Division of Apprenticeship Standards (DAS) Apprenticeship Program Summary Sheet

To:      Eric Rood, Chief
From:    Tsegay Arefaine
CC:      Program Planning and Review
Date:    February 24, 2022

Program Name: The New Horizons Learning Group Apprenticeships for Tech
Industry:    Information Technology
DAS File No.: 100863

CAI Grant Awardee: No

Actions:
☒ Proposed new apprentice program
☐ Existing apprenticeship program adding new occupations
☐ Existing apprenticeship program expanding area of operations
☐ Existing apprenticeship program changing work processes on approved occupations.

Labor Organizations Representing Any of the Apprentices:
None

Disclaimer of Interest in the Building Trades and Dispatch Restriction:
The New Horizons Learning Group Apprenticeships for Tech is not intended to train in the building and construction trades within the meaning of Labor Code section 3075, and is not eligible to dispatch apprentices to projects with public works, prevailing wage or skilled and trained workforce requirements.

The New Horizons Learning Group Apprenticeships for Tech will not train or dispatch apprentices for any other employer.

Comments:
The New Horizons Learning Group Apprenticeships for Tech will oversees the apprenticeship program herein and seeks approval from the Department of Industrial Relations, Division of Apprenticeship Standards for the following items:
Proposed Occupation, Wage Rate & O*Net Code:

- Tech Project Coordinator
  O*Net: 15-1299.09
  Journeyperson Wage: $31.00 per hour
  Proposed Apprentice Wage: $18.00 per hour
  Proposed No. of Apprentices: 7

- Tech Support Specialist
  O*Net: 15-1232.00
  Journeyperson Wage: $25.00 per hour
  Proposed Apprentice Wage: $15.00 per hour
  Proposed No. of Apprentices: 7

- Network Support Specialist
  O*Net: 15-1244.00
  Journeyperson Wage: $31.00 per hour
  Proposed Apprentice Wage: $20.00 per hour
  Proposed No. of Apprentices: 8

- Cybersecurity Support Technician
  O*Net: 15-1212.00
  Journeyperson Wage: $48.00 per hour
  Proposed Apprentice Wage: $27.00 per hour
  Proposed No. of Apprentices: 8

Proposed Employers:
- New Horizon Learning Group, 1900 S. State College Blvd Suite 100 Anaheim, CA 92806
STANDARDS OF APPRENTICESHIP

Developed by

The New Horizons Learning Group Apprenticeships for Tech Program

1900 S. State College, Suite 100 Anaheim, CA 92806

For the occupation(s) of

Tech Project Coordinator
O*Net Code: 15-1299.09 RAPIDS Code: 1048CB

Tech Support Specialist
O*Net Code: 15-1232.00 RAPIDS Code: 2018CB

Network Support Specialist
O*Net Code: 15-1244.00 RAPIDS Code: 1132CB

Cybersecurity Support Technician
O*Net Code: 15-1212.00 RAPIDS Code: 2050CB

APPROVED BY

U.S. DEPARTMENT OF LABOR OFFICE OF APPRENTICESHIP

And

CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF APPRENTICESHIP STANDARDS

CA State Director, Region 6, Office of Apprenticeship

Chief, Division of Apprenticeship Standards

Registration Date:  
DAS File Number:  
Program Number:  
Registration Date:  
Registration Date:
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The New Horizons Learning Group Apprenticeships for Tech Program recognizes the need for structured training programs to maintain the high level of skill and competence demanded in the information technology 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 laborstandards 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 workforce 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.
SECTION I - PROGRAM ADMINISTRATION - CCR §212
The New Horizons Learning Group Apprenticeships for Tech Program 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. The New Horizons Learning Group Apprenticeships for Tech 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. The New Horizons Learning Group Apprenticeships for Tech 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

The New Horizons Learning Group Apprenticeships for Tech 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. New Horizon Learning Group 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. Applicant must provide an official transcript(s) for high school and any post–high school education. Applicant must submit the GED certificate or other high school equivalency credential if applicable.

C. **Physical**

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

D. **Interview**

Must qualify and pass the oral and written 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.

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

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 professional worker 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 A.

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 as specified on the Appendix A for each occupation included in these standards with the required OJL or competence attainment supplemented by the required hours of related instruction as stated on the Work Process Schedule and Related Instruction Outlines (Appendix A).

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 12 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.

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 professional worker 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.

**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)

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 A). 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
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 professional worker. 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 A. 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.

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 West Los Angeles College, 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.


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.

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.

**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**

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.


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(202) 693-2796(202) 693-2796
   Email Address: ApprenticeshipEEOcomplaints@dol.gov
   Point of Contact: Director, Division of Registered Apprenticeship and Policy Director, Division of Registered Apprenticeship and Policy Director, Division of Registered Apprenticeship and Policy
   Attn: Apprenticeship EEO Complaints

   **California Division of Apprenticeship Standards**
   1515 Clay St, 19th floor, Ste 1902 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:

- **Name:** Cynthia Sutherland
- **Address:** 1900 S. State College Suite 100, Anaheim, CA 92806
- **Telephone Number:** 714-221-3121
- **Email Address:** csutherland@nhlearninggroup.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):

- **Mr. Arthur Page | Apprentice & Training Rep.**
  - 550 West C Street. Suite 980; San Diego, CA 92101
  - 619.678.6165 | page.arthur@dol.gov

- **California Division of Apprenticeship Standards**
  - 1515 Clay St, 19th floor, Ste 1902 Oakland, CA 94612
  - Telephone Number: (415) 703-4920
  - Email Address: DAS@dir.ca.gov
  - Point of Contact: Deputy Chief, Division of Apprenticeship Standards

**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 professional worker.

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 Regulations 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, Arthur Page, Apprentice Training Representative 550 West C Street. Suite 980. San Diego, CA 92101 (619) 678-6165 or
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, Tsegay Arefaine, Apprenticeship Consultant, Fresno D.O., 2550 Mariposa Mall Room 3080, Fresno, CA 93719, tarefaine@dir.ca.gov, 916-539-2562.

