The Learning Center

A1 – Computer Support Specialist- Desktop Support Technician

O-NET Code: 15-1151.00   RAPIDS Code: 2018HY
Hybrid Apprenticeship Program

✓ Form 5910 – Application for Approval On-the-Job
  Training & Apprenticeship

✓ Nevada State Apprenticeship Council Program
  Description

✓ Apprenticeship OJT and Related Technical
  Instruction (RTI) Information Check List

✓ NSAC Checklist

✓ Appendix A1 – Work Process Schedule & RTI Outline
FORM 5910

STATE OF NEVADA

Nevada State Apprenticeship Council

APPLICATION FOR APPROVAL
ON THE JOB TRAINING & APPRENTICESHIP

Program Name: The Learning Center, Inc.- Computer Support Specialist

Address: 2445 Fire Mesa, Suite 200A

City: Las Vegas

State/Zip: NV 89128

Telephone: (702) 320-8885

Contact Person: Linda Montgomery

Title: President

Type of Program: Hybrid

Sic Code:

EIN #: 88-0267407

Email Address: lmontgomery@tlclasvegas.com

Type of Action: (Check One)

A. Wage Increase
B. Revision of Standards
C. New Occupation
D. X New Program

Type of Program: (Check One)

A. Individual Union
B. Individual Non Union
C. Group Union
D. Group Non Union
E. If Union Bargaining Unit

Journey Workers (JW)

A. No. JW

B. No. of Employers

Pay Period (Circle One)

Weekly
Bi-Weekly
Semi Monthly

Pay Increases (Months)

3
6
12
Other

TRADE INFORMATION

Occupation (use separate form for each occupation) Term (OJT hours) RTI (Classroom hours) # Of Journey workers # Of Apprentices in Training Journey worker Hourly Rate Days per Week

Computer Support Specialist 2,000 - 2,400 480 10 5 $15.00 5

HOURLY APPRENTICE WAGES BY PERIOD (Excluding Benefits) Top Line Dollar Amounts Bottom Line Percentages

Occupation 1ST 2ND 3RD 4TH 5TH 6TH 7TH 8TH 9TH 10TH

Computer Support Specialist $ 12.00 $ 13.50 $ 15.00 $ $ $ $ $ $ $ 80 % 90 % 100 % % % % % %

Date

Signature of Program Coordinator

DO NOT WRITE BELOW THIS LINE

Approved:__________________________

Disapproved:_______________________

Secretary Director of Apprenticeship Date
Nevada State Apprenticeship Council Program Description

Date: __4/26/18__  Program Name: Computer Support Specialist-HY__

Status: X_ New Program           Revision (to Program #: _____________)

Sponsor’s Name:  The Learning Center, Inc. ____________________________

Address:  2445 Fire Mesa Ste 200A ____________________________

City: ___ Las Vegas _____  County: ___ Clark___ State: NV  Zip:  89128____

Sponsor’s Contact Name:  __Linda Montgomery, President ______________________

Telephone Number:  _(702) 320-8885__________________________  Extension:

FAX Number:  ___702-212-4040______________________________

E-MAIL: _lmontgomery@tlclasvegas.com__________________________

NAICS Code: _____611420________________ (www.naics.com/)

EIN Number: _____88-0267407________________

Program Type:   (1) X_ Individual Non-Joint (one company no union)
(2) ___ Individual Joint (one company with union)
(4) ___ Group Non-Joint (more than one company no union)
(3) ___ Group Joint (more than one company with union)

Name of Bargaining Agency / Union (if applicable): _______________________

CBA Waiver:  ___ Yes      ___ No

ATC: ___ Yes     X_ No

REMARKS:  ________________________________________________________

______________________________________________________________
Nevada State Apprenticeship Council Program Description

Sponsor’s Name: __The Learning Center, Inc._____________

OCCUPATION DATA (one page for each occupation)

Occupation /Trade Name: __Computer Support Specialist______________________

Occupation RAPIDS Code: ___2018HY_____ (REQUIRED)

Type: ___Time-based _____ Competency-based ___X_ Hybrid

Term Length (Hours): ___2000-2400_____ Probationary Length: ___500 hours____

Total Employers: ___1______

Total Journeyworker: ___10____

Total Anticipated Apprentices: ___5____

Minimum Apprentice Starting Wage: ___$12 per hour_______

Minimum Journeyworker Starting Wage: ___$15 per hour____

RELATED TECHNICAL INSTRUCTION

Instruction Method: ___X__Classroom ___X__Shop ___Online / Correspondence

Instruction Provider: ___Vocational Education ___ Community College ___X_Sponsor ___Other (Employer)

