



# Broadband Technician

Youth Apprenticeship

## BROADBAND TECHNICIAN

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The Broadband Technician assists with on-site installations, troubleshooting, repairs, and maintenance of telecommunications products and equipment. Technicians have direct, face-to-face contact with customers. Services include, but are not limited to, Telephony, Video/CATV/DBS, Internet, Wi-Fi, and/or high-speed networks.

**Length of Apprenticeship:** One year

## COMPETENCIES

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Youth apprentices must complete a **total of 9** competencies per year. **Eight** must be from the list below. If necessary, employers can substitute up to **1** competency per year with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Note that where necessary, skills can be simulated.

Competencies
<ol style="list-style-type: none"><li>1. Evaluate work order</li><li>2. Install and configure customer infrastructure</li><li>3. Verify completion of installation</li><li>4. Evaluate repair work order</li><li>5. Diagnose service problem</li><li>6. Resolve service problem</li><li>7. Install or replace ONT UPS</li><li>8. Educate customers on product use</li><li>9. Maintain information and system security</li></ol>

## REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES

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Some of the related instruction courses can bridge into the following registered apprenticeship:

- Broadband Service Technician

## POST-SECONDARY PATHWAY OPPORTUNITIES

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There are several post-secondary pathway opportunities in this area. Following is partial list.

- Broadband Internet Technician Technical Diploma
- Broadband Technologies Technical Diploma



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## ON-THE-JOB LEARNING PERFORMANCE STANDARDS GUIDE

### YOUTH APPRENTICE INFORMATION

<b>Youth Apprentice Name</b>	
<b>YA Coordinator</b>	<b>YA Consortium</b>
<b>School District</b>	<b>High School Graduation Date</b>

### REQUIREMENTS

Youth apprentices must complete ALL the items listed below. Check completed areas.

- Year 1 Competency checklist
- Employability Skills checklist (in this job book) or the DPI Employability Skills Certificate
- Related instruction equal to 1 high school credit or at least 3 college credits
- Minimum of 450 work hours

### HOURS

Record the hours the Youth Apprentice worked.

Total Hours Employed	Company Name	Telephone Number

## COMPETENCIES

Youth apprentices must complete a **total of 9** competencies per year. **Eight** must be from the list below. If necessary, employers can substitute up to **1** competency per year with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Note that where necessary, skills can be simulated.

### Rating Scale

3: Exceeds entry level criteria | Requires minimal supervision | Consistently displays this behavior

2: Meets entry level criteria | Requires some supervision | Often displays this behavior

1: Needs improvement | Requires much assistance and supervision | Rarely displays behavior

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
<p><b>1. Evaluate work order</b></p> <ul style="list-style-type: none"> <li>• identify the customer</li> <li>• identify services ordered</li> <li>• verify the location of the facility</li> <li>• review equipment needs</li> <li>• follow company procedure regarding installation</li> <li>• read network map</li> <li>• get connectivity to location</li> <li>• install cross connect</li> <li>• assist splicing customer facility</li> <li>• clean fiber optic connectors</li> <li>• install demarcation point (DMARC)</li> <li>• install a Universal Power Supply (UPS)</li> <li>• test connectivity to the premise</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>2. Install and configure Customer Infrastructure</b></p> <ul style="list-style-type: none"> <li>• install jack and wiring</li> <li>• certifies inside wiring</li> <li>• install Wi-Fi gateway routers and modems</li> <li>• optimizes Wi-Fi location</li> <li>• install ethernet switches</li> <li>• install VoIP devices</li> <li>• install Set Top Boxes (STB) and remotes</li> <li>• install Wi-Fi extenders</li> <li>• install mesh network</li> <li>• install ethernet overpower, MOCA, or HPNA</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
<b>3. Verify completion of installation</b> <ul style="list-style-type: none"> <li>hook up customer equipment</li> <li>test broadband, TV, voice services</li> <li>install IoT (Internet of Things) devices per company procedures</li> <li>verify services are working</li> <li>educate customer on products installed</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Evaluate repair work order</b> <ul style="list-style-type: none"> <li>identify the customer</li> <li>identify the issue</li> <li>verify the location of the facility</li> <li>review equipment needs</li> <li>follow company procedure regarding trouble shooting</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Diagnose service problem</b> <ul style="list-style-type: none"> <li>identify proper tests equipment needed to perform tests</li> <li>perform the tests</li> <li>assess tests result</li> <li>determine location of problem (inside/outside)</li> <li>communicate with customer if needed</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Resolve Service Problem</b> <ul style="list-style-type: none"> <li>repair or replace equipment</li> <li>repair or replace facilities</li> <li>optimizes network configuration wired and wireless</li> <li>confirm service is operating and meets customer satisfaction</li> <li>communicate resolution to customer</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Install or replace ONT UPS</b> <ul style="list-style-type: none"> <li>demonstrate proper installation</li> <li>demonstrate proper replacement</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Educate customers on product use</b> <ul style="list-style-type: none"> <li>demonstrate products to customers if needed</li> <li>refer to documentation or company literature</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Maintain information and system security</b> <ul style="list-style-type: none"> <li>identify the impact of sensitive data