**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

The New Horizons Learning Group Apprenticeship for Tech 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 17th day of December, 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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WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL INSTRUCTION OUTLINE
WORK PROCESS SCHEDULE

Tech Project Coordinator

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

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, supplemented by the minimum required 257 hours of related instruction.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journey worker ratio is no more than three (3) Apprentices’ to one (1) Journey worker.

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 journey worker wage rate, which is: $31.00 per hour. 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:

1\textsuperscript{st} Period: $18.00 per hour

2\textsuperscript{nd} Period (50% competencies completed): $22.00 per hour

Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The program sponsor will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. To advance from one period to the next, the apprentice shall have satisfactorily completed 50% competencies. The program sponsor 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.
The competency sets include both technical and employability skills that the apprenticeship will learn at the workplace. The technical competencies align with designated CompTIA certifications and can be readily aligned with courses designed to prepare students for certifications.

PART 1 – BASICS OF PROJECT MANAGEMENT
1. Demonstrate knowledge of the properties of a project.
2. Demonstrate knowledge of project roles and responsibilities.
3. Demonstrate knowledge of standard project phases.
4. Demonstrate knowledge of basic cost control models for projects.
5. Demonstrate knowledge of organizational structures for project teams.
6. Demonstrate skills required to execute and develop project schedules.
7. Demonstrate knowledge of basic Agile project management methodologies.
8. Demonstrate knowledge of resource management (including human resources).

PART 2 – MANAGING PROJECT CONSTRAINTS
1. Demonstrate skills required to predict the impact of constraint variables and other influences throughout the project lifecycle.
2. Demonstrate knowledge of risk strategies and risk management activities.

PART 3 – COMMUNICATION AND CHANGE MOVEMENT
1. Demonstrate skills required to use the appropriate communication method in a given situation.
2. Demonstrate knowledge of factors that can influence one's choice of communication strategy.
3. Demonstrate knowledge of project events that will trigger communication to stakeholders and determine the target audience and rationale.
4. Demonstrate skills required to use change-control processes within the context of a project.
5. Demonstrate knowledge of types of organizational change like mergers/acquisitions, internal restructuring, relocation and outsourcing.

PART 4 – PROJECT TOOLS AND DOCUMENTATION
1. Demonstrate knowledge of various project management tools.
2. Demonstrate skills required to analyze project-centric documentation.
3. Demonstrate knowledge of partner- or vendor-centric documents and their purpose.

PART 5 – GENERAL IT TERMINOLOGY AND CONCEPTS
1. Demonstrate knowledge of notational systems.
2. Demonstrate knowledge of basic data types.
3. Demonstrate knowledge of computing and processing basics.
4. Demonstrate knowledge related to the importance of data and information.
5. Demonstrate knowledge of units of measure in IT.
6. Demonstrate knowledge of a troubleshooting methodology.

PART 6 – COMPUTING INFRASTRUCTURE
1. Demonstrate knowledge of input and output interfaces.
2. Demonstrate skills required to install and deploy peripheral devices for common computing devices.
3. Demonstrate knowledge of internal computing components.
4. Demonstrate knowledge related to types of internet service.
5. Demonstrate knowledge of types of storage.
6. Demonstrate knowledge of computing devices.
7. Demonstrate knowledge related to the basics of networking concepts.
8. Demonstrate skills required to deploy, secure and maintain a basic wireless network.

PART 7 – SOFTWARE AND APPLICATIONS
1. Demonstrate knowledge related to the purpose of operating systems.
2. Demonstrate knowledge related to modules of an operating system.
3. Demonstrate knowledge of the purpose of software.
4. Demonstrate knowledge related to methods of application delivery models.
5. Demonstrate skills required to use web browsers.
6. Demonstrate knowledge of general application concepts.

PART 8 – SOFTWARE DEVELOPMENT AND DATABASE BASICS
1. Demonstrate knowledge of programming languages.
2. Demonstrate knowledge of general programming concepts.
3. Demonstrate knowledge of the purpose of databases.
4. Demonstrate knowledge of database structures.
5. Demonstrate knowledge of database interface methods.

PART 9 – SECURITY
1. Demonstrate knowledge related to the importance of confidentiality, integrity and availability.
2. Demonstrate knowledge of device security methods.
3. Demonstrate knowledge of security concepts related to behavior.
4. Demonstrate knowledge of authentication, authorization, accounting and non-repudiation.
5. Demonstrate knowledge of best practices for password use.
6. Demonstrate knowledge of encryption use cases.
7. Demonstrate knowledge of business continuity.

PART 10 – BUSINESS ACUMEN
1. Demonstrate a basic understanding of the employer’s corporate structure and business model, including its product and services portfolio, its primary customers, and its top competitors.
2. Demonstrate a basic knowledge of the employer’s brand messaging, its value proposition in the marketplace, and key success metrics.

PART 11 – EMPLOYABILITY SKILLS
1. Demonstrate skills to provide competent customer service using active listening
and empathy during various interactions (e.g., in-person, over telephone, email, and chat).

2. Demonstrate ability to manage stress and other emotions in the workplace to reduce conflict, foster collaboration, and promote wellness.

3. Demonstrate skills required to take and give productive critical feedback.

4. Demonstrate skills required to problem-solve using critical thinking, clarifying questions, and knowing when to escalate a situation to a superior.

