Completed**	**Initial**
● Determine charges for services requested, collect deposits or payments, or arrange for billing.		

Collect deposits, payments or fees.		
Competencies	**Date Completed**	**Initial**
● Determine charges for services requested, collect deposits or payments, or arrange for billing.		

Execute sales or other financial transactions.		
Competencies	**Date Completed**	**Initial**
● Resolve customers' service or billing complaints by performing activities such as exchanging merchandise, refunding money, or adjusting bills.		

Prepare documentation for contracts, transactions, or regulatory compliance.		
Competencies	**Date Completed**	**Initial**
● Complete contract forms, prepare change of address records, or issue service discontinuance orders, using computers.		

Provide notifications to customers or patrons.		
Competencies	**Date Completed**	**Initial**
● Contact customers to respond to inquiries or to notify them of claim investigation results or any planned adjustments.		

Coordinate operational activities.		
Competencies	**Date Completed**	**Initial**
● Order tests that could determine the causes of product malfunctions.		

Promote products, services, or programs.		
Competencies	**Date Completed**	**Initial**
● Solicit sales of new or additional services or products.		

Review customer insurance information.		
Competencies	**Date Completed**	**Initial**
● Review claims adjustments with dealers, examining parts claimed to be defective, and approving or disapproving dealers' claims.		
● Review insurance policy terms to determine whether a particular loss is covered by insurance.		

Inspect items for damage or defects.		
Competencies	**Date Completed**	**Initial**
● Review claims adjustments with dealers, examining parts claimed to be defective, and approving or disapproving dealers' claims.		

Recommend packing or shipping methods.		
Competencies	**Date Completed**	**Initial**
● Recommend improvements in products, packaging, shipping, service, or billing methods and procedures to prevent future problems.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Call Center Agent
O*NET CODE 43-4051.00   RAPIDS Code: 1008 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Call Center Agent O*NET CODE 43-4051.00 RAPIDS Code: 1008 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Customer Service Support/Call Center/Teleservice Operation: 34 hours III. Customer Rapport: 34 hours IV. CRM Training: 34 hours V. Agent Coaching: 34 hours

WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL

INSTRUCTION OUTLINE

WORK PROCESS SCHEDULE

Online Marketing

O*NET-SOC CODE: 13-1161.01   RAPIDS CODE: 2077 CB

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

1. TYPE OF OCCUPATION

☐   Time-based   ☒   Competency-based   ☐   Hybrid

2.   TERM OF APPRENTICESHIP

The term of the occupation is competency based twelve (12) months with an equivalent OJT attainment of 2000 hours, supplemented by the minimum required 144 hours of related instruction.

3.   RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is no more than five (5) Apprentices' to one (1) Journeyworker.

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 current hourly journeyworker wage rate, which is: $25.00/hr. Apprentices shall receive a starting wage no less than the applicable minimum wage or living wage (whichever is higher) for the County and City where the apprentice is working. Law establishes the effective date of the minimum wage and/or the living wage.

Wage Schedule:

1st 6 months: $17.00 per hour

2nd 6 months: $17.50 per hour

Completion of Apprenticeship: $25.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The committee will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. The committee will document pay increases of apprentices progressing through the learning competencies.

5. WORK PROCESS SCHEDULE (See below Work Process Schedule)

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agencies for approval.

On-the-Job Training (OJT) Competencies

Analyze website or related online data to track trends or usage.		
Competencies	**Date Completed**	**Initial**
● Collect and analyze Web metrics, such as visits, time on site, page views per visit, transaction volume and revenue, traffic mix, click-through rates, conversion rates, cost per acquisition, or cost per click.		
● Manage tracking and reporting of search-related activities and provide analyses to marketing executives.		
● Optimize Web site exposure by analyzing search engine patterns to direct online placement of keywords or other content.		
● Combine secondary data sources with keyword research to more accurately profile and satisfy user intent.		

Develop performance metrics or standards related to information technology.		
Competencies	**Date Completed**	**Initial**
● Identify appropriate Key Performance Indicators (KPIs) and report key metrics from digital campaigns.		

Design websites or web applications.		
Competencies	**Date Completed**	**Initial**
● Assist in setting up or optimizing analytics tools for tracking visitors' behaviors.		
● Coordinate with developers to optimize Web site architecture, server configuration, or page construction for search engine consumption and optimal visibility.		
● Improve search-related activities through ongoing analysis, experimentation, or optimization tests, using A/B or multivariate methods.		
● Optimize digital assets, such as text, graphics, or multimedia assets, for search engine optimization (SEO) or for display and usability on internet-connected devices.		
● Optimize shopping cart experience or Web site conversion rates against Key Performance Indicators (KPIs).		
● Develop transactional Web applications, using Web programming software and knowledge of programming languages, such as hypertext markup language (HTML) and extensible markup language (XML).		

Coordinate project activities with other personnel or departments.		
Competencies	**Date Completed**	**Initial**
● Coordinate with developers to optimize Web site architecture, server configuration, or page construction for search engine consumption and optimal visibility.		
● Coordinate sales or other promotional strategies with merchandising, operations, or inventory control staff to ensure product catalogs are current, accurate, and organized for best findability against user intent.		

Implement advertising or marketing initiatives.		
Competencies	**Date Completed**	**Initial**
● Conduct online marketing initiatives, such as paid ad placement, affiliate programs, sponsorship programs, email promotions, or viral marketing campaigns on social media Web sites.		
● Participate in the development or implementation of online marketing strategy.		
● Create content strategies for digital media.		
● Communicate and collaborate with merchants, Webmasters, bloggers, or online editors to strategically place hyperlinks.		
● Execute or manage social media campaigns to inform search marketing tactics.		
● Purchase or negotiate placement of listings in local search engines, directories, or digital mapping technologies.		
● Execute or manage banner, video, or other non-text link ad campaigns.		
● Execute and manage communications with digital journalists or bloggers.		

Collaborate with others to develop or implement marketing strategies.		
Competencies	**Date Completed**	**Initial**
● Participate in the development or implementation of online marketing strategy.		
● Manage tracking and reporting of search-related activities and provide analyses to marketing executives.		
● Communicate and collaborate with merchants, Webmasters, bloggers, or online editors to strategically place hyperlinks.		
● Collaborate with other marketing staff to integrate and complement marketing strategies across multiple sales channels.		
● Propose online or multiple-sales-channel campaigns to marketing executives.		
● Collaborate with Web, multimedia, or art design staffs to create multimedia Web sites or other internet content that conforms to brand and company visual format.		

Evaluate utility of software or hardware technologies.		
Competencies	**Date Completed**	**Initial**
● Evaluate new emerging media or technologies and make recommendations for their application within Internet marketing or search marketing campaigns.		
● Identify, evaluate, or procure hardware or software for implementing online marketing campaigns.		

Recommend changes to improve computer or information systems.		
Competencies	**Date Completed**	**Initial**
● Evaluate new emerging media or technologies and make recommendations for their application within Internet marketing or search marketing campaigns.		

Analyze market or customer related data.		
Competencies	**Date Completed**	**Initial**
● Conduct market research analysis to identify search query trends, real-time search and news media activity, popular social media topics, electronic commerce trends, market opportunities, or competitor performance.		

Provide customer service to clients or users.		
Competencies	**Date Completed**	**Initial**
● Implement online customer service processes to ensure positive and consistent user experiences.		
● Resolve product availability problems in collaboration with customer service staff.		

Design computer modeling or simulation programs.		
Competencies	**Date Completed**	**Initial**
● Conduct financial modeling for online marketing programs or Web site revenue forecasting.		