Wages Paid During RTI after Hours? ___Yes ___X_No

Hours Instruction Provided: ___During Work Hours ___X__During Non-Work Hours

Total Length of Instruction: ___480_____Hours

Instruction Provided by: ___X_Sponsor _____Other Source ___X_Both Sponsor & Other Source

Name/Address of RTI Provider(s): _______The Learning Center, Inc.________________________

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________
APPRENTICESHIP OJT AND RELATED TRAINING INSTRUCTION (RTI)
INFORMATION CHECK LIST

APPRENTICESHIP TITLE: Computer Support Specialist
CURRICULUM TITLE: Computer Support Specialist
DOT NUMBER: ONET- 15-1151.00
OJT HOURS: 2,000 - 2,400

144 Total Hours of Related Instruction Per Year

Type of Related Instruction:

_____ Correspondence
_____ Regular College Course
_____ Course Taught by Trade Instruction

X Outside Contract Instruction
X Other (Please explain in summary comments)
As determined by employer

Subjects to be Taught During Program:

1. Please see attachments: **
2. __________________________
3. __________________________
4. __________________________
5. __________________________
6. __________________________
7. __________________________
8. __________________________
9. __________________________
10. __________________________

SOURCE(S) OF TRAINING MATERIAL (Title and Publisher):
All coursework is authorized by the appropriate global credentialing body

Instruction Location:

X Apprenticeship Training Center
_____ College Campus
_____ Worksite After Hours
_____ Home
X Other (Please explain in summary comments)

Please Designate Length of Related Instruction Program

1-year
(Example: 3 Yrs., 4 Yrs.)

Submitted by: The Learning Center
RELATED TRAINING INSTRUCTION (RTI)
CHECK LIST

CURRICULUM CONTENT:
NO YES

1. Does the curriculum outline meet the required 144 hours minimum of related instruction per year?  
   ___  X  

2. Does the curriculum provide learning experience representing competencies expected of employees in the occupation represented by this program?  
   ___  X  

3. Are the course goals, objectives, and activities clearly stated and related directly to a current task analysis for this occupation?  
   ___  X  

4. Are the activities arranged in a logical sequence for maximum attainment of the required industrial skills?  
   ___  X  

5. Is there criteria for measuring student achievement?  
   ___  X  

6. Does the curriculum satisfy the requirements defined in the DOT?  
   ___  X  

State Supervisor of Trade & Industrial Education  4/7/8  APPROVED:  X  
Date  DISAPPROVED:  

SUMMARY COMMENTS:
### TLC Standards Placement

| Appendix A p. 2 | 2) **Term:** A term of apprenticeship of not less than 2,000 hours of work experience, consistent with training requirements as established by practice in the trade. **NRS 610.144 3 (b)**
| Appendix A p. 3 | 3) **Work Processes:** An outline of the processes in which the apprentice will receive supervised experience and training on the job, and the allocation of the approximate time to be spent in each major process. **NRS 610.144 3 (c)**
| Appendix A p. 6 | 4) **Related Instruction:** Provisions for organized, related and supplemental instruction in technical subjects (and the costs thereof) related to the trade with a minimum of 144 hours for each year of apprenticeship, given in a classroom or through trade, industrial or correspondence courses of equivalent value or other forms of study approved by the State Apprenticeship Council. **NRS 610.144 3 (d); NAC 610.433**
| Appendix A p. 2 | 5) **Wages:** A progressively increasing, reasonable and profitable schedule of wages to be paid to the apprentice consistent with the skills acquired, not less than that allowed by federal or state law or regulations or by a collective bargaining agreement. Employers shall pay a beginning wage for apprentices which is at least 35 percent of the rate for journeymen in the same trade, or Minimum and Reasonable and profitable wage for apprentice in construction industry. **NRS 610.144 3 (e); NAC 610.480, NAC 610.485**
| Appendix A p. 2 | 6) **Periodic Review and Evaluation:** Provisions for a periodic review and evaluation of the apprentice’s progress in performance on the job and related instruction and the maintenance of appropriate records of such progress. **NRS 610.144 3 (f)**
| Appendix A p. 2 | 7) **Ratio:** A numeric ratio of apprentices to journeymen consistent with proper supervision, training, safety, continuity of employment and applicable provisions in collective bargaining agreements, in language that is specific and clear as to its application in terms of job sites, workforces, departments or plants. **NRS 610.144 3 (g)**

