



Appendix A1

WORK PROCESS SCHEDULE

AND

RELATED INSTRUCTION OUTLINE

FOR THE OCCUPATION OF:

IT SUPPORT TECHNICIAN

(USDOL EXISTING OCCUPATION: IT GENERALIST)

O*NET-SOC CODE: 15-1151.00 RAPIDS CODE: 1059CB



Appendix A1

**WORK PROCESS SCHEDULE
IT SUPPORT TECHNICIAN
(Existing Title: IT Generalist)
O*NET-SOC CODE: 15-1151.00 RAPIDS CODE: 1059CB**

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

1. APPRENTICESHIP APPROACH

Time-based Competency-based Hybrid

2. TERM OF APPRENTICESHIP

The term of the occupation shall be defined by the attainment of all competencies of the position, which would be reasonably expected to occur within 1 to 2 years of OJL full-time, or 3 years part-time, supplemented by the minimum recommended 144 hours of related instruction during the apprenticeship. The sponsor may recognize prior-learning achievements or demonstration of competencies to account for related instruction or OJL hours.

1. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: 3 Apprentices to 1 Journeyworker.

2. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages. Apprentices starting wage would be a minimum of \$9.25 per hour. The minimum wage of a journeyworker is \$12.30 per hour which will be paid at the completion of the apprenticeship. The minimum wage rate may be adjusted based on regional wage scales.

Term:

1 st Period	Year 1 (0-12 months)	\$9.25/hr
2 nd Period	Year 2 (13-24 months)	\$10.17/hr
3 rd Period	Year 3 (25- 36 months)	\$11.18/hr
Final	Apprenticeship Completion (36+ months)	\$12.30/hr

Periodic review and evaluation of the apprentice's on-the-job learning and related technical instruction will be conducted in alignment with the wage schedule established. All wage increases are merit-based.

3. PROBATIONARY PERIOD

Every apprentice selected for apprenticeship will serve a probationary period of 500 hours.



3. SELECTION PROCEDURES

Please see page 18.



**WORK PROCESS SCHEDULE
IT SUPPORT TECHNICIAN
(Existing Title: IT Generalist)
O*NET-SOC CODE: 15-1151.00 RAPIDS CODE: 1059CB**

Description: Provide technical assistance to computer users, answering questions or resolving computer problems for clients in person, over the phone or digitally. This job is involved in the IT infrastructure and systems and may also aid with servers and networks.

On-The-Job Training: Apprentices will receive training in the various work experiences listed below. The order in which this training is given will be determined by the flow of work on the job and will not necessarily be in the order listed.

Ratings are:

- (4) Exceeds All Expectations (Advanced)
- (3) Meets & Exceeds Some Expectations (Proficient)
- (2) Meets Expectations Consistently (Emerging)
- (1) Meets Some Expectations (Novice)
- (N/A) Not applicable

4. Exceeds All Expectations (Advanced): Consistently exceeds performance standard established for the time in position. Achieves results above and beyond what is required. Extends themselves in their roles to exceed personally and as a team to achieve exceptional results.

3. Meets & Exceeds Some Expectations (Proficient): Employee not only meets all expectations in a fully satisfactory way but exceeds some of the objectives.

2. Meets Expectations Consistently (Emerging): meets the performance standards established for time in position. Handles routine tasks & some unexpected situation with the usual amount of supervision. Can continue to develop with coaching, advanced training or more experience

1. Meets Some Expectations (Novice): occasionally meets some of the objectives related to this goal but does not meet others in a fully satisfactory way. This performance level generally indicates the need for additional coaching, training or other plan for performance improvements.

Apprentices need to at least receive an average ranking of “2” across all competency categories when evaluated at each of their reviews during the apprenticeship in order to be considered for any wage increases. Apprentices need to receive a “2” or better in each competency in order to complete the apprenticeship.