Coordinate resource procurement activities.		
Competencies	**Date Completed**	**Initial**
● Coordinate sales or other promotional strategies with merchandising, operations, or inventory control staff to ensure product catalogs are current, accurate, and organized for best findability against user intent.		
● Assist in the evaluation or negotiation of contracts with vendors or online partners.		

Collaborate with others to determine design specifications or details.		
Competencies	**Date Completed**	**Initial**
● Define product requirements, based on market research analysis, in collaboration with user interface design and engineering staff.		

Write computer programming code.		
Competencies	**Date Completed**	**Initial**
• Develop transactional Web applications, using Web programming software and knowledge of programming languages, such as hypertext markup language (HTML) and extensible markup language (XML).		

Prepare graphics or other visual representations of information.		
Competencies	**Date Completed**	**Initial**
• Prepare electronic commerce designs or prototypes, such as storyboards, mock-ups, or other content, using graphics design software.		

Maintain the inventory of equipment.		
Competencies	**Date Completed**	**Initial**
• Identify, evaluate, or procure hardware or software for implementing online marketing campaigns.		

Develop computer or information security policies or procedures.		
Competencies	**Date Completed**	**Initial**
• Assist in the development of online transaction or security policies.		

Develop specifications or procedures for website development or maintenance.		
Competencies	**Date Completed**	**Initial**
• Identify and develop commercial or technical specifications, such as usability, pricing, checkout, or data security, to promote transactional internet-enabled commerce functionality.		

Develop guidelines for system implementation.		
Competencies	**Date Completed**	**Initial**
• Identify methods for interfacing Web application technologies with enterprise resource planning or other system software.		

Update knowledge about emerging industry or technology trends.		
Competencies	**Date Completed**	**Initial**
● Keep abreast of government regulations and emerging Web technology to ensure regulatory compliance by reviewing current literature, talking with colleagues, participating in educational programs, attending meetings or workshops, or participating in professional organizations or conferences.		

6.   RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Online Marketing
O*NET CODE 13-1161.01   RAPIDS Code: 2077 CB

Term of Apprenticeship: 12 months / 144 hours RSI
Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Online Marketing O*NET CODE 13-1161.01 RAPIDS Code: 2077 CB 144 total course hours	I. Orientation (Safety, Harassment Training, Diversity Training): 8 hours II. Online Marketing for Beginners: 34 hours III. Search Engine Optimization: 34 hours IV. Social Media Marketing: 34 hours V. Pay Per Click Advertising: 34 hours

Appendix B-1

Federal

ETA-671 APPRENTICESHIP AGREEMENT AND

U.S. DEPARTMENT OF LABOR, OFFICE OF APPRENTICESHIP APPLICATION FOR CERTIFICATION OF COMPLETION OF APPRENTICESHIP

ETA TEAR OFF VOLUNTARY DISABILITY DISCLOSURE

ETA 9039 COMPLAINT FORM

Program Registration and

Apprenticeship Agreement
Office of Apprenticeship

U.S. Department of Labor

Employment and Training Administration

This agreement does not constitute a certification under Title 29 Code of Federal Regulations (CFR) Part 5 for the employment of the apprentice on federally financed or assisted construction projects. Current certifications must be obtained from the Office of Apprenticeship (OA) or the recognized State Apprenticeship Agency.	The program sponsor and apprentice agree to the terms of the Apprenticeship Standards incorporated as part of this agreement and in accordance with Title 29 CFR Parts 29 and 30. The sponsor's Apprenticeship Standards are attached and hereby incorporated into this agreement as they exist on the date of the agreement. These Standards may be amended during the period of this agreement with the consent of the parties to the agreement. This agreement may be terminated by either of the parties, citing cause(s), with notification to the registration agency, in compliance with Title 29 CFR Part 29.

PART A: TO BE COMPLETED BY APPRENTICE. NOTE TO SPONSOR: PART A SHOULD ONLY BE FILLED OUT BY APPRENTICE.

1. Name (Last, First, Middle) and Address *Social Security Number - -
(No., Street, City, State, Zip Code, Telephone Number)

Answer Both A and B (Voluntary) (Definitions on reverse)	5. Veteran Status (Mark one)
4. a. Ethnic Group (Mark one) ☐ Hispanic or Latino ☐ Not Hispanic or Latino	☐ Non-Veteran ☐ Veteran

b. Race (Mark one or more)
☐ American Indian or Alaska native
☐ Asian
☐ Black or African American
☐ Native Hawaiian or other Pacific Islander
☐ White

6. Education Level (Mark one)
☐ Less than 9th grade
☐ 9th to 12th grade, no diploma
☐ High School graduate or GED
☐ Some College or Associate's degree
☐ Bachelor's degree
☐ Master's degree
☐ Doctorate or Prof. degree

2. Date of Birth (Mo., Day, Yr.)

3. Sex (Mark one) ☐ Male ☐ Female

Employment Status (Mark one) ☐ New Employee ☐ Existing Employee

Career Connection (Mark one) (Instructions on reverse) ☐ None ☐ Pre-Apprenticeship ☐ Technical Training School ☐ Military Veterans
☐ Job Corps ☐ YouthBuild ☐ HUD/STEP-UP ☐ Career Center Referral ☐ School-to-Registered Apprenticeship

8. Signature of Apprentice Date	9. Signature of Parent/Guardian (if minor) Date

PART B: SPONSOR: EXCEPT FOR ITEMS 6, 7, 8, 10a. - 10c, REMAINDER OF ITEMS REPOPULATED FROM PROGRAM REGISTRATION.

1. Sponsor Program No.

Sponsor Name and Address (No. Street, City, County, State, Zip Code)

2a Occupation (The work processes listed in the standards are part of this agreement).	2b Occupation Code: 2b.1. Interim Credentials Only applicable to Part B, 3.b. and 3.c. (Mark one) ☐ Yes ☐ No

3. Occupation Training Approach (Mark one) 3a. ☐ Time-Based 3b. ☐ Competency-Based 3c. ☐ Hybrid	4. Term (Hrs., Mos., Yrs.)	5. Probationary Period (Hrs., Mos., Yrs.)

6. Credit for Previous Experience (Hrs., Mos., Yrs.)	7. Term Remaining (Hrs., Mos., Yrs.)	8. Date Apprenticeship Begins

9. Related Instruction (Number of Hours Per Year)	9b. Apprentice Wages for Related Instruction ☐ Will Be Paid ☐ Will Not Be Paid	9c. Related Training Instruction Source

Wages: (Instructions on reverse)

10a. Prior Hourly Wage $_____   10b. Apprentice's Entry Hourly Wage $_____   10c. Journeyworker's Hourly Wage $_____

Check Box	Period 1	2	3	4	5	6	7	8	9	10
Term ☐ Hrs., ☐ Mos., or ☐ Yrs.										
Wage Rate (Mark one) % ☐ or $ ☐										

12. Signature of Sponsor's Representative(s) Date Signed	13. Name and Address of Sponsor Designee to Receive Complaints
Signature of Sponsor's Representative(s) Date Signed	

Registration Agency and Address	2. Signature (Registration Agency)	3. Date Registered

Apprentice Identification Number (Definition on reverse):

Program Definitions and/or Instructions:

Part A
Item 4.a. Definition - Ethnic Group:
    Hispanic or Latino. A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."