**ALL DOCUMENTS HAVE BEEN CHECKED FOR SPELLING, FORMATTING, GRAMMAR, (INCLUDING TABLE OF CONTENTS), ETC.**
Appendix A1

WORK PROCESS SCHEDULE
AND
RELATED INSTRUCTION OUTLINE

COMPUTER SUPPORT SPECIALIST - DESKTOP SUPPORT TECHNICIAN

O*NET-SOC CODE: 15-1151.00  RAPIDS CODE: 2018HY

APPROVED BY
OFFICE OF WORKFORCE INNOVATION FOR THE NEW NEVADA AND THE NEVADA STATE APPRENTICESHIP COUNCIL

Erin Hasty, Nevada State Apprenticeship Director

REGISTRATION DATE: ________

REGISTRATION NUMBER: __________

DEVELOPED IN COOPERATION WITH THE
Appendix A1

WORK PROCESS SCHEDULE
COMPUTER SUPPORT SPECIALIST - DESKTOP SUPPORT TECHNICIAN
O*NET-SOC CODE: 15-1151.00 RAPIDS CODE: 2018HY

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 shall be defined by the attainment of all competencies of the position, which would be expected to between 2000 and 2400 hours of OJL, supplemented by the minimum required 480 hours of related instruction.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: 3 apprentice(s) to 1 journeyworker.

4. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages. Apprentices starting wage would be a minimum of $12.00 per hour. The minimum wage of a journeyworker is $15.00 per hour which will be paid at the completion of the apprenticeship. The minimum wage rate may be adjusted based on regional wage scales.

16-month (2400 hour) Term Example:

1

st
12 months = 80%
2

nd
12 months = 90%

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.

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

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

6. RELATED INSTRUCTION OUTLINE (See attached Related Instruction Outline)

The sponsor may modify the related instruction to meet local needs prior to submitting these Standards to the appropriate Registration Agency for approval.
Appendix A1

WORK PROCESS SCHEDULE
COMPUTER SUPPORT SPECIALIST - DESKTOP SUPPORT TECHNICIAN
O*NET-SOC CODE: 15-1151.00  RAPIDS CODE: 2018HY

The term of the occupation shall be defined by the attainment of all competencies, both technical and behavioral, of the position, which would be expected and approximated to occur between 2000 to 2400 hours of OJL, supplemented by a minimum of 480 hours of related technical instruction.

<table>
<thead>
<tr>
<th>Work Processes and Competencies</th>
<th>Approx. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Practices – Foundations</strong></td>
<td></td>
</tr>
<tr>
<td>1. Demonstrate a working understanding of the organization's structure, personnel rules, responsibilities and general understanding of work ethics, interpersonal communications and related policies. Understands and practices safety procedures and rules.</td>
<td>60 - 80</td>
</tr>
<tr>
<td>2. Demonstrate a working understanding of the goals, mission and vision</td>
<td></td>
</tr>
<tr>
<td>3. Demonstrate a working understanding of the organization's office tools such as copiers, fax machines etc. Create document using MS Word for management</td>
<td></td>
</tr>
<tr>
<td><strong>General Practices - Computer Basics</strong></td>
<td>720 - 900</td>
</tr>
<tr>
<td>1. Demonstrate a working knowledge of the components of a computer and perform basic troubleshooting on communication issues within a computer.</td>
<td></td>
</tr>
<tr>
<td>2. Identify the components of standard desktop personal computers. Install and configure computer components. Maintain and troubleshoot peripheral components. Install and configure operating systems.</td>
<td></td>
</tr>
<tr>
<td>3. Demonstrate a working knowledge of the hardware components of a computer and perform basic troubleshooting on hardware related issues</td>
<td></td>
</tr>
<tr>
<td>4. Install and configure system components. Troubleshoot system components.</td>
<td></td>
</tr>
<tr>
<td>5. Demonstrate a working knowledge of basic networking, to allow the flow of information between multiple computers</td>
<td></td>
</tr>
<tr>
<td>6. Manage, maintain, troubleshoot, install, operate and configure basic network infrastructure.</td>
<td></td>
</tr>
<tr>
<td><strong>General Practices - Security Basics</strong></td>
<td>240 - 300</td>
</tr>
<tr>
<td>1. Demonstrate knowledge of “best practices” in general network security</td>
<td></td>
</tr>
<tr>
<td>2. Implement secure network communications. Designate how to manage public key infrastructure and certificates.</td>
<td></td>
</tr>
<tr>
<td>3. Create a security awareness program in the organization which is used to communicate “best practices” for end users</td>
<td></td>
</tr>
<tr>
<td>4. Establish security best practices for creating and running web-based applications.</td>
<td></td>
</tr>
<tr>
<td><strong>General Practice - Client Operating System Basics</strong></td>
<td>320 - 380</td>
</tr>
<tr>
<td>1. Install and configure client operating systems for the organization.</td>
<td></td>
</tr>
</tbody>
</table>