Apprentice Competency Evaluation

CORE COMPETENCIES	Year 1	Year 2	Year 3	Date	Supervisor Initials
<p>Tech Support: Infrastructure <i>Uses components of commonly used computer hardware, software, applications, etc.; diagnoses customer problems; and provides troubleshooting and issue resolution support.</i></p> <ul style="list-style-type: none"> ● Describes basic infrastructure (e.g., servers, workstations, applications, networks, data centers, facilities, telecommunications, and related equipment used to develop, test, operate, monitor, manage, and/or support IT services). ● Troubleshoots basic issues and identifies resolution tasks. ● Troubleshoots and effectively resolves basic to moderate infrastructure issues with confirmation from the customer that the issue has been resolved. 					
<p>IT/Hardware <i>Assembles, configures, installs, maintains, and repairs computer and device hardware and IT systems.</i></p> <ul style="list-style-type: none"> ● Describes how to properly install and connect hardware. ● Installs, connects, and tests hardware. ● Troubleshoots and repairs failed hardware for end-user computers/devices. 					
<p>Core Operating Systems <i>Demonstrates familiarity with the use of multiple operating systems (e.g., Apple, Microsoft, Android, Linux) for computer and mobile devices and installs, configures, and maintains at least one of those</i></p>					



<p><i>operating systems.</i></p> <ul style="list-style-type: none"> • Navigates and uses operating systems (e.g., Apple, Microsoft Windows, Android, Linux, iOS). • Installs and configures operating systems. • Addresses individual user issues and assists with issues of larger scope. • Configures, optimizes, and maintains (e.g., patching or security updates), and troubleshoots operating systems for a larger scope of IT systems (e.g., a section or department of computers in a company). 					
<p>Software applications <i>Installs, configures, and maintains a wide variety of software applications</i></p> <ul style="list-style-type: none"> • Demonstrates ability to use basic application menus and functions. • Installs, performs initial configuration, and tests a wide variety of software applications • Performs advanced configuration and maintains and enhances a wide variety of software applications 					
<p>General Information Security <i>Installs, configures, troubleshoots, tests, and maintains in a secure manner the portion of the IT environment under their responsibility (networks, communication, hardware, software, and other devices) to ensure confidentiality, integrity, and availability.</i></p> <ul style="list-style-type: none"> • Describes how to protect and secure end-user workstations including computers and devices. • Documents security measures and adheres to 					



<p>risk, compliance, and company policy.</p> <ul style="list-style-type: none"> • Implements and documents security measures. • Aids in recovery when problems arise (e.g. eradicates a virus, solves for a hard drive crash). • Analyzes security scans and implements remediation action steps (e.g., security patching). 					
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In addition to completing all core competencies, an apprentice based on the employer’s assigned role will complete the following additional competencies.

ADDITIONAL COMPETENCIES	Year 1	Year 2	Year 3	Date	Supervisor Initials
<p>General networking tools and concepts <i>Provides network support with commonly used tools/devices, including routers, switches, wireless, ethernet cabling, and firewalls; manages IP addresses and runs cabling.</i></p> <ul style="list-style-type: none"> • Provides basic network support using common diagnostic devices (e.g., WireShark, Cisco switches). Describes OSI layers, WAN, and LAN. • Repairs and replaces cabling and most networking hardware (e.g., routers, switches, wireless, and firewalls). • Configures network devices. • Reserves and tracks IP addresses. • Installs, facilitates, and maintains a basic to moderately complex environment (e.g., a small to medium office). 					



The above on-the-job-learning (OJL) work process competencies are intended as a guide. It need not be followed in any particular sequence, and it is understood that some adjustments may be necessary in the amount of time spent for different work experience. In all cases, the apprentice is to receive sufficient experience to make them fully competent and use good workmanship in all work processes, which are a part of the trade. In addition, the apprentice shall be fully instructed in safety requirements of the position.

Apprenticeship Competencies – Career Readiness

In addition to mastering all the essential technical competencies outlined in the work processes, an apprentice must consistently demonstrate growth and proficiency in the following career readiness competencies to complete the apprenticeship.

Apprentices will be evaluated in these competencies semi-annually, and the supervisor will initial and date the accomplishment of the career ready competency at each review.

Ratings are:

- (4) Exceeds All Expectations (Advanced)
- (3) Meets & Exceeds Some Expectations (Proficient)
- (2) Meets Expectations Consistently (Emerging)
- (1) Meets Some Expectations (Novice)
- (N/A) Not applicable

4. Exceeds All Expectations (Advanced): Consistently exceeds performance standard established for the time in position. Achieves results above and beyond what is required. Extends themselves in their roles to exceed personally and as a team to achieve exceptional results.

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Apprentices need to at least receive an average ranking of “2” across all competency categories when evaluated at each of their reviews during the apprenticeship in order to be considered for any wage increases. Apprentices need to receive a “2” or better in each competency in order to complete the apprenticeship.