5. Demonstrate skills to explain complex issues to non-technical customers without jargon or blaming.

6. Demonstrate ability to conduct oneself with integrity, professionalism, and in accordance with organization policy and procedure.

7. Demonstrate skills to communicate with colleagues, managers, and end users effectively and clearly, in a timely manner.

8. Demonstrate ability to use language, tone of voice, and non-verbal communication to neutralize conflict in the workplace.

9. Demonstrate skills required to collaborate effectively with team members from across the organization.

10. Demonstrate ability to use respectful cross-cultural communication to work successfully across the organization and with diverse coworkers.

11. Demonstrate knowledge required to manage time effectively, minimizing distractions to maintain productivity, prioritize work appropriately, and meet deadlines with situational awareness.

12. Demonstrate ability to adapt to changing organizational landscape.

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Tech Project Coordinator

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

Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

<table>
<thead>
<tr>
<th>RELATED INSTRUCTION DESCRIPTIONS</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Employee Skills</strong></td>
<td>15</td>
</tr>
<tr>
<td>• Safety training</td>
<td></td>
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<tr>
<td>• Company orientation including privacy and confidentiality</td>
<td></td>
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<tr>
<td>• Tools (internal messaging apps, office applications)</td>
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<tr>
<td>• Sexual harassment prevention</td>
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<tr>
<td><strong>Business Acumen</strong></td>
<td>3</td>
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<tr>
<td>• Company vision, mission, and key success metrics</td>
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<tr>
<td>• The company’s products and services and value proposition in the market</td>
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<tr>
<td><strong>Employability Skills</strong></td>
<td>60</td>
</tr>
<tr>
<td>• Managing conflict</td>
<td></td>
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<tr>
<td>• Being an effective team member</td>
<td></td>
</tr>
<tr>
<td>• Business communication etiquette</td>
<td></td>
</tr>
</tbody>
</table>
- Interpersonal communication
- Intercultural communication
- Critical thinking
- Time management
- Workplace wellness and managing stress
- Handling workplace change
- Leading across generations and personalities
- Understanding diversity, equity, and inclusion fundamentals

Technical and Professional Skills Covered by CompTIA Project+ Coursework and Certification 81.5
- Project Basics: Summarize the properties of a project. Classify project roles and responsibilities. Identify standard project phases and the basics of a project cost control, project scheduling, and Agile methodology. Explain the role of resource management (including human resources).
- Project Constraints: Given a scenario, predict the impact of various constraint variables and influences throughout the project. Explain the importance of risk strategies and activities.
- Communication and Change Management: Given a scenario, choose the appropriate communication method. Compare and contrast factors influencing communication method choices. Explain the project events that would trigger communication to stakeholders and determine the target audience and rationale. Given a scenario, use the proper change control process.
- Project Tools and Documentation: Recognize the types of organizational change. Compare and contrast various project management tools. Given a scenario, analyze project-centric documentation. Identify common partner- or vendor-centric documents and their purpose.
- CompTIA Project+ ebook, and CertMaster Practice (or similar courseware).
- Pass CompTIA Project+ Certification

Project Management Skills 31
- Agile software development methodology fundamentals
- Managing effective teams
- Popular project management productivity tools (e.g., Atlassian Confluence, Microsoft Teams, Slack, etc.)
- Pivotal project management specialties (requirements, schedules, budgets, procurement, problem solving)
- Rightsizing project management approach for small to large projects
- Risk mitigation techniques
- Stakeholder management techniques
- Strategic communications

Technical and Professional Skills Covered by CompTIA IT Fundamentals (ITF+) Coursework and Certification 41.5
- IT Concepts and Terminology: Compare and contrast notational systems, fundamental data types and their characteristics. Understand the basics of computing and processing and the value of data information. Compare and
contrast common units of measure in IT. Explain troubleshooting methodology.

- Infrastructure: Classify common types of input/output device interfaces. Given a scenario, set up and install common peripheral devices to a laptop/PC. Explain the purpose of common internal computing components. Compare and contrast common Internet service types, storage types, and common computing devices and their purposes. Explain basic networking concepts. Given a scenario, explain how to install, configure and secure a basic wireless network.

- Applications and Software: Compare and contrast components of an operating system. Explain methods of application architecture and delivery models. Given a scenario, configure and use web browsers. Compare and contrast general application concepts and uses.

- Software Development: Compare and contrast programming language categories. Given a scenario, use programming organizational techniques and interpret logic. Explain the purpose and use of programming concepts.

- Database fundamentals: Explain database concepts and the purpose of a database. Compare and contrast various database structures. Summarize methods used to interface with databases.


- CompTIA IT Fundamentals (ITF+) CertMaster Learn, CompTIA Labs and CertMaster Practice (or similar courseware).

- Pass CompTIA IT Fundamentals (ITF+) exam.

**Customer Engagement Skills Covered by the IBM Professional Certificate**

- Communication skills focused on clear concise communication and listening
- Appropriate empathetic behavior such as such as patience, curiosity, and willingness to help
- Problem-solving to research an issue and help determine an appropriate resolution
- Process adherence to ensure the proper flow and Service Level Agreements are met

*or similar customer service training*

**TOTAL HOURS:**

257
WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL INSTRUCTION OUTLINE
WORK PROCESS SCHEDULE
Tech Support Specialist

O*NET-SOC CODE: 15-1232.00  RAPIDS CODE: 2018CB

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, supplemented by the minimum required 328 hours of related instruction.

3. **RATIO OF APPRENTICES TO JOURNEYWORKERS**
   The apprentice to journey worker ratio is no more than five (5) Apprentices’ to one (1) Journey worker.