3. Maintain and troubleshoot client operating systems for the organization.

4. Prepare to deploy Windows 10 business desktops. Assess and resolve application compatibility issues with Windows 10. Determine the most appropriate method to deploy Windows 10 based upon specific business requirements. Design a standard Windows 10 image by assessing and evaluating the business requirements.

<table>
<thead>
<tr>
<th>General Practice - Demonstrating Learned Competencies</th>
<th>660 - 740</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Utilize all of the skills taught during all of the GPs</td>
<td></td>
</tr>
<tr>
<td>2. Maintain and troubleshoot installations of Microsoft Windows. Identify personal computer security concepts. Identify network technologies. Install and manage network connections. Perform networking technologies design principles including adherence to wiring standard and use of testing tools. Design network specific security practices, disaster recovery procedures, data storage technology implementation procedures.</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL HOURS 2000 - 2400

The above work process is intended as a guide. It is not to be followed in any particular sequence, and it is understood that some adjustments may be necessary in the hours allotted for different work experience. In all cases, the apprentice is to receive sufficient experience to make him fully competent and use good workmanship in all work processes which are part of the trade. In addition, the apprentice shall be fully instructed in safety and OSHA requirements.
Apprenticeship Competencies – Behavioral

In addition to mastering all of the essential technical competencies, an apprentice must consistently demonstrate at an acceptable level the following behavioral competencies in order to complete the apprenticeship.

<table>
<thead>
<tr>
<th>Item #</th>
<th>Behavioral Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Participation in team discussions/meetings</td>
</tr>
<tr>
<td>2.</td>
<td>Focus in team discussions/meetings</td>
</tr>
<tr>
<td>3.</td>
<td>Focus during independent work</td>
</tr>
<tr>
<td>4.</td>
<td>Openness to new ideas and change</td>
</tr>
<tr>
<td>5.</td>
<td>Ability to deal with ambiguity by exploring, asking questions, etc.</td>
</tr>
<tr>
<td>6.</td>
<td>Knows when to ask for help</td>
</tr>
<tr>
<td>7.</td>
<td>Able to demonstrate effective group presentation skills</td>
</tr>
<tr>
<td>8.</td>
<td>Able to demonstrate effective one-on-one communication skills</td>
</tr>
<tr>
<td>9.</td>
<td>Maintains an acceptable attendance record</td>
</tr>
<tr>
<td>10.</td>
<td>Reports to work on time</td>
</tr>
<tr>
<td>11.</td>
<td>Completes assigned tasks on time</td>
</tr>
<tr>
<td>12.</td>
<td>Uses appropriate language</td>
</tr>
<tr>
<td>13.</td>
<td>Demonstrates respect for patients, co-workers and supervisors</td>
</tr>
<tr>
<td>14.</td>
<td>Demonstrates trust, honesty and integrity</td>
</tr>
<tr>
<td>15.</td>
<td>Requests and performs work assignments without prompting</td>
</tr>
<tr>
<td>16.</td>
<td>Appropriately cares for personal dress, grooming and hygiene</td>
</tr>
<tr>
<td>17.</td>
<td>Maintains a positive attitude</td>
</tr>
<tr>
<td>18.</td>
<td>Cooperates with and assists co-workers</td>
</tr>
<tr>
<td>19.</td>
<td>Follows instructions/directions</td>
</tr>
<tr>
<td>20.</td>
<td>Able to work under supervision</td>
</tr>
<tr>
<td>21.</td>
<td>Able to accept constructive feedback and criticism</td>
</tr>
<tr>
<td>22.</td>
<td>Able to follow safety rules</td>
</tr>
<tr>
<td>23.</td>
<td>Able to take care of equipment and work place</td>
</tr>
<tr>
<td>24.</td>
<td>Able to keep work area neat and clean</td>
</tr>
<tr>
<td>25.</td>
<td>Able to meet supervisor's work standards</td>
</tr>
<tr>
<td>26.</td>
<td>Able to not let personal life interfere with work</td>
</tr>
<tr>
<td>27.</td>
<td>Adheres to work policies/rules/regulations</td>
</tr>
</tbody>
</table>
## Appendix A1