ENTREPRENEURIAL SKILLS	Year 1	Year 2	Year 3	Date	Supervisor
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					Initials
<p>Critical Thinking/Problem Solving</p> <ul style="list-style-type: none"> ● Recognize that problems can be identified, and possible solutions can be generated ● Define the problem using a variety of strategies ● Make connections between information gathered and personal experiences to apply and/or test solutions 					
<p>Creativity / Innovation</p> <ul style="list-style-type: none"> ● Demonstrate curiosity, imagination and eagerness to learn more ● Build on personal experience to specify a challenging problem to investigate ● Engage in novel approaches, moves, directions, ideas and/or perspectives 					
<p>Inquiry</p> <ul style="list-style-type: none"> ● Recognize and describe cause-and-effect relationships and patterns in everyday experiences ● Investigate to form hypotheses, make observations and draw conclusions ● Test hypotheses/prototype with planned process for getting feedback 					
<p>Risk Taking</p> <ul style="list-style-type: none"> ● Demonstrate a willingness to try new things ● Demonstrate flexibility, imagination and inventiveness in taking on tasks and activities ● Innovate from failure, connect learning across domains and recognize new opportunities 					



PERSONAL SKILLS	Year 1	Year 2	Year 3	Date	Supervisor Initials
<p>Self-Management / Self Awareness</p> <ul style="list-style-type: none"> • Accurately recognize one’s own emotions, thoughts and values and how they influence behavior • Appropriately express one’s own emotions, thoughts and values and identify how they influence behavior • Assess personal strengths and limitations, with a well-grounded sense of confidence, optimism and a ‘growth mindset’ 					
<p>Self-Direction</p> <ul style="list-style-type: none"> • Recognize personal characteristics, preferences, thoughts and strengths • Pursue opportunities to engage and learn interests • Apply knowledge to set goals, make informed decisions and transfer to new contexts 					
<p>Adaptability / Flexibility</p> <ul style="list-style-type: none"> • Recognize emotional response to ideas that differ from one’s own • Regulate reactions to differing perspectives • Look for and value in different perspectives expressed by others 					
<p>Perseverance / Resilience</p> <ul style="list-style-type: none"> • Resist distractions, maintain attention, and continue the task at hand through frustration or challenges • Set goals and develop strategies to remain focused on learning goals • Focus on learning goals by employing motivation and familiar strategies for engagement and evaluate progress, making necessary changes to stay the course 					



CIVIC/INTERPERSONAL SKILLS	Year 1	Year 2	Year 3	Date	Supervisor Initials
<p>Collaboration / Teamwork</p> <ul style="list-style-type: none"> ● Recognize how personal actions have had a positive or negative impact on others with feedback as needed ● Recognize how members of a community rely on each other, considering personal contributions as applicable ● Follow a process identified by others to help generate ideas, negotiate roles and responsibilities, and respects consensus in decision making 					
<p>Communication</p> <ul style="list-style-type: none"> ● Articulate personal strengths and challenges using different forms of communication to express oneself ● Consider purpose, formality of context and audience, and distinct cultural norms when planning content, mode, delivery and expression ● Establish goals for communication and plan out steps accordingly 					
<p>Global / Cultural Awareness</p> <ul style="list-style-type: none"> ● Compare attitudes and beliefs as an individual to others ● Identify and explain multiple perspectives (cultural, global) when exploring events, ideas and issues ● Plan and evaluate complex solutions to global challenges that are appropriate to their contexts using multiple disciplinary perspectives (such as cultural, historical and scientific) 					



<p>Ethics</p> <ul style="list-style-type: none"> • Takes great care with organizational data • Does not disclose any kind of personal or sensitive organizational information; understands that all data is confidential • Demonstrates honesty and integrity in all interactions. If an error is made, prioritizes minimal impact to the organization over their own reputation 					
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PROFESSIONAL SKILLS	Year 1	Year 2	Year 3	Date	Supervisor Initials
<p>Task/Time Management</p> <ul style="list-style-type: none"> • Articulate task requirements and identify deadlines • Develop and utilize basic task and time-management strategies effectively • Demonstrate task-management attributes associated with producing high-quality products including the abilities to: 1) Work positively and ethically 2) Manage time and projects effectively 3) Multi-task 4) Clearly communicate with others 					
<p>Self-Advocacy</p> <ul style="list-style-type: none"> • Appropriately express a range of emotions to communicate personal ideas/needs • Ask questions to develop further personal understanding • Demonstrate confidence in sharing ideas/feelings 					
<p>Work Ethic</p> <ul style="list-style-type: none"> • Complete tasks with ongoing support • Seek clarity on tasks and needs occasional support 					