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 journey worker wage rate, which is: $25.00 per hour. 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 Period: $15.00 per hour

   2nd Period (50% competencies completed): $18.00 per hour

   Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The program sponsor will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. To advance from one period to the next, the apprentice shall have satisfactorily completed 50% competencies. The program sponsor 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**

Tech Support Specialist

O*NET CODE: 15-1232.00  RAPIDS Code: 2018CB
Description: Tech Support Specialists are responsible for analyzing, troubleshooting, and rectifying day-to-day technology problems and challenges. This role may support internal clients (employees within the company) or external customers either in-person, on the phone, or via webchat. The specialist may focus on helping individuals and businesses better use or troubleshoot the company’s own technical products, or the specialist may offer support to those using third-party hardware and software applications to do business. In the latter role, the Tech Support Specialist is the person one might call to troubleshoot one’s Wi-Fi router when the internet is down, obtain online permissions to access accounts or files, or to set up a new employee’s email and workstation. In short, Tech Support Specialists are the steady and calm go-to people for those of us who pull our hair out when something goes wrong with our computers.

Part 1 – Basic Hardware
1. Demonstrate knowledge of various mobile device types, their features, and purpose.
2. Demonstrate skills required to manage and troubleshoot computer hardware and peripheral devices.
3. Demonstrate knowledge of common computer hardware and interfaces.
4. Demonstrate skills required to troubleshoot general computer hardware issues and printer problems.
5. Demonstrate skills required to configure peripherals, printers, and related applications to support external hardware.

Part 2 – Basic Networking
1. Demonstrate knowledge of basic networking concepts (wired and wireless).
2. Demonstrate skills required to configure and troubleshoot device connectivity (LAN and Internet Access).

Part 3 – Cloud and Virtualization Technologies
1. Demonstrate knowledge of cloud computing concepts, including cloud storage and security configurations.
2. Demonstrate skills required to configure client-side virtualization, cloud storage applications, and file synchronization features.

Part 4 – Operating System Basics
1. Demonstrate knowledge of important Microsoft Windows 10 operating system features and their purpose.
2. Demonstrate skills required to install, configure, and secure Microsoft Windows 10 operating system versions.
3. Demonstrate skills required to troubleshoot Microsoft Windows operating system problems.
4. Demonstrate knowledge of important Mac OS and Linux OS desktop operating system features and their purpose.
5. Demonstrate skills required to configure, secure, and troubleshoot various operating systems Mac OS and Linux OS.
6. Demonstrate skills required to troubleshoot mobile operating systems.

**Part 5 – IT Security Basics**
1. Demonstrate knowledge of basic enterprise security concepts and wireless security protocols.
2. Demonstrate skills required to perform account management, configure wireless security, and detect and remove malware on workstations and mobile devices.
3. Demonstrate skills to troubleshoot common computer security issues.
4. Demonstrate skills required to troubleshoot application security issues.

**Part 6 – General IT Operations**
1. Demonstrate knowledge of ticketing systems and documentation procedures.
2. Demonstrate knowledge of disaster recovery concepts and backup procedures.
3. Demonstrate knowledge of licensing and privacy and policy concepts, including how to address prohibited content.
4. Demonstrate knowledge of scripting languages, basic functions, and logic structures.

**Part 7 – Business Acumen**
1. Demonstrate a basic understanding of the employer’s corporate structure and business model, including its product and services portfolio, its primary customers, and its top competitors.
2. Demonstrate a basic knowledge of the employer’s brand messaging, its value proposition in the marketplace, and key success metrics.

**Part 8 – Employability Skills**
1. Demonstrate skills to provide competent customer service using active listening and empathy during various interactions (e.g., in-person, over telephone, email, and chat).
2. Demonstrate ability to manage stress and other emotions in the workplace to reduce conflict, foster collaboration, and promote wellness.
3. Demonstrate skills required to take and give productive critical feedback.
4. Demonstrate skills required to problem-solve using critical thinking, clarifying questions, and knowing when to escalate a situation to a superior.
5. Demonstrate skills to explain complex issues to non-technical customers without jargon or blaming.
6. Demonstrate ability to conduct oneself with integrity, professionalism, and in accordance with organization policy and procedure.
7. Demonstrate skills to communicate with colleagues, managers, and end users effectively and clearly, in a timely manner.
8. Demonstrate ability to use language, tone of voice, and non-verbal communication to neutralize conflict in the workplace.
9. Demonstrate skills required to collaborate effectively with team members from across the organization.
10. Demonstrate ability to use respectful cross-cultural communication to work successfully across the organization and with diverse coworkers.
11. Demonstrate knowledge required to manage time effectively, minimizing distractions to maintain productivity, prioritize work appropriately, and meet deadlines with situational awareness.
12. Demonstrate ability to adapt to changing organizational landscape.

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE

Tech Support Specialist

O*NET CODE: 15-1232.00 RAPIDS Code: 2018CB

Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

RELATED INSTRUCTION DESCRIPTIONS

<table>
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Technical and Professional Skills - CompTIA A+ Coursework and Certification

| Hardware – Identify, use, and connect hardware components and devices | |
| Windows Operating System – Install and support Windows OS including command line and client support | |
| Mobile Devices – Install and configure laptops and other mobile devices | |
| Software Troubleshooting – Troubleshoot computer and mobile device issues | |
including application security support

- Networking – Explain types of networks and connections including TCP/IP, WIFI and SOHO
- Other OS & technologies – Understand Mac OS, Linux and mobile OS
- Hardware and Network Troubleshooting – Troubleshoot device and network issues
- Security – Identify and protect against security vulnerabilities for devices and their network connections
- Operational Procedures – Follow best practices for safety, environmental impacts, and communication and professionalism
- CompTIA A+ CertMaster Learn, CompTIA Labs and CertMaster Practice (orsimilar courseware)
- Pass CompTIA A+ exam

Help Desk Ticketing

- Ticketing systems and documentation best practices

Customer Engagement Skills – IBM Professional Certificate*

- Communication skills focused on clear concise communication and listening
- Appropriate empathetic behavior such as such as patience, curiosity, and willingness to help
- Problem solving to research an issue and help determine an appropriate resolution
- Process adherence to ensure the proper flow and Service Level Agreements are met

*or similar customer service training

TOTAL HOURS:
WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL INSTRUCTION OUTLINE
WORK PROCESS SCHEDULE

Network Support Specialist

O*NET-SOC CODE: 15-1244.00   RAPIDS CODE: 1132CB

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, supplemented by the minimum required 591 hours of related instruction.