### RELATED INSTRUCTION OUTLINE

**COMPUTER SUPPORT SPECIALIST - DESKTOP SUPPORT TECHNICIAN**  
O*NET-SOC CODE: 15-1151.00  RAPIDS CODE: 2018HY

The related instruction has been developed in cooperation with employer-partners as part of the apprenticeship. The following is a set of courses to be delivered by the Learning Center and/or as determined by the employer-partner.

**Related instruction** - This instruction shall include, but not be limited to, at least 480 hours during the apprenticeship, as described below:

<table>
<thead>
<tr>
<th>COURSE TOPIC</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Apprenticeship Orientation Session</td>
<td>4</td>
</tr>
<tr>
<td>Intro to Computers</td>
<td>36</td>
</tr>
<tr>
<td>CompTIA A+ Hardware</td>
<td>60</td>
</tr>
<tr>
<td>Certification for CompTIA A+ Hardware</td>
<td>16</td>
</tr>
<tr>
<td>CompTIA A+ Software</td>
<td>60</td>
</tr>
<tr>
<td>Certification for CompTIA A+ Software</td>
<td>16</td>
</tr>
<tr>
<td>CompTIA Network +</td>
<td>80</td>
</tr>
<tr>
<td>Certification for CompTIA Network +</td>
<td>16</td>
</tr>
<tr>
<td>CompTIA Security +</td>
<td>80</td>
</tr>
<tr>
<td>Certification for CompTIA Security +</td>
<td>16</td>
</tr>
<tr>
<td>Installing and Configuring Windows 10 Client</td>
<td>80</td>
</tr>
<tr>
<td>Certification for Microsoft Windows 10</td>
<td>16</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>480</strong></td>
</tr>
</tbody>
</table>

Apprentices completing all of the above courses will earn a certification in CompTIA Network+, CompTIA A+ Hardware, and CompTIA A+ Software. They will also earn a certification Security+ and Microsoft Windows 10 Technician.

**Course Descriptions:**

**Orientation Session (4 hours)**  
In this course students will be presented with an introduction to the program, review of the program syllabus, and meet the TEAM that will work with them over the course of their classroom hours. The instructional and administrative staff will cover policies and procedures of the school environment and expectations.

**Intro to Computers (36 hours)**  
This course teaches fundamentals about personal computers as well as hands-on exposure to current software packages. If you are about to buy a personal computer, take this class! This course also teaches an introduction to the Internet. It includes fundamentals about
accessing the World Wide Web (www), finding web sites, understanding browsers, how to find an ISP, creating an e-mail address, and much more.

**CompTIA A+ Hardware (60 hours)**
In this A+ class students learn the hardware elements of the personal computer. Their studies are intended to give them a good knowledge about the PC and the skills to work as a repair technician. This class is for the person new to PC technology with no knowledge of the industry. Its slow in-depth pace brings the student from zero knowledge and skills to the ability to perform as a PC hardware technician. This course is designed for the beginner/novice and prepares the student for the CompTIA A+ 901 certification exam.

Students Learn:
- Prepare for the latest A+ 901 certification exam
- Configure common features for Android and Apple iOS mobile operating systems
- PC components
- Preventative maintenance
- Communicate with customers in a professional manner
- Computer hardware and peripherals
- Network connections
- Laptop and portable computing device components

**CompTIA A+ - Software (Software) (60 hours)**
In this A+ class students learn the software elements of the personal computer. Their studies are intended to give them a good knowledge about the PC and the skills to work as a repair technician. This class is for the person new to PC technology with no knowledge of the industry. Its slow in-depth pace brings the student from zero knowledge and skills to the ability to perform as a PC hardware technician. This course is designed for the beginner/novice and prepares the student for the CompTIA A+ 902 certification exam.