<ul style="list-style-type: none"> Demonstrate skill in assigned tasks and completes with little or no support 					
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ACADEMIC SKILLS	Year 1	Year 2	Year 3	Date	Supervisor Initials
Core Academic Foundation <ul style="list-style-type: none"> Begins to use math and literacy skills to inform work Uses math and literacy skills to perform job tasks with frequent checks by supervisor Independently and consistently use math and literacy skills to perform tasks (with occasional checks for quality) 					

In addition to completing all core career readiness competencies, an employer may require an apprentice to complete the following additional career readiness competencies.

BEHAVIORAL COMPETENCIES		Supervisor Initials	Date
1	Maintains an acceptable attendance record		
2	Reports to work on time		
3	Uses appropriate language		
4	Cares appropriately for personal dress, grooming and hygiene		
5	Follows safety rules		
6	Takes care of equipment and workplace		
7	Keeps work area neat and clean		
8	Prevents interference of personal life with work		
9	Adheres to work policies/rules/regulations		



**RELATED INSTRUCTION OUTLINE
IT SUPPORT TECHNICIAN
(Existing Title: IT Generalist)
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Related instruction - This instruction shall include, but not be limited to, at least 144 hours during the apprenticeship. The curriculum is defined as a variety of classes, around which the exams and projects are based. By defining the related instruction this way, all competencies required of the students are met, through project work.

RELATED INSTRUCTION	Approximate Hours
CareerWise Apprenticeship Bootcamps	16
CareerWise Quarterly Professional Development Training	8
Google IT Support Professional Certificate	120
Total Hours	144

COURSE DESCRIPTIONS

CareerWise Apprenticeship Bootcamps (16 hours)

Introduction to career-readiness to prepare students for working in a professional environment.

Topics may include:

- Soft skills development
- Workplace etiquette and expectations
- Professional communication
- Time management
- Goal setting
- Self-advocacy and emotional intelligence
- Money management
- Stress management
- Supervisor interaction preparation
- Growth mindset and training plans
- Building strong relationships
- Feedback and tough conversations
- Workplace conflict
- Higher education planning
- LinkedIn and resume development
- Financial planning
- Workplace Safety and Ergonomics

CareerWise Quarterly Professional Development Training (8 hours)



Ongoing professional skills development courses. Topics may include:

- Managing strengths and weaknesses
- Professional communication
- Networking
- Time management

Google IT Support Professional Certificate (120 hours)

This 5-course, 12-credit certificate is designed to prepare students for an entry-level role in IT support.

1. Technical Support Fundamentals

In this course, students are introduced to the world of Information Technology, or IT. By the end of this course, students will be able to: understand how the binary system works, assemble a computer from scratch, choose and install an operating system on a computer, understand what the Internet is, how it works, and the impact it has in the modern world, learn how applications are created and how they work under the hood of a computer, utilize common problem-solving methodologies and soft skills in an Information Technology setting.

2. The Bits and Bytes of Computer Networking

This course is designed to provide a full overview of computer networking. It covers everything from the fundamentals of modern networking technologies and protocols to an overview of the cloud to practical applications and network troubleshooting. By the end of this course, students will be able to: describe computer networks in terms of a five-layer model, understand all of the standard protocols involved with TCP/IP communications, grasp powerful network troubleshooting tools and techniques, learn network services like DNS and DHCP that help make computer networks run, understand cloud computing, everything as a service, and cloud storage.

3. Operating Systems and You: Becoming a Power User

In this course -- through a combination of video lectures, demonstrations, and hands-on practice -- students learn about the main components of an operating system and how to perform critical tasks like managing software and users, in addition to configuring hardware. By the end of this course students will be able to: 1) navigate the Windows and Linux filesystems using a graphical user interface and command line interpreter; 2) set up users, groups, and permissions for account access; 3) install, configure, and remove software on the Windows and Linux operating systems; 4) configure disk partitions and filesystems; 5) understand how system processes work and how to manage them; 6) work with system logs and remote connection tools; 7) utilize operating system knowledge to troubleshoot common issues in an IT Support Specialist role.

4. System Administration and IT Infrastructure

In this course, students learn about the infrastructure services that keep all organizations, big and small, up and running. We'll deep dive on cloud so that students understand everything from typical cloud infrastructure setups to how to manage cloud resources. Students will also



learn how to manage and configure servers and how to use industry tools to manage computers, user information, and user productivity. Finally, students will learn how to recover an organization's IT infrastructure in the event of a disaster. By the end of this course students will be able to: 1) utilize best practices for choosing hardware, vendors, and services for an organization; 2) understand how the most common infrastructure services that keep an organization running work, and how to manage infrastructure servers; 3) understand how to make the most of the cloud for an organization; 4) manage an organization's computers and users using the directory services, Active Directory, and OpenLDAP; 5) choose and manage the tools that an organization will use; 6) backup an organization's data and know how to recover IT infrastructure in the case of a disaster; 7) utilize systems administration knowledge to plan and improve processes for IT environments.

5. IT Security: Defense Against the Digital Dark Arts

This course covers a wide variety of IT security concepts, tools, and best practices. It introduces threats and attacks and the many ways they can show up. It covers background of encryption algorithms and how they're used to safeguard data. It dives into the three As of information security: authentication, authorization, and accounting. Lastly, it also covers network security solutions, ranging from firewalls to Wifi encryption options. At the end of this course, students will understand: 1) how various encryption algorithms and techniques work as well as their benefits and limitations; 2) various authentication systems and types. 3) the difference between authentication and authorization; 4) how to evaluate potential risks and recommend ways to reduce risk; 5) best practices for securing a network; 6) how to help others to grasp security concepts and protect themselves.

SELECTION PROCEDURES



Selection Procedure:

a. *Alternative Selection Methods*

- i.** Sponsor will schedule an interview and evaluation session. All applicants who have met the minimum qualifications and have submitted the required documents will be notified of the date, time, place and/or method for the conduct of the interview. The recruiter/interviewer will record the questions asked and the general nature of the applicant's answers during this interview process. The sponsor's selecting official will evaluate each applicant interviewed on like factors taking into account the information on the application and required documents, as applicable using an Interview Summary Form.
- ii.** Upon completing all interviews and analyzing the applicants' qualifications the sponsor's selecting official will make a determination using the annotated Interview Summary Forms. Applicant(s) with the highest evaluation will be selected first. The selected applicant(s), depending on the number of vacancies offered by the advertised announcement, will be offered employment in order of evaluation and upon acceptance of employment will be placed in the apprenticeship program.
- iii.** Selected applicants must respond to the offer of employment within 48 hours of notice of selection. If applicant(s) do not respond within the period specified, the sponsor will move past their name to the next applicant in the pool. Applicants passed over will be contacted by the sponsor by email and/or phone to determine if the applicants are still interested. If no response is received in fifteen (15) working days from this notice, the applicant's name will be removed from the pool.
- iv.** After all offers of employment have been extended and accepted by the selectee(s), as applicable, the remaining applicants in the pool of eligibles will be notified of their non-selection under this vacancy announcement. The non-selection notice will also include instructions on how they can apply for any future openings.
- v.** Qualified applicants remaining in the pool of eligibles will be kept on file for a period of two (2) years, unless the applicant is removed from the pool by their own written request or following failure to respond to an offer of employment.
- vi.** During the two (2) year period, to update their status in the pool of eligibles, applicants who feel that their qualifications have improved since their original placement in the pool may submit evidence of such



additional experience and/or training by updating their candidate profile and request reevaluation or by simply submitting a new application for subsequent vacancy announcements.

- vii.** The sponsor may select apprentices from an eligibility pool of the workers already employed by the program sponsor or by the sponsor's established promotion policy. The sponsor adopting this method of selecting apprentices shall establish goals for the selection of minority and female apprentices, unless the sponsor concludes, in accordance with the provisions of 29 CFR §§ 30.4(d), (e), and (f) that it does not have deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the apprenticeship of journeyworker occupations represented by the program. Employer must attach an outline of their in-house selection process with their Employer Acceptance Agreement.

b. *Selection from pool of current employees*

The sponsor may select apprentices from an eligibility pool of the workers already employed by the program sponsor or by the sponsor's established promotion policy. The sponsor adopting this method of selecting apprentices shall establish goals for the selection of minority and female apprentices, unless the sponsor concludes, in accordance with the provisions of 29 CFR §§ 30.4(d), (e), and (f) that it does not have deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the apprenticeship of journeyworker occupations represented by the program. Employer must attach an outline of their in-house selection process with their Employer Acceptance Agreement.