Item 4.b. Definitions - Race:
    American Indian and Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment. This category includes people who indicate their race as "American Indian or Alaska Native" or report entries such as Navajo, Blackfeet, Inupiat, Yup'ik, or Central American Indian groups or South American Indian groups.
    Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. This includes people who reported detailed Asian responses such as: "Asian Indian," "Chinese," "Filipino," "Korean," "Japanese," "Vietnamese," and "Other Asian" or provide other detailed Asian responses.
    Black or African American. A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black or African American," or report entries such as African American, Kenyan, Nigerian, or Haitian.
    Native Hawaiian and Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. It includes people who reported their race as "Fijian," "Guamanian or Chamorro," "Marshallese," "Native Hawaiian," "Samoan," "Tongan," and "Other Pacific Islander" or provide other detailed Pacific Islander responses.
    White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who indicate their race as "White" or report entries such as Irish, German, Italian, Lebanese, Arab, Moroccan, or Caucasian.

Item 7b. Instructions:
Indicate any career connection (definitions follow). Enter "None" if no career connection applies.

    Pre-Apprenticeship. A program or set of strategies designed to prepare individuals to enter and succeed in a Registered Apprenticeship program which has or have a documented partnership(s) with a Registered Apprenticeship program(s).
    Technical Training School. Graduates trained in an occupation from a technical training school related to an occupation registered by the program sponsor and who meet the minimum qualifications for Registered Apprenticeship.
    Military Veterans. Veterans that completed a military technical training school and/or elect to participate in the Building and Construction Trades Helmets to Hardhats Program or trained in an occupation while in the military related to an occupation registered by the program sponsor and who meet the minimum qualifications for Registered Apprenticeship.
    Job Corps. Graduates trained in an occupation from a federally funded Job Corps center related to an occupation registered by the program sponsor and who meet the minimum qualifications for Registered Apprenticeship.
    YouthBuild. Graduates trained in an occupation from a federally funded YouthBuild program related to an occupation registered
by the sponsor and who meet the minimum qualifications for Registered Apprenticeship.
    HUD/STEP-UP. Applicants who successfully participated in the U.S. Department of Housing and Urban Development Step-Up program and received an apprenticeship experience which meets the minimum qualifications for Registered Apprenticeship.
    Career Center Referral. Includes career center participants referred to the Registered Apprenticeship Program and/or apprentice(s)
that receive workforce system funded services that support their participation in a Registered Apprenticeship program. This may
Include the use of individual training accounts and/or on-the-job training reimbursements.
    School-to-Registered Apprenticeship. Program designed to allow high school youth ages 16 - 17 to enter a Registered Apprenticeship
program and continue after graduation with full credit given for the high school portion.

Part B
Item 2.b.1. Interim Credentials. Based on program standards that utilize the competency-based or hybrid training approach, and, upon request of the program sponsor, the credentials are issued as certificates by the Registration Agency. Interim credentials provide certification of competency attainment by an apprentice.

Item 3.   **Occupation Training Approach.** The program sponsor decides which of the three training methods to use in the program as follows:
3.a.   Time-Based Training Approach - apprentice required to complete a specific number of hours of on-the-job learning (OJL) and related training instruction (RTI).
3.b.   Competency-Based Training Approach - apprentice required to demonstrate competency in defined subject areas and does not require any specific hours of OJL or RTI; or
3.c.   Hybrid-Training Approach - apprentice required to complete a minimum number of OJL and RTI hours and demonstrate competency in the defined subject areas.

Item 4.   **Term (Hrs., Mos., Yrs.).** Based on the program sponsor's training approach. See Part B, Item 4. Available in the terms of the Apprenticeship Standards.

Item 5.   **Probationary Period (Hrs. Mos., Yrs.)** Probation period cannot exceed 25 percent of the length of the program or one year, whichever is shorter.

Item 7. **Term Remaining (Hrs., Mos., Yrs.).** **Under** Part B, Item 6., Credit for Previous Experience (Hrs., Mos., Yrs.) is determined by the program sponsor. The Term Remaining (Hrs., Mos., Yrs.) in Part B, Item 7., for the apprentice to complete the apprenticeship is based on the training approach indicated in Part B, Item 3. The term remaining is available in the terms of the Apprenticeship Standards.

Item 10. **Wage Instructions:**
10a. Prior hourly wage: sponsor enters the individual's hourly wage in the quarter prior to becoming an apprentice.
10b. Apprentice's entry hourly wage (hourly dollar amount paid): sponsor enters this apprentice's entry hourly wage.
10c. Journeyworker's wage: sponsor enters wage per hour.
10d. Term: sponsor enters in each box the apprentice schedule of pay for each advancement period based on the program sponsor's training approach. See Part B, Item 3., and is available in the terms of the Apprenticeship Standards.
10e. Percent or dollar amount: sponsor marks one.
Note: 10c. If the employer is signatory to a collective bargaining agreement, the journeyworker's wage rate in the applicable collective bargaining agreement is identified. Apprenticeship program sponsors not covered by a collective bargaining agreement must identify a minimum journeyworker's hourly wage rate that will be the basis for the progressive wage schedule identified in Item 10e,of this agreement.

      10d. The employer agrees to pay the hourly wage rate identified in this section to the apprentice each period of the apprenticeship based on the successful completion of the training approach and related instructions outlined in the Apprenticeship Standards. The period may be expressed in hours, months, or years.

      10e. The wage rates are expressed either as a percent or in dollars and cents of the journeyworker's wage depending on the industry.

Example (Time-based approach) - 3 YEAR APPRENTICESHIP PROGRAM

Term	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Hrs., Mos., Yrs.	1000 Hrs.	1000 Hrs.	1000 Hrs.	1000 Hrs.	1000 Hrs.	1000 Hrs.
%	55	60	65	70	80	90

Example (Time-based approach) - 4 YEAR APPRENTICESHIP PROGRAM

Term	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8
Hrs., Mos., Yrs.	6 Mos.	6 Mos.	6 Mos.	6 Mos.	6 Mos.	6 Mos.	6 Mos.	6 Mos.
	50	55	60	65	70	75	80	90

Item 13. Identifies the individual or entity responsible for receiving complaints (Code of Federal Regulations, CFR, Title 29 part 29.7(k)).

Part C.
Item 4. Definition: The Registered Apprenticeship Partners Information Data System (RAPIDS) encrypts the apprentice's social security number and generates a unique identification number to identify the apprentice. It replaces the social security number to protect the apprentice's privacy.

Voluntary Disability Disclosure   OMB No. 1205-0223 Expiration Date: 03/31/2023

Please check one of the boxes below:

☐   YES, I HAVE A DISABILITY (or previously had a disability)

☐   NO, I DON'T HAVE A DISABILITY

☐   I DON'T WISH TO ANSWER

Your name: _____

Date: _____

Why are you being asked to complete this form?

Because we are a sponsor of a registered apprenticeship program and participate in the National Registered Apprenticeship System that is regulated by the U.S. Department of Labor, we must reach out to, enroll, and provide equal opportunity in apprenticeship to qualified people with disabilities.[1] To help us learn how well we are doing, we are asking you to tell us if you have a disability or if you ever had a disability. Completing this form is voluntary, but we hope that you will choose to fill it out. If you are applying for apprenticeship, any answer you give will be kept private and will not be used against you in any way.

If you already are an apprentice within our registered apprenticeship program, your answer will not be used against you in any way. Because a person may become disabled at any time, we are required to ask all of our apprentices at the time of enrollment, and then remind them yearly, that they may update their information. You may voluntarily self-identify as having a disability on this form without fear of any punishment because you did not identify as having a disability earlier.

How do I know if I have a disability?

You are considered to have a disability if you have a physical or mental impairment or medical condition that substantially limits a major life activity, or if you have a history or record of such an impairment or medical condition. Disabilities include, but are not limited to: blindness, deafness, cancer, diabetes, epilepsy, autism, cerebral palsy, HIV/AIDS, schizophrenia, muscular dystrophy, bipolar disorder, major depression, multiple sclerosis (MS), missing limbs or partially missing limbs, post-traumatic stress disorder (PTSD), obsessive compulsive disorder, impairments requiring the use of a wheelchair, and intellectual disability (previously called mental retardation).

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[1] Part 30 – Equal Employment Opportunity in Apprenticeship. For more information about this form or the equal employment obligations of Federal contractors, visit the U.S. Department of Labor's Office of Apprenticeship website at https://www.doleta.gov/OA/eeo/.

Figure 1 Program Registration

Figure 2

| Complaint Form – Equal Employment Opportunity in Apprenticeship Programs | **U.S. Department of Labor**
Employment and Training Administration
Office of Apprenticeship | |

Instructions: Before completing this form, please read all instructions, including the Privacy Act statement below. Use this form to file a complaint of discrimination. This form constitutes notification that a formal Equal Employment Opportunity Complaint is being filed with the U.S. Department of Labor (USDOL).

Privacy Act Notice: The Privacy Act of 1974 requires that the USDOL provide the following statements to each individual from whom it requests information.

> The authority for collecting this information is the National Apprenticeship Act of 1937.
> The submission of this information is voluntary.
> The information is used to process complaints under the above Act.

A copy of this complaint will be provided to the sponsor against whom it is filed. The information collected may be verified with persons who have knowledge pertinent to the complaint, may be used in the course of settlement negotiations with the sponsor and/or in the course of presenting evidence at a hearing, or may be disclosed to other agencies with jurisdiction over the complaint. Only the text of your complaint will be disclosed to the Sponsor and/or Employer. To the extent permitted by law, your actual name and address will not be disclosed.

> Failure to provide the information will restrict the action the USDOL can take on your behalf.

Non-Retaliation: Federal (Office of Apprenticeship, "OA") regulations require sponsors and employers to take all necessary steps to assure that there is no retaliation against any person who files an employment discrimination complaint or alleging a violation of 29 C.F.R. Part 30; opposes employment discrimination; provides information to, assists, or participates in any manner in employment discrimination proceedings; or otherwise takes action that he or she has a right to take under applicable laws and regulations. This includes any intimidation, threat, coercion or discrimination. Please notify the OA State Representative immediately if any alleged attempt at retaliation is made and file a Complaint Form.

All complaints must be filed within 300 days of the alleged discrimination or alleged failure to follow equal opportunity standards. Exceptions to this time frame must be fully justified and approved by the USDOL.

Name of Complainant: _____

Street Address: _____

City: _____

State: _____ ZIP Code:_____

Telephone No: _____

Apprenticeship Program Sponsor: _____

Street Address: _____

City: _____ State: _____ ZIP Code: _____

Date of discrimination or failure to follow equal opportunity standards: _____

Appendix B-2

State of California

DIVISION OF APPRENTICESHIP STANDARDS

DAS 1 Form, APPRENTICESHIP AGREEMENT

AND

DAS 104 FORM, APPLICATION FOR CERTIFICATION OF COMPLETION OF APPRENTICESHIP

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			A	B	C	D	E	Official Use
			Ethnic	Dependents	Education	Yrs Employ	Disabled	STATUS

D.O. FILE NUMBER

State of California -- Department of Industrial Relations -- DIVISION OF APPRENTICESHIP STANDARDS

APPRENTICE AGREEMENT

APPRENTICE LAST NAME,	FIRST NAME	MIDDLE	SOCIAL SECURITY NUMBER

APPRENTICE ADDRESS (NUMBER AND STREET / CITY, STATE & ZIP)

BIRTHDATE (mm/dd/yyyy)

VETERAN

Yes: ☐   No: ☐

GENDER

Female ☐   Male ☐   Nonbinary ☐

OCCUPATION

O*Net code

TERM OF APPRENTICESHIP

STRAIGHT TIME

Hours Within   Months   Hours per day: 8   Hours per week: 40

This agreement is between the above named apprentice employed by the below named employer, and

PROGRAM SPONSOR

AGREEMENT: The undersigned parties mutually agree that they will use their best endeavors to secure employment and training for the apprentice. The apprentice agrees to perform satisfactorily all work and learning assignments. The provisions of the Apprenticeship Standards for the above occupation adopted by the program sponsor and approved by the Chief of the Division of Apprenticeship Standards, are hereby made a part of this agreement. An official copy of the standards is on file in the headquarters of the Division of Apprenticeship Standards. This apprentice agreement will continue in effect until the training is completed or otherwise terminated in accordance with the standards.

The apprentice commences participation under these standards on the date of execution of this agreement by the Apprentice. The signatory apprentice is credited with having _____ months toward completion of the term of apprenticeship. The apprentice is expected to complete training on or about _____, 20_____ , upon satisfactory completion of the total remaining hours of on-the-job training and hours and/or units of related and supplemental instruction.

APPRENTICE: I, the undersigned apprentice, understand and agree that there is a valid and reasonable necessity that those academic records accumulated throughout related and supplemental instruction during my period of apprenticeship be made available to the apprenticeship committee. Further, I agree to release to the apprenticeship committee any other academic records which I feel may enhance my status as an apprentice.

I, the undersigned apprentice, hereby request that the Administrator of Apprenticeship terminate any other apprenticeship agreements in which I am currently registered.

Executed this _____ day of _____ , 20 _____ by _____

DAY   MONTH   YEAR   SIGNATURE OF APPRENTICE

AGREED TO BY THE EMPLOYER

SIGNATURE OF PARENT OR GUARDIAN (IF APPRENTICE IS 16 OR 17)

AGREED TO AND APPROVED BY, FOR THE COMMITTEE

SIGNATURE OF EMPLOYER OR ITS REPRESENTATIVE   TITLE

NAME OF EMPLOYER

SIGNATURE -- SECRETARY / CHAIR / COORDINATOR   DATE

ADDRESS

ACCEPTED BY DAS

SIGNATURE -- APPRENTICESHIP CONSULTANT   DATE

for unilateral programs only]
  This agreement is approved by _____   for the Administrator of Apprenticeship

DAS 1 (REV. 6/19)   APPRENTICE AGREEMENT

CALIFORNIA APPRENTICE QUESTIONNAIRE
(USE INK OR BALLPOINT PEN)

A Ethnic or Race Derivation (Check only one)

1 ☐ WHITE (Not of Hispanic Origin) -- A person having origins in any of the original peoples of Europe, North Africa or the Middle East.

2 ☐ BLACK (Not of Hispanic Origin) -- A person having origins in any of the Black racial groups of Africa.

ASIAN OR PACIFIC ISLANDER -- A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands. The area includes, for example, China, Japan, Korea and Samoa.

A	☐	Asian	Asian Indian
B	☐	Asian	Bangladeshi
C	☐	Asian	Chinese
D	☐	Asian	Cambodian
6	☐	Asian	Filipino
E	☐	Asian	Hmong
I	☐	Asian	Indonesian
J	☐	Asian	Japanese
K	☐	Asian	Korean
L	☐	Asian	Laotian
M	☐	Asian	Malaysian
P	☐	Asian	Pakistani
R	☐	Asian	Sri Lankan
T	☐	Asian	Taiwanese
U	☐	Asian	Thai
V	☐	Asian	Vietnamese
F	☐	Native Hawaiian	Fijian
G	☐	Native Hawaiian	Guamanian
H	☐	Native Hawaiian	Hawaiian
S	☐	Native Hawaiian	Samoan
W	☐	Native Hawaiian	Tongan

4 ☐ AMERICAN INDIAN OR ALASKAN NATIVE -- A person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition.

7 ☐ HISPANIC -- A person of Mexican, Puerto Rican, Cuban, South Central American or other Spanish culture or origin, regardless of race.

(Labor Code, § 151)

B Number of Dependents (Do not count yourself)

0	☐	None	4	☐	Four
1	☐	One	5	☐	Five
2	☐	Two	6	☐	Six of More
3	☐	Three			

(Voluntary)

C Highest Year of Education Completed

1	☐	8th Grade or less	6	☐	1 Year of College
2	☐	9th Grade	7	☐	2 Years of College
3	☐	10th Grade	8	☐	3 Years of College
4	☐	11th Grade	9	☐	4 or more Years of College
5	☐	12th Grade (or GED Certificate)			

(Labor Code § 3076.3)

D. Number of Years You Have Been Employed Full Time to Date (Except for Military Service)

0	☐	None
1	☐	Less Than 1 Year
2	☐	1 But Less Than 2 Years
3	☐	2 But Less Than 3 Years
4	☐	3 But Less Than 4 Years
5	☐	4 But Less Than 5 Years
6	☐	5 Years or More

(Voluntary)

E Do you consider yourself disabled? Yes ☐ No ☐

F List any Workforce Development Programs you have participated in:

Program	Date Attended

(E & F Voluntary)

Apprentice's Signature

REQUEST FOR STATE CERTIFICATE OF COMPLETION OF APPRENTICESHIP

DAS File Number

PROGRAM SPONSOR

FULL NAME OF COMPLETING APPRENTICE	FULL SOCIAL SECURITY NO.	Period 1		Period 2		Period 3		Period 4		Period 5		Period 6		Period 7		Period 8		Period 9		Period 10		TOTAL HOURS REQUIRED		COMPLETION DATE
		OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT/RSI	Hours	OJT HRS	RSI HRS	
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STATE CERTIFICATE OF COMPLETION OF APPRENTICESHIP

I CERTIFIED THAT ALL TRAINING HAS BEEN FULLY COMPLETED BY THE ABOVE NAMED APPRENTICES

224. WHEN ISSUED

(a) A "Certificate of Completion of Apprenticeship" attesting to the completion of an apprenticeship will be issued under the authority of the California Apprenticeship Council by the Division of Apprenticeship Standards upon receipt of such competent evidence as may be required by the California Apprenticeship Council.

(b) The certificate shall signify completion of an apprenticeship under standards and apprenticeship agreement approved under the State Apprenticeship Law and these regulations.

(c) Completion of the entire apprenticeship program by the apprentice shall be attested to by the local apprenticeship program sponsor. The local apprenticeship program sponsor will attest to the related and supplemental instruction after consulting with the appropriate school authorities regarding the completion of educational requirements of related and supplemental subjects.

SIGNATURE OF PROGRAM SPONSOR

205. DEFINITIONS

(i) "Competent Evidence" as used in Section 224 means a transcript or abstract of the record required to be maintained pursuant to Section 212.@(6), or an attestation by the apprentice program sponsor stating that all training has been fully completed, on forms to be provided by the Division of Apprenticeship Standards, demonstrating that the apprenticeship program has been fully completed, certified by the apprenticeship program sponsor and endorsed by a representative of the Division of Apprenticeship standards

TITLE _____ DATE _____

ENDORSED BY DAS CONSULTANT

Appendix C

AFFIRMATIVE ACTION PLAN

ADOPTED BY

Bitwise Industries Apprenticeship Program

AS REQUIRED UNDER TITLE 29, CODE OF FEDERAL REGULATIONS, PART 30

and CALIFORNIA CODE OF REGULATIONS

DEVELOPED IN COOPERATION WITH THE

U.S. DEPARTMENT OF LABOR – OFFICE OF APPRENTICESHIP

&

CALIFORNIA DIVISION OF APPRENTICESHIP STANDARDS

APPROVED BY: Click or tap here to enter text.
CA State Director, US DOL, Region 6
DATE APPROVED: Click or tap here to enter text.

APPROVED BY: Click or tap here to enter text.
Chief, Division of Apprenticeship Standards
DATE APPROVED: Click or tap here to enter text.

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SECTION I - INTRODUCTION

The sponsor enters this affirmative action plan (AAP) in good faith to promote equality of opportunity in its registered apprenticeship program. If women and/or minorities are underutilized in the apprenticeship program, the sponsor seeks to increase the recruitment of qualified women and/or minorities for possible selection into the apprenticeship program. The sponsor hereby adopts the equal opportunity pledge located in Section II and the AAP.

This AAP is a supplement to the apprenticeship standards. Any changes made by the sponsor to the AAP will become part of this written AAP, once approved by the Registration Agencies. The Geographical area of operation for this AAP is statewide.

SECTION II - EQUAL OPPORTUNITY PLEDGE - 29 CFR §§ 29.5(b)(21), 30.3(b), and CCR § 212 (a) (2)

The sponsor commits to the following equal opportunity pledge:

Bitwise Industries Apprenticeship Program will not discriminate against apprenticeship applicants or apprentices based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status of any person. Bitwise Industries Apprenticeship Program will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, part 30.

SECTION III - ANALYSES AND GOALS - LC §§ 3071, 3074.1, 3073.5, and CCR §212

To ensure full utilization of minorities and women in the apprenticeship program, the sponsor will conduct analyses to determine whether minorities and/or females are being underutilized and, if they are, will establish appropriate goals for the full utilization of minorities and/or women in apprenticeship. To determine whether underutilization exists, the sponsor will analyze at least the following five factors:

(1) The size of the working age minority and female (minority and nonminority) population in the program sponsor's labor market area;

(2) The size of the minority and female (minority and nonminority) labor force in the program sponsor's labor market area;

(3) The percentage of minority and female (minority and nonminority) participation as apprentices in the particular occupation as compared with the percentage of minorities and women (minority and nonminority) in the labor force in the program sponsor's labor market area;

(4) The percentage of minority and female (minority and nonminority) participation as journey workers employed by the employer or employers participating in the program as compared with the percentage of minorities and women (minority and nonminority) in the sponsor's labor market area and the extent to which the

sponsor should be expected to correct any deficiencies through the achievement of goals for the selection of apprentices; and
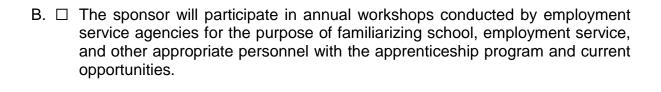
(5) The general availability of minorities and women (minority and nonminority) with present or potential capacity for apprenticeship in the program sponsor's labor market area.

Underutilization exists if there are fewer minorities and/or women in the registered occupation(s) in the sponsor's apprenticeship program than would reasonably be expected in view of all relevant factors. If the sponsor detects underutilization of minorities and/or women in its apprenticeship program in the registered occupation(s), it will establish goals for the selection of minority and/or female applicants. (For further instructions, see the attached affirmative action plan workforce analysis worksheet.) The sponsor will make good-faith efforts to meet its goals.

SECTION IV - OUTREACH AND POSITIVE RECRUITMENT- 29 CFR § 30.4(c), and Labor Code §§ 3073.5, 3074.1, 3095

The sponsor will undertake appropriate outreach and positive recruitment efforts that would reasonably be expected to increase minorities' and women's participation in apprenticeship by expanding the opportunities of minorities and women to become eligible for apprenticeship selection. The sponsor will set forth the specific steps it intends to take under each selected effort below. The sponsor will undertake a significant number of activities to enable it to meet its obligations under 29 CFR § 30.4(c).

A. The sponsor will disseminate information concerning the nature of the apprenticeship, requirements for admission to apprenticeship, availability of apprenticeship opportunities, sources of apprenticeship applications, and its equal opportunity policy to the following:
- Registration Agency
- Women's centers
- Local schools
- Employment service offices
- Other outreach programs and community organizations, including those that can effectively reach minorities and women
- Newspapers, including those that are circulated in minority communities and among women
- Social media outlets (Facebook, Twitter, Instagram, LinkedIn, etc.)

1. ☐ Sponsors of programs accepting applications only at specified intervals must disseminate the above information at least 30 days in advance of the earliest date for application at each interval.

2. ☒ Sponsors of programs customarily receiving applications throughout the year must disseminate the above information regularly, not less than semiannually.

B. ☐ The sponsor will participate in annual workshops conducted by employment service agencies for the purpose of familiarizing school, employment service, and other appropriate personnel with the apprenticeship program and current opportunities.

Attendance at local career expositions, at both local workforce agencies, high schools and colleges, allow for potential candidates to be aware of the opportunities and the programs available. In addition, outreach efforts are made within the classroom, in the form of career discussions/journeys with students. High Schools and Community Colleges are offered tours of the organization, where they get to interact with apprentices and journey workers, and can learn more about what they would be doing, and the programs.

C. ☐ The sponsor will cooperate with local school boards and vocational educational systems to develop programs for preparing students to meet the standards and criteria required to qualify for entry into the apprenticeship program.

Participation in advisory committees for individual high schools, school districts, community colleges and local vocational programs, to help guide and develop curriculum. Additionally, partner with these education establishments to offer guest speakers on careers, technical subjects and employer expectations, along with providing the opportunity for tours of facilities for both students and faculty and externship opportunities for faculty to learn processes and procedures and shadow apprentices to be better served at answering student's questions about the opportunities.

D. ☒ The sponsor will communicate its equal opportunity policy internally in such a manner as to foster understanding, acceptance, and support of the policy among the sponsor's various officers, supervisors, employees, and members and to encourage such persons to take the necessary action to aid in meeting its obligation under 29 CFR § 30.

E. ☒ The sponsor will engage in programs such as outreach for the positive recruitment and preparation of potential applicants for apprenticeships; where appropriate and feasible, such programs will provide for pretesting experience and training. In initiating and conducting these programs, the sponsor may be required to work with other sponsors and appropriate community organizations. The sponsor will also initiate programs to prepare women and encourage women to enter traditionally male programs.

F. ☒ The sponsor will encourage the establishment and utilization of programs of pre-apprenticeship, preparatory occupational training, or others designed to afford related work experience or prepare candidates for apprenticeship. The sponsor will make appropriate provisions in its AAP to assure that those who complete such programs are afforded full and equal opportunity for admission into the apprenticeship program.

G. ☐ The sponsor will utilize journeyworkers to assist in the implementation of its AAP. Journey worker's will participate in outreach events, such as talking at career fairs/expo's, guest speakers at student and faculty tours of organization.

H. ☒ The sponsor will grant advance standing or credit based on previously acquired experience, training, skills, or aptitude for all applicants equally.

I. ☒ The sponsor will take other appropriate action to ensure that the recruitment, selection, employment, and training of apprentices during their apprenticeship will be without discrimination because of race, color, religion, national origin, or sex (e.g., general publication of apprenticeship opportunities and advantages in advertisements, industry reports, articles, etc.; use of present minority and women apprentices and journey workers as recruiters; career counseling; periodic auditing of AAPs and activities; and development of reasonable procedures to ensure equal employment opportunity, including reporting systems, on-site reviews, and briefing sessions).

Bitwise Industries Apprenticeship Program will coordinate of conduct the following types of recruitment activities:

1. Include the phrase "Equal Opportunity Employer" or equivalent in printed employment advertisements.
2. Include minority and non-minority men and women when groups of employees are pictured in advertising, recruitment brochures, or similar publications.
3. Promote the program in media which reach women and minority communities.
4. Disseminate information on job opportunities and the program's affirmative action objectives to organizations representing minorities and women, among others.
5. Actively encourage minority and women employees, among others, to refer applicants.
6. Send minority and women apprentices and journey workers, among others, to participate in jobs fairs and related activities.
7. Incorporate special efforts to reach minorities and women in school recruiting efforts.
8. Incorporate special efforts to reach minorities and women in school recruiting efforts.
9. Recruit and employ minority and female summer interns, among others.
10. List openings with the Employment Development Department or America's Job Bank.

SECTION V - ANNUAL REVIEW OF AFFIRMATIVE ACTION PLAN – Labor Code § 3073.5

The sponsor will make an annual review of its current AAP and its overall effectiveness and will institute any revisions or modifications warranted. The review will analyze the affirmative action steps (independently and collectively) taken by the sponsor to evaluate their effectiveness in ensuring equal opportunity in all aspects of apprenticeship, including recruitment, selection, employment, and training. The sponsor will continually monitor these processes in order to identify and address any barriers to equal opportunity. This may require that the sponsor identify the need for new affirmative action efforts and/or deletion of ineffective existing activities. All changes to the AAP must be submitted to the Registration Agency for approval.

Bitwise Industries Apprenticeship Program hereby officially adopts this Affirmative Action Plan on this 15th day of July, 2021.

Sponsor(s) may designate the appropriate person(s) to sign the standards on their behalf.

_____

Signature of Management (*designee*)

Click or tap here to enter text.
Printed Name

_____

Signature of Management (*designee*)

Click or tap here to enter text.
Printed Name

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AFFIRMATIVE ACTION PLAN
WORKFORCE ANALYSIS WORKSHEET

</div>

A. SPONSOR INFORMATION

Program Number:	
Name of Sponsor:	
Address:	
City/State/Zip Code:	
Contact Person:	
Phone Number: Fax Number:	
E-Mail Address:	

B. OCCUPATIONAL INFORMATION

Occupation Title: O*NET-SOC RAPIDS Code:	

Type of Selection Method Used: X **Selection on basis of rank from pool of eligible applicants** ☐ **Random selection from pool of eligible applicants** ☐ **Selection from pool of current employees** ☐ **Alternative selection**
Labor Market Area Description: ☒ State ☐ SMA ☐ County

C. LABOR MARKET AREA AND OCCUPATIONAL PARTICIPATION DATA

C.1. Total Labor Force in Labor Market Area*		
Number of women:		45.1 % of labor force
Number of minorities:		51.6 % of labor force
C.2. Working Age Population in Labor Market Area*		
Number of women:		% of labor force
Number of minorities:		% of labor force
C.3. Apprentice Participation in Occupation in National Apprenticeship System*		
Number of women:		% of apprentices
Number of minorities:		% of apprentices
C.4. General Availability of Minorities and Women with the Present or Potential Capacity for Apprenticeship in relevant Labor Market Area**		
Number of women:		
Number of minorities:		

D. SPONSOR'S WORKFORCE DATA

D.1. Total Number of Journeyworkers Employed		
Number of women:		% of work force
Number of minorities:		% of work force
D.2. Total Percentage of Apprentices or of Applicant Pool (Depending on Selection Method Used)		
Percentage of women apprentices or women in applicant pool:		%
Percentage of minority apprentices or minorities in applicant pool:		%

E. ADDITIONAL RESOURCE DATA FOR CONSIDERATION IN ESTABLISHING GOALS

Industry Source Data	Minority rate of participation	Female rate of participation
E.1. Registered Apprenticeship Partners Information Data System (RAPIDS)***		
E.2. EEOC Occupational Employment Data****		

F. DETERMINATION OF UTILIZATION

Analysis	Yes	No
Minority underutilization:		
Female underutilization:		

G.   SPONSOR'S GOALS

The program sponsor proposes and agrees to make a good-faith effort to attain the goal of selecting 20 % minorities and/or 20 % women during the next EEO review cycle. These goals will not be used to discriminate against any qualified applicant based on race, color, religion, national origin, or sex.

The number of new apprentices to be hired during the next year (or selection period) is estimated to be _____.

H.   REGISTRATION AGENCY APPROVAL

Sponsor   **Registration Agency**

_____   _____

Sponsor's Signature   Registration Agency Signature

_____   _____

Typed Name   Typed Name

Executive Director   _____

Title   Title

_____   _____

Date Signed   Date Signed

Resources for obtaining labor market information:

*   http://bls.gov/

**   Program sponsors may use any reasonable method to propose the entries for "The General Availability of Minorities and Women with the Present or Potential Capacity for Apprenticeship," including relying on the data recorded in Section C.1 for "Total Labor Force," C.2 for "Working Age Population," and C.3 for "Apprentice Participation in Occupation."

***   RAPIDS data available from Registration Agency.

****   http://www.census.gov/eeo2000/index.html

Appendix D

QUALIFICATIONS AND SELECTION PROCEDURES

ADOPTED BY

Bitwise Industries Apprenticeship Program

DEVELOPED IN COOPERATION WITH THE

U.S. DEPARTMENT OF LABOR – OFFICE OF APPRENTICESHIP

CALIFORNIA DIVISION OF APPRENTICESHIP STANDARDS

APPROVED BY: Click or tap here to enter text. **DATE APPROVED:** Click or tap here to enter text.

Signature of State Director, Region 6

APPROVED BY: Click or tap here to enter text. **DATE APPROVED:** Click or tap here to enter text.

Signature of Chief, Division of Apprenticeship Standards

The certification of this selection procedure is not a determination that, when implemented, it meets the requirements of the Uniform Guidelines on Employee Selection Procedures (41 CFR § 60-3) or 29 R § 30. Note that selection procedures may need to be modified to provide reasonable accommodations to qualified individuals with disabilities.

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Applicants will meet the following minimum qualifications. These qualification standards, and the score required on any standard for admission to the applicant pool, must be directly related to job performance, as shown by a statistical relationship between the score required for admission to the pool and performance in the apprenticeship program:

A. <u>Age</u>

Minimum qualifications required by the sponsor for persons entering the apprenticeship program, with an eligible starting age not less than 16 years.

B. <u>Education</u>

A high school diploma, General Educational Development (GED) equivalency or other high school equivalency credential is required.

C. <u>Physical</u>

Must have the ability to safely perform the work of the trade.

SECTION II - APPLICATION PROCEDURES - Labor Code Section 3078

A. Applicants will be accepted *throughout the year*, as positions become available. Every person requesting an application will have one made available upon signing the applicant log.

B. All applications will be identical in form and requirements. The application form will be numbered in sequence corresponding with the number appearing on the applicant log so that all applications can be accounted for. Columns will be provided on the applicant log to show race, ethnicity, and sex and the progress by dates and final disposition of each application.

C. Before completing the application, each applicant will be required to review the Apprenticeship Standards and will be provided information about the program. If the applicant has any additional questions on the qualifications or needs additional information to complete the application, it will be provided by the sponsor.

D. Receipt of the properly completed application form along with required supporting documents (driver's license, birth certificate, or other acceptable proof of age; copy of high school diploma, GED certificate, or other acceptable documentation of education) will constitute receipt of a completed application.

E. 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 notified in writing of their

disqualification and of the appeal rights available to them. No further processing of such applications will be taken.

F.   A qualified pool of eligible applicants subject to selection for two (2) years is created and maintained by the sponsor for employer review.

SECTION III - SELECTION PROCEDURES - CCR, Title 8, Chapter 2, Part 1, Section 215

Sponsor must select one (1) of the following:

1. ☐   ***Alternative selection methods***
   The sponsor may select apprentices by any other method, including its present selection method, provided that the sponsor meets the requirements listed in 29 CFR § 30.5(b)(4).

   The company will first look internally and assess internal candidates eligibility, against the minimum qualifications of the job, and then also review external candidates. Both internal and external candidates will be interviewed and the best qualified candidate will be selected.

   The sponsor may select apprentices through the use of oral interviews from a pool of eligible applicants on the basis of the rank order of the date applications were received and completion of registered pre-apprenticeship program linked to the occupation applied for.

2. ☒   ***Selection on basis of rank from pool of eligible applicants***
   The sponsor may select apprentices from a pool of eligible applicants on the basis of the rank order of their scores on one or more qualification standards where there is a significant statistical relationship between rank order of scores and performance in the apprenticeship program. The selection of any qualification standards beyond minimum legal working age, the use of oral interviews, the notification of applicants, and the establishment of goals for the admission of minorities and women (minority and nonminority) into the pool of eligibles must proceed in accordance with the requirements of 29 CFR § 30.5(b)(1).

   Apprentices shall be selected on the basis of rank from a pool of eligible applicants.

   1. To qualify for interview and ranking, all applicants must:
      a. successfully complete and submit an application;
      b. provide evidence of minimum age requirement of 16 years old at time of application. There is no maximum age;
      c. show evidence of being at least a high school graduate or have a GED;

      d. pass the interview. Interview factors are:

           i. Basic Web and Application Development Skills: 25%

           ii. Teamwork Ability and Genuine Interest in Technology: 25%

           iii. Communication and Interpersonal Skills: 50%

          Relative weight of interview is 100%

          Minimum overall passing score is 75%

      e. have the ability to safely perform the work of the occupation;

      f. be capable of passing required reference checks;

2. The program sponsor may grant priority referrals into the apprenticeship program for persons who are currently or who have previously been admitted to Bitwise Workforce Training or other local coding programs. Such persons shall be given equal consideration without regard to their race, sex, minimum qualifications, the program's eligibility list, or the education requirements for application;

3. Applicants requesting evaluation based on prior work experience and training must submit a letter addressing the program sponsor along with verification of all past experience/education for consideration;

4. All applicants will be notified in writing of Acceptance or Rejection; if rejected, reasons for rejections will be stated;

5. The applicant's interview score will rank a pool of eligible applicants. The program sponsor will maintain this pool of eligible applicants for two years.

3. ☐ ***Random selection from pool of eligible applicants***
The sponsor may select apprentices from a pool of eligible applicants on a random basis. The method of random selection is subject to approval by the U.S. Department of Labor. Supervision of the random selection process shall be by an impartial person or persons selected by the sponsor but not associated with the administration of the apprenticeship program. The time and place of the selection, and the number of apprentices to be selected, shall be announced. The place of the selection shall be open to all applicants and the public. The names of apprentices drawn by this method shall be posted immediately following the selection at the program sponsor's place of business.

4. ☐ ***Selection from pool of current employees***
Employers may select apprentices from an eligibility pool of the workers already employed in a manner prescribed by a collective bargaining agreement where such exists or by the employer's established promotion

policy. The employer adopting this method of selecting apprentices shall establish goals for the selection of minority and female apprentices, unless the sponsor concludes, in accordance with the provisions of 29 CFR § 30.4(d), (e), and (f) that it does not have deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the apprenticeship of journeyworker occupations represented by the program.

Sponsors that wish to invoke the direct entry provision may do so without regard to the existing selection procedure or minimum qualifications used for entry into the apprenticeship program. Individuals selected into the apprenticeship program via direct entry shall include only those individuals described below who have received training or employment in an occupation directly or indirectly related to the occupation(s) registered in these Standards. The sponsor will award credit for previous experience in accordance with Section XII of these standards and will pay each apprentice at the wage rate commensurate with his or her skill attainment. The credit for previous experience shall be awarded without regard to race, color, religion, national origin, or sex. The methods for direct entry are as follows:

Sponsor must select the one's they will use:

A. ☐ A youth who has completed a Job Corps training program in any occupation covered in these Standards and who meets the minimum qualifications of the apprenticeship program may be admitted directly into the program, or if no apprentice opening is available, the Job Corps graduate may be placed at the top of the current applicant ranking list and given first opportunity for placement. The sponsor will evaluate the Job Corps training received to grant appropriate credit on the term of apprenticeship. Entry of Job Corps graduates will be done without regard to race, color, religion, national origin, or sex. ***(Note: This is a method of direct entry into the apprenticeship program.)***

B. ☐ A youth who has completed a YouthBuild training program in any occupation covered in these Standards and who meets the minimum qualifications of the apprenticeship program may be admitted directly into the program, or if no apprentice opening is available, the YouthBuild graduate may be placed at the top of the current applicant ranking list and given first opportunity for placement. The sponsor will evaluate the YouthBuild training received to grant appropriate credit on the term of apprenticeship. Entry of YouthBuild graduates will be done without regard to race, color, religion, national origin, or sex. ***(Note: This is a method of direct entry into the apprenticeship program.)***

C. ☐ A military veteran who is registered with the Helmets to Hardhats program or has completed military technical training school and/or participated in a registered apprenticeship program or related occupation while in the military in the occupations registered in the **(Insert Industry)** may be given direct entry into the apprenticeship program. The sponsor shall evaluate the military training received for granting appropriate credit on the term of apprenticeship and the appropriate wage rate. The sponsor will determine what training requirements the veteran needs to meet to ensure he or she receives all necessary training for completion of the apprenticeship program. 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. Entry of military veterans shall be done without regard

to race, color, religion, national origin, or sex. *(Note: This is a method of direct entry into the apprenticeship program.)*

D. ☐ A former inmate of the U.S. Department of Justice Bureau of Prisons (BOP) who has participated in or successfully completed a specific BOP apprenticeship program may be given direct entry into the apprenticeship program. Sponsors agreeing to admit such individuals into apprenticeship must do so without regard to present minimum qualifications, eligibility lists, or scores on written apprenticeship entrance tests. Entry into the program by this method shall be done without regard to race, color, religion, national origin, or sex. *(Note: This is a method of direct entry into the apprenticeship program.)*

G. ☐ A senior citizen who has completed a Senior Community Service Employment Program (SCSEP) pre-apprenticeship training program in any health care occupation covered in these standards and who meets the minimum qualifications of the apprenticeship program may be admitted directly into the program, or if no apprentice opening is available, the SCSEP graduate may be placed at the top of the current applicant ranking list and given first opportunity for placement. The sponsor will evaluate the SCSEP training received to grant appropriate credit on the term of apprenticeship. Entry of SCSEP graduates will be done without regard to race, color, religion, national origin, or sex. *(Note: This is a method of direct entry into the apprenticeship program for the health care industry.)*

H. ☒ An individual who has completed a structured pre-apprenticeship training program that meets the requirements outlined in Training and Employment Notice 13-12, Defining a Quality Pre-Apprenticeship Program and Related Tools and Resources, in any occupational area covered in these standards of apprenticeship and who meets the minimum qualifications of the apprenticeship program may be admitted directly into the program. The candidate shall provide official documentation confirming that he or she fulfilled the specific requirements of the pre-apprenticeship program, such as completion/graduation certificates, transcripts, notarized letters of confirmation, and sworn statements. The sponsor will evaluate the training received to grant appropriate credit on the term of apprenticeship. Entry of pre-apprenticeship candidates shall be done without regard to race, color, religion, national origin, or sex. *(Note: This is a method of direct to interview of the apprenticeship program.)*

SECTION V - COMPLAINT PROCEDURE

A. Any apprentice or applicant for apprenticeship who believes that he/she has been discriminated against on the basis of race, color, religion, national origin, or sex with regard to apprenticeship or that the equal opportunity standards with respect to his or her selection have not been followed in the operation of an apprenticeship program may, personally or through an authorized representative, file a complaint with the Registration Agency or, at the apprentice or applicant's election, with the private review body established by the sponsor (if applicable).

B. The complaint will be in writing and will be signed by the complainant. It must include the name, address, and telephone number of the person allegedly discriminated against, the sponsor involved, and a brief description of the circumstances of the failure to apply equal opportunity standards.

C. The complaint must be filed not later than 180 days from the date of the alleged discrimination or specified failure to follow the equal opportunity standards. In the case of a complaint filed directly with the review body designated by the sponsor to review such complaints, any referral of such complaint by the complainant to the Registration Agency must occur within the time limitation stated above or 30 days from the final decision of such review body, whichever is later. The time may be extended by the Registration Agency for good cause shown.

D. Complaints of discrimination and failure to follow equal opportunity standards in the apprenticeship program may be filed and processed under 29 CFR § 30 and the procedures as set forth above.

E. The sponsor will provide written notice of its complaint procedure to all applicants for apprenticeship and all apprentices.

SECTION VI - MAINTENANCE OF APPLICATION AND SELECTION RECORDS – CCR Section 212 (b, 7)

The sponsor will keep adequate records, including a summary of the qualifications of each applicant; the basis for evaluation and for selection or rejection of each applicant; the records pertaining to interviews of applicants; the original application for each applicant; information relative to the operation of the apprenticeship program, including, but not limited to, job assignment, promotion, demotion, layoff, or termination; rates of pay or other forms of compensation or conditions of work; hours including hours of work and, separately, hours of training provided; and any other records pertinent to a determination of compliance with 29 CFR § 30, as may be required by the U.S. Department of Labor.

The records pertaining to individual applicants, selected or rejected, will be maintained in such manner as to permit the identification of minority and women (minority and nonminority) participants.

Each sponsor must retain a statement of its affirmative action plan for the prompt achievement of full and equal opportunity in apprenticeship, including all data and analyses made pursuant to the requirements of 29 CFR § 30.4. Each sponsor also must maintain evidence that its qualification standards have been validated in accordance with the requirements set forth in 29 CFR § 30.5(b).

If applicants are interviewed during the selection process, adequate records include a brief summary of each interview and the conclusions on each of the specific factors - e.g., motivation, ambition, and willingness to accept direction - that are part of the total judgment.

Records will be maintained for 5 years from the date of last action and made available upon request to the U.S. Department of Labor or other authorized representative.

Bitwise Industries Apprenticeship Program hereby officially adopt these selection procedures on this 15th day of July, 2021.

Sponsor(s) may designate the appropriate person(s) to sign the standards on their behalf.

_____
Signature of Management (*designee)*

Click or tap here to enter text.
Printed Name

_____
Signature of Management (*designee)*

Click or tap here to enter text.
Printed Name

Appendix E

Local Education Authority Letters of Support

SAN JOAQUIN COUNTY OFFICE OF EDUCATION
James A. Mousalimas, County Superintendent of Schools

P.O. Box 213030
Stockton, CA 95213-9030
(209) 468-4800
www.sjcoe.org

October 13, 2020

Division of Apprenticeship Standards
Atten: Adriana Salmoran
2550 Mariposa Mall, Suite 3080
Fresno, CA 93721

Dear Adriana,

This letter confirms that the San Joaquin County Office of Education (SJCOE) will serve as the Local Education Agency (LEA) for Bitwise and their apprenticeship program. This service will include the following occupation:

- Application Developer

The geographic area covered by our service is the State of California. This service meets the requirements of the California Educational Code together with oversight guidelines. This letter does not assure Related and Supplemental Instruction funding.

Please contact Don Simonich at dsimonich@sjcoe.net should you have any questions.

Thank you,

Don Simonich
Apprenticeship Program Manager

EDUCATE • INNOVATE • INSPIRE