Students Learn:
- Prepare for the latest A+ 902 certification exam
- Install and configure PC operating systems
- Configure common features for Android and Apple iOS mobile operating systems
- Operating system technologies
- Communicate with customers in a professional manner

**CompTIA Network+ (80 hours)**
Earning CompTIA's Network+ certification increases your value in the marketplace, providing proof of your knowledge, skills, and ability to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Our Network+ Novice course points you in the right direction, allowing you to demonstrate the concepts covered on the Network+ exam in a real-world, hands-on environment. You will work through several practice exams to reinforce your knowledge. You will gain essential networking skills in labs that feature networking equipment from Cisco, Linksys, Netgear, ZyXel, and others. As an added bonus you may access the practice exam on your own computer. Students must have completed, within the past 12 months, a CompTIA A+ course or have recent relevant
pc repair experience. This course is designed for the beginner/novice and prepares the student for the CompTIA Network+ certification exam.

Students learn:
- Prepare for the CompTIA Network+ certification exam
- Basic network theory concepts
- Major communications methods
- Network media and hardware components
- Components of a TCP/IP network implementation
- TCP/IP addressing and data delivery methods
- Major services deployed on TCP/IP networks
- Components of a LAN implementation
- Infrastructure of a WAN implementation
- Components of remote network implementation
- Major issues and methods to secure systems on a network
- Major issues and technologies in network security
- Network security threats and attacks
- Tools, methods, and techniques used in managing a network
- Wiring termination including building a variety of network cables
- Troubleshoot network issues

**CompTIA Security + (80 hours)**
In this course, students will learn to proactively implement sound security protocols to mitigate security risks, quickly respond to security issues, retroactively identify where security breaches may have occurred, how to mitigate network threats and how to design a network, on-site or in the cloud, with security in mind. Students must have completed, within the past 12 months, a Network+ course or have recent relevant networking and/or network security experience. This course is designed for the beginner/novice and prepares the student for the CompTIA Security+ certification exam.

Students will learn:
- Cryptography
- Authentication
- User and role-based security
- Peripheral security
- Public key infrastructure
- Application and messaging security
- Ports and protocols
- Wireless security
- Remote access security
- Auditing, logging, and monitoring
- Vulnerability testing and monitoring
- Organizational security
- Business continuity
- CompTIA Security+ objectives map
• CompTIA Security+ acronyms

**Microsoft 20698: Installing and Configuring Windows 10 Client (80 hours)**
This course provides IT professionals with the knowledge and skills required to install and configure Windows 10 desktops in a Windows Server small to medium-sized AD DS domain environment. These skills include learning how to install and customize Windows 10 operating systems and apps, configure local and remote network connectivity, and configure local and online storage. Students also will learn how to configure security in addition to how to maintain, update, and recover Windows 10.
This course is intended for IT professionals who administer and support Windows 10 desktops and devices in small to medium-sized networks.

The networks with which these professionals typically work are configured as AD DS domain-based environments with managed access to the Internet and cloud services.

**Certification for CompTIA A+ Hardware (16 hours)**
In this course, students will use test preparation tools to prepare for taking the A+ 901 certification exam.

**Certification for CompTIA A+ Software (16 hours)**
In this course, students will use test preparation tools to prepare for taking the A+ 902 certification exam.

**Certification for CompTIA Network + (16 hours)**
In this course, students will use test preparation tools to prepare for taking the Network+ certification exam.

**Certification for CompTIA Security + (16 hours)**
In this course, students will use test preparation tools to prepare for taking the Security+ certification exam.