3. **RATIO OF APPRENTICES TO JOURNEYWORKERS**
   The apprentice to journey worker ratio is no more than five (5) Apprentices’ to one (1) Journey worker.

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 journey worker wage rate, which is: $31.00 per hour. 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:**

   1<sup>st</sup> Period: $20.00 per hour
   2<sup>nd</sup> Period (50% competencies completed): $22.00 per hour

   Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The program sponsor will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. To advance from one period to the next, the apprentice shall have satisfactorily completed 50% competencies. The program sponsor 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
Network Support Specialist

O*NET CODE: 15-1244.000  RAPIDS Code: 1132CB

**Description:** Network Support Specialists analyze, troubleshoot, and evaluate problems with computer networks, which are crucial for keeping information moving safely and securely between everyone who does business with the company, including internal departments, external supply chains, and customers. Network Support Specialists play an important role in maintaining an organization’s networks through configuration, monitoring, and proper training of end users. Network Support Specialists are responsible for day-to-day operations, making sure that networks have minimal downtime. They may progress in their knowledge and training to become Network Architects/Engineers who design and build local area networks (LANs), wide area networks (WANs), Intranets, and cloud implementations.

**Part 1 – Basic Hardware**
1. Demonstrate knowledge of various mobile device types, their features, and purpose.
2. Demonstrate skills required to manage and troubleshoot computer hardware and peripheral devices.
3. Demonstrate knowledge of common computer hardware and interfaces.
4. Demonstrate skills required to troubleshoot general computer hardware issues and printer problems.
5. Demonstrate skills required to configure peripherals, printers, and related applications to support external hardware.

**Part 2 – Basic Networking**
1. Demonstrate knowledge of basic networking concepts (wired and wireless).
2. Demonstrate skills required to configure and troubleshoot device connectivity (LAN and Internet Access).

**Part 3 – Cloud and Virtualization Technologies**
1. Demonstrate knowledge of cloud computing concepts, including cloud storage and security configurations.
2. Demonstrate skills required to configure client-side virtualization, cloud storage applications, and file synchronization features.

**Part 4 – Operating System Basics**
1. Demonstrate knowledge of important Microsoft Windows 10 operating system features and their purpose.
2. Demonstrate skills required to install, configure, and secure Microsoft Windows10 operating system versions.
3. Demonstrate skills required to troubleshoot Microsoft Windows operating system problems.
4. Demonstrate knowledge of important Mac OS and Linux OS desktop operating system features and their purpose.
5. Demonstrate skills required to configure, secure, and troubleshoot various operating systems Mac OS and Linux OS.
6. Demonstrate skills required to troubleshoot mobile operating systems.

**Part 5 – IT Security Basics**
1. Demonstrate knowledge of basic enterprise security concepts and wireless security protocols.
2. Demonstrate skills required to perform account management, configure wireless security, and detect and remove malware on workstations and mobile devices.
3. Demonstrate skills to troubleshoot common computer security issues.
4. Demonstrate skills required to troubleshoot application security issues.

**Part 6 – General IT Operations**
1. Demonstrate knowledge of ticketing systems and documentation procedures.
2. Demonstrate knowledge of disaster recovery concepts and backup procedures.
3. Demonstrate knowledge of licensing and privacy and policy concepts, including how to address prohibited content.
4. Demonstrate knowledge of scripting languages, basic functions, and logic structures.

**Part 7 – Network Fundamentals**
1. Demonstrate knowledge of the OSI model and relevant encapsulation concepts.
2. Demonstrate knowledge of network topologies and network types.
3. Demonstrate knowledge of cables, types of connectors, and the purpose for each.
4. Demonstrate skills required to configure a subnet and use appropriate IP addressing schemes.
5. Demonstrate knowledge of ports, protocols, and services, as well as their purpose.
6. Demonstrate knowledge of basic architecture concepts related to corporate and datacenter network environments.
7. Demonstrate knowledge of cloud concepts and connectivity alternatives.

**Part 8 – Network Implementations**
1. Demonstrate knowledge of network devices, their features, and placement within a network.
2. Demonstrate knowledge of routing technologies and concepts for bandwidth management.
3. Demonstrate skills required to configure and deploy Ethernet switching solutions, including VLANs.
4. Demonstrate skills required to deploy wireless standards configurations and technologies.

**Part 9 – Network Operations**
1. Demonstrate skills required to leverage statistics and sensors in support of network availability.
2. Demonstrate knowledge of organizational documents and policies.
3. Demonstrate knowledge of high availability and disaster recovery concepts.
Part 10 – Network Security Part 3 – Cloud and Virtualization Technologies
1. Demonstrate knowledge of network security concepts.
2. Demonstrate knowledge of types of network attacks.
3. Demonstrate skills required to implement network hardening techniques.
4. Demonstrate knowledge of remote access techniques and related security risks.
5. Demonstrate knowledge of physical security methods.

Part 11 – Network Troubleshooting
1. Demonstrate skills and best practices required to troubleshoot networking issues.
2. Demonstrate skills required to troubleshoot cable connectivity issues.
3. Demonstrate skills required to use network software tools and commands.
4. Demonstrate skills required to troubleshoot wireless connectivity issues.

Part 12 – Business Acumen
1. Demonstrate a basic understanding of the employer’s corporate structure and business model, including its product and services portfolio, its primary customers, and its top competitors.
2. Demonstrate a basic knowledge of the employer’s brand messaging, its value proposition in the marketplace, and key success metrics.

Part 13 – Employability Skills
1. Demonstrate skills to provide competent customer service using active listening and empathy during various interactions (e.g., in-person, over telephone, email, and chat).
2. Demonstrate ability to manage stress and other emotions in the workplace to reduce conflict, foster collaboration, and promote wellness.
3. Demonstrate skills required to take and give productive critical feedback.
4. Demonstrate skills required to problem-solve using critical thinking, clarifying questions, and knowing when to escalate a situation to a superior.
5. Demonstrate skills to explain complex issues to non-technical customers without jargon or blaming.
6. Demonstrate ability to conduct oneself with integrity, professionalism, and in accordance with organization policy and procedure.
7. Demonstrate skills to communicate with colleagues, managers, and end users effectively and clearly, in a timely manner.
8. Demonstrate ability to use language, tone of voice, and non-verbal communication to neutralize conflict in the workplace.
9. Demonstrate skills required to collaborate effectively with team members from across the organization.
10. Demonstrate ability to use respectful cross-cultural communication to work successfully across the organization and with diverse coworkers.
11. Demonstrate knowledge required to manage time effectively, minimizing distractions to maintain productivity, prioritize work appropriately, and meet deadlines with situational awareness.
12. Demonstrate ability to adapt to changing organizational landscape.

6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE
Network Support Specialist

O*NET CODE: 15-1244.00  RAPIDS Code: 1132CB

Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Related Instruction Descriptions

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Technical and Professional Skills - CompTIA A+ Coursework and Certification

| Hardware – Identify, use, and connect hardware components and devices               |       |
| Windows Operating System – Install and support Windows OS including command line and client support |       |
| Mobile Devices – Install and configure laptops and other mobile devices            |       |
| Software Troubleshooting – Troubleshoot computer and mobile device issues including application security support |       |
| Networking – Explain types of networks and connections including TCP/IP, WIFI and SOHO |       |
| Other OS & Technologies – Understand Mac OS, Linux and mobile OS                   |       |
| Hardware and Network Troubleshooting – Troubleshoot device and network issues      |       |
| Security – Identify and protect against security vulnerabilities for devices and their |       |
network connections

- Operational procedures – Follow best practices for safety, environmental impacts, and communication and professionalism
- CompTIA A+ CertMaster Learn, CompTIA Labs and CertMaster Practice (or similar courseware)
- Pass CompTIA A+ exam – Highly recommend passing A+ exam before beginning on-the-job training

Technical and Professional Skills - CompTIA Network+ Coursework and Certification

- Network Fundamentals – OSI model layers and encapsulation concepts. Configuring a subnet and using appropriate IP addressing schemes.
- Network Implementation – Network devices, their features, and appropriate placement on the network. Configuring and deploying Ethernet switching features, including VLANs.
- Network Security – Understand types of network attacks, remote access methods, and related security implications.
- Network Troubleshooting – Use appropriate network software tools and commands. Configure and troubleshoot physical and wireless networks.
- CompTIA Network+ CertMaster Learn, CompTIA Labs and CertMaster Practice (or similar courseware)
- Pass CompTIA Network+ exam

Vendor-Specific Network Administration and Configuration*

- Install, operate, configure, and verify basic IPv4 and IPv6 networks
- Configure network components such as switches, routers, and wireless LAN controllers; manage network devices; and identify basic security threats
- Network programmability, automation, and software-defined networking
- Study and exam
- *Cisco Network CCNA, or other vendor-specific training as needed for your environment

Customer Engagement Skills - IBM Professional Certificate*

- Communication skills focused on clear concise communication and listening
- Appropriate empathetic behavior such as such as patience, curiosity, and willingness to help
- Problem solving to research an issue and help determine an appropriate resolution
- Process adherence to ensure the proper flow and Service Level Agreements are met

*or similar customer service training

TOTAL HOURS:

220
158
110
25
591
WORK PROCESS SCHEDULE

AND

RELATED AND SUPPLEMENTAL INSTRUCTION

OUTLINE
WORK PROCESS SCHEDULE

Cybersecurity Support Technician

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

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, supplemented by the minimum required 753 hours of related instruction.

3. **RATIO OF APPRENTICES TO JOURNEYWORKERS**
   The apprentice to journey worker ratio is no more than five (5) Apprentices’ to one (1) Journey worker.

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 journey worker wage rate, which is: $48.00 per hour. 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:**
   
   1\(^{st}\) Period: $27.00 per hour
   
   2\(^{nd}\) Period (50% competencies completed): $31.00 per hour

   Apprentices will advance in the program by demonstrating proficiency in the learning competencies for their occupation. The program sponsor will evaluate each apprentice twice annually and on-the-job mentors will submit a written evaluation of skill development. To advance from one period to the next, the apprentice shall have satisfactorily completed 50% competencies. The program sponsor 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**
   **Cybersecurity Support Technician**
Description: Cybersecurity support technicians detect cyber threats and implement changes to protect an organization. A Security Operations Center (SOC) team typically has several tiers of cybersecurity professionals who are responsible for monitoring, directing, containing, and remediating IT threats. Cybersecurity professionals may be tasked with anything from installing, administering, and troubleshooting security solutions to creating security policies and training documents for colleagues. While other IT job roles are responsible for specific parts of the overall system, cybersecurity professionals must be able to take a step back in order to see the big picture and keep every aspect of the system secure from threats. They may progress in their knowledge and training to become security analysts, cloud security engineers, threat hunters, penetration testers, and compliance managers.

**Part 1 – Basic Hardware**

1. Demonstrate knowledge of various mobile device types, their features, and purpose.
2. Demonstrate skills required to manage and troubleshoot computer hardware and peripheral devices.
3. Demonstrate knowledge of common computer hardware and interfaces.
4. Demonstrate skills required to troubleshoot general computer hardware issues and printer problems.
5. Demonstrate skills required to configure peripherals, printers, and related applications to support external hardware.

**Part 2 – Basic Networking**

1. Demonstrate knowledge of basic networking concepts (wired and wireless).
2. Demonstrate skills required to configure and troubleshoot device connectivity (LAN and Internet Access).

**Part 3 – Cloud and Virtualization Technologies**

1. Demonstrate knowledge of cloud computing concepts, including cloud storage and security configurations.
2. Demonstrate skills required to configure client-side virtualization, cloud storage applications and file synchronization features.

**Part 4 – Operating System Basics**

1. Demonstrate knowledge of important Microsoft Windows 10 operating system features and their purpose.
2. Demonstrate skills required to install, configure, and secure Microsoft Windows 10 operating system versions.
3. Demonstrate skills required to troubleshoot Microsoft Windows operating system problems.
4. Demonstrate knowledge of important Mac OS and Linux OS desktop operating system features and their purpose.
5. Demonstrate skills required to configure, secure, and troubleshoot various operating systems Mac OS and Linux OS.
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Part 5 – IT Security Basics
1. Demonstrate knowledge of basic enterprise security concepts and wireless security protocols.
2. Demonstrate skills required to perform account management, configure wireless security, and detect and remove malware on workstations and mobile devices.
3. Demonstrate skills to troubleshoot common computer security issues.
4. Demonstrate skills required to troubleshoot application security issues.

Part 6 – General IT Operations
1. Demonstrate knowledge of ticketing systems and documentation procedures.
2. Demonstrate knowledge of disaster recovery concepts and backup procedures.
3. Demonstrate knowledge of licensing and privacy and policy concepts, including how to address prohibited content.
4. Demonstrate knowledge of scripting languages, basic functions, and logic structures.

Part 7 – Network Fundamentals
1. Demonstrate knowledge of the OSI model and relevant encapsulation concepts.
2. Demonstrate knowledge of network topologies and network types.
3. Demonstrate knowledge of cables, types of connectors, and the purpose for each.
4. Demonstrate skills required to configure a subnet and use appropriate IP addressing schemes.
5. Demonstrate knowledge of ports, protocols, and services, as well as their purpose.
6. Demonstrate knowledge of basic architecture concepts related to corporate and datacenter network environments.
7. Demonstrate knowledge of cloud concepts and connectivity alternatives.

Part 8 – Network Implementations
1. Demonstrate knowledge of network devices, their features, and placement within a network.
2. Demonstrate knowledge of routing technologies and concepts for bandwidth management.
3. Demonstrate skills required to configure and deploy Ethernet switching solutions, including VLANs.
4. Demonstrate skills required to deploy wireless standards configurations and technologies.

Part 9 – Network Operations
1. Demonstrate skills required to leverage statistics and sensors in support of network availability.
2. Demonstrate knowledge of organizational documents and policies.
3. Demonstrate knowledge of high availability and disaster recovery concepts.

Part 10 – Network Security
1. Demonstrate knowledge of network security concepts.
2. Demonstrate knowledge of types of network attacks.
3. Demonstrate skills required to implement network hardening techniques.
4. Demonstrate knowledge of remote access techniques and related security risks.

**Part 11 – Network Troubleshooting**
1. Demonstrate skills and best practices required to troubleshoot networking issues.
2. Demonstrate skills required to troubleshoot cable connectivity issues.
3. Demonstrate skills required to use network software tools and commands.
4. Demonstrate skills required to troubleshoot wireless connectivity issues.

**Part 12 – Threats, Attacks, and Vulnerabilities**
1. Demonstrate knowledge of types of social engineering methods.
2. Demonstrate skills required to analyze potential signs to determine the type of attack.
3. Demonstrate skills required to analyze potential signs related to application attacks, including network-based attacks.
4. Demonstrate knowledge of threat actors, vectors, and intelligence sources.
5. Demonstrate knowledge of security concerns related to several types of vulnerabilities.
6. Demonstrate knowledge of methods used to assess organizational security, including compliance and security assessments and penetration tests.

**Part 13 – Architecture and Design**
1. Demonstrate knowledge of foundational security concepts.
2. Demonstrate knowledge of virtualization and cloud computing concepts.
3. Demonstrate knowledge of secure application development, deployment, and automation concepts.
4. Demonstrate knowledge of concepts related to authentication and authorization design.
5. Demonstrate skills required to deploy cybersecurity resilience.
6. Demonstrate knowledge of security risks related to embedded and specialized systems.
7. Demonstrate knowledge of physical security methods.
8. Demonstrate knowledge of cryptographic concepts.

**Part 14 – Implementation**
1. Demonstrate skills required to deploy host and application security solutions.
2. Demonstrate skills required to deploy secure network designs.
3. Demonstrate skills required to apply configurations for wireless security.
4. Demonstrate skills required to deploy secure mobile phones/devices.
5. Demonstrate skills required to deploy cybersecurity solutions in a cloud environment.
6. Demonstrate skills required to implement identity and account management controls, including public key infrastructure.

**Part 15 – Operations and Incident Response**
1. Demonstrate knowledge of incident response policies, processes, and procedures.
2. Demonstrate skills required to leverage data sources in support of an investigation.
3. Demonstrate skills required to implement mitigation techniques or controls to
secure an environment.
4. Demonstrate knowledge of important aspects related to digital forensics.

**Part 16 – Governance, Risk and Compliance**
1. Demonstrate knowledge of relevant regulations, standards, or frameworks that impact the security posture of an organization.
2. Demonstrate knowledge of risk management processes and concepts.
3. Demonstrate knowledge of privacy and sensitive data concepts as they relate to security.

**Part 17 – Business Acumen**
1. Demonstrate a basic understanding of the employer’s corporate structure and business model, including its product and services portfolio, its primary customers, and its top competitors.
2. Demonstrate a basic knowledge of the employer’s brand messaging, its value proposition in the marketplace, and key success metrics.

**Part 18 – Employability Skills**
1. Demonstrate skills to provide competent customer service using active listening and empathy during various interactions (e.g., in-person, over telephone, email, and chat).
2. Demonstrate ability to manage stress and other emotions in the workplace to reduce conflict, foster collaboration, and promote wellness.
3. Demonstrate skills required to take and give productive critical feedback.
4. Demonstrate skills required to problem-solve using critical thinking, clarifying questions, and knowing when to escalate a situation to a superior.
5. Demonstrate skills to explain complex issues to non-technical customers without jargon or blaming.
6. Demonstrate ability to conduct oneself with integrity, professionalism, and in accordance with organization policy and procedure.
7. Demonstrate skills to communicate with colleagues, managers, and end users effectively and clearly, in a timely manner.
8. Demonstrate ability to use language, tone of voice, and non-verbal communication to neutralize conflict in the workplace.
9. Demonstrate skills required to collaborate effectively with team members from across the organization.
10. Demonstrate ability to use respectful cross-cultural communication to work successfully across the organization and with diverse coworkers.
11. Demonstrate knowledge required to manage time effectively, minimizing distractions to maintain productivity, prioritize work appropriately, and meet deadlines with situational awareness.
12. Demonstrate ability to adapt to changing organizational landscape.
6. RELATED and SUPPLEMENTAL INSTRUCTION OUTLINE
Cybersecurity Support Technician

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

Description: Over the course of the term of apprenticeship, the instruction shall include, but not be limited to, completion of the following courses:

Related Instruction Descriptions

New Employee Skills
- Sexual harassment prevention
- Safety training
- Company orientation including privacy and confidentiality
- Tools (internal messaging apps, office applications) 15

Business Acumen
- Company vision, mission, and key success metrics
- The company’s products and services and value proposition in the market 3

Employability Skills
- Managing conflict
- Being an effective team member
- Business communication etiquette
- Interpersonal communication
- Intercultural communication
- Critical thinking
- Time management
- Workplace wellness and managing stress
- Handling workplace change
- Leading across generations and personalities
- Understanding diversity, equity, and inclusion fundamentals 60

Technical and Professional Skills - CompTIA A+ Coursework and Certification
- Hardware – Identify, use, and connect hardware components and devices
- Windows Operating System – Install and support Windows OS including command line and client support
- Mobile Devices – Install and configure laptops and other mobile devices
- Software Troubleshooting – Troubleshoot computer and mobile device issues including application security support
- Networking – Explain types of networks and connections including TCP/IP, WIFI and SOHO
- Other OS & Technologies – Understand Mac OS, Linux and mobile OS
- Hardware and Network Troubleshooting – Troubleshoot device and network issues
- Security – Identify and protect against security vulnerabilities for devices and their network connections
- Operational Procedures – Follow best practices for safety, environmental impacts, and communication and professionalism
- CompTIA A+ CertMaster Learn, CompTIA Labs and CertMaster Practice (or
• Pass CompTIA A+ exam – Highly recommend passing A+ exam before beginning on-the-job training

Technical and Professional Skills - CompTIA Network+ Coursework and Certification
• Network Fundamentals – OSI model layers and encapsulation concepts. Configuring a subnet and using appropriate IP addressing schemes.
• Network implementation – Network devices, their features, and appropriate placement on the network. Configuring and deploying Ethernet switching features, including VLANs.
• Network Operations – Using statistics and sensors to ensure network availability. High availability and disaster recovery concepts and solutions.
• Network Security – Understand types of network attacks, remote access methods, and related security implications.
• Network Troubleshooting – Use appropriate network software tools and commands. Configure and troubleshoot physical and wireless networks.
• CompTIA Network+ CertMaster Learn, CompTIA Labs and CertMaster Practice (or similar courseware)
• Pass CompTIA Network+ exam

Technical and Professional Skills - CompTIA Security+ Coursework and Certification
• Threats, Attacks, and Vulnerabilities
• Architecture and Design
• Implementation of Cybersecurity
• Operations and Incident Response
• Governance, Risk, and Compliance
• CompTIA Security+ CertMaster Learn, CertMaster Labs (integrated) and CertMaster Practice (or similar courseware)
• Pass Security+ exam

Cybersecurity Risk Management - edX Cybersecurity Risk Management Certificate*
• Information security risk management framework and methodologies
• Identifying and modeling information security risks
• Qualitative and quantitative risk assessment methods

*or similar risk management training

Customer Engagement Skills - IBM Professional Certificate*
• Communication skills focused on clear concise communication and listening
• Appropriate empathetic behavior such as such as patience, curiosity, and willingness to help
• Problem solving to research an issue and help determine an appropriate resolution
• Process adherence to ensure the proper flow and Service Level Agreements are met
*or similar customer service training

TOTAL HOURS: 753