**Certification for Microsoft Windows 10 (16 hours)**
In this course, students will use test preparation tools to prepare for taking the Security+ certification exam.
<table>
<thead>
<tr>
<th>Work Process Competencies</th>
<th>Demonstrated Tasks Performed</th>
<th>12-month Rating (90%**)</th>
<th>15-month Rating* (100%)</th>
</tr>
</thead>
</table>
| A. General Practices - Foundations | 1. Demonstrate a working understanding of the organization’s structure, personnel rules, responsibilities and general understanding of work ethics, interpersonal communications and related policies.  
2. Understands and practices safety procedures and rules.  
3. Demonstrate a working understanding of the goals, mission and vision  
4. Demonstrate a working understanding of the organization’s office tools such as copiers, fax machines etc.  
5. Create document using MS Word for management |                     |                           |
| B. General Practices - Computer Basics | 1. Demonstrate a working knowledge of the components of a computer and perform basic troubleshooting on communication issues within a computer.  
2. Identify the components of standard desktop personal computers.  
3. Install and configure computer components. Maintain and troubleshoot peripheral components.  
4. Install and configure operating systems.  
5. Demonstrate a working knowledge of the hardware components of a computer and perform basic troubleshooting on hardware related issues  
6. Install and configure system components.  
7. Troubleshoot system components.  
8. Demonstrate a working knowledge of basic networking, to allow the flow of information between multiple computers  
9. Manage, maintain, troubleshoot, install, operate and configure basic network infrastructure. |                     |                           |
| C. General Practices - Security Basics | 1. Demonstrate knowledge of "best practices" in general network security  
2. Implement secure network communications. Designate how to manage public key infrastructure and certificates.  
3. Create a security awareness program in the organization which is used to communicate "best practices" for end users  
4. Establish security best practices for creating and running web-based applications. |                     |                           |
### D. General Practice - Client Operating System Basics

1. Install and configure client operating systems for the organization.
2. Configure Windows Firewall.
3. Configure Windows Defender.
4. Set indexing locations and modify advanced options.
5. Create a library and set security permissions.
6. Create and deploy a search connector.
7. Maintain and troubleshoot client operating systems for the organization.
8. Prepare to deploy Windows 10 business desktops.
10. Determine the most appropriate method to deploy Windows 10 based upon specific business requirements.
11. Design a standard Windows 10 image by assessing and evaluating the business requirements.

### E. General Practice - Demonstrating Learned Competencies

1. Utilize all of the skills taught during all of the GPs.
2. Maintain and troubleshoot installations of Microsoft Windows.
3. Identify personal computer security concepts.
4. Identify network technologies.
5. Install and manage network connections.
6. Perform networking technologies design principles including adherence to wiring standard and use of testing tools.
7. Design network specific security practices, disaster recovery procedures, data storage technology implementation procedures.
8. Create procedures to enforce organizational security policies.
9. Monitor the security infrastructure and manage security incidents.
10. Use the built-in diagnostics tools to diagnose and resolve system problems.
12. Configure the Action Center and view messages.
13. Configure Device Manager and control device installation.
15. Configure Backup and Restore option.
16. Configure the Sync Center.
17. Deploy Windows 10 by using WAIK.
18. Deploy Windows 10 by using WDS.
19. Deploy Windows 10 by using Lite Touch Installation.
21. Migrate user state by using Windows Easy Transfer and User State Migration Tool 4.0.
22. Design, configure, and manage the Windows 10 client environment.
23. Plan and deploy applications and updates to Windows 10 client computers.

* Full-competency requires score of 3.0 or higher on each work process
** Denotes approximate percentage of time in apprenticeship

<table>
<thead>
<tr>
<th>Score Obtained (Average)</th>
<th>Increase Paid Score Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Rating System</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Exceeds All Expectations</td>
<td>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.</td>
</tr>
<tr>
<td>Meets &amp; Exceeds Some Expectations</td>
<td>Employee not only meets all expectations in a fully satisfactory way but exceeds some of the objectives.</td>
</tr>
<tr>
<td>Meets Expectations</td>
<td>Consistently meets the performance standards established for time in position. Handles routine tasks &amp; some unexpected situation with the usual amount of supervision. Can continue to develop with coaching, advanced training or more experience</td>
</tr>
<tr>
<td>Meets Some Expectations</td>
<td>Employee 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.</td>
</tr>
<tr>
<td>Does Not Meet / Meets Some Expectations</td>
<td>Does not consistently meet performance standards established for time in position. Requires basic training, coaching or experience to improve performance and become consistent. Additional follow up will be necessary.</td>
</tr>
<tr>
<td>Does Not Meet Expectations</td>
<td>Clearly and repeatedly does not meet the performance standards established for time in position. Additional follow up and specific suggestions for improvement mandatory.</td>
</tr>
</tbody>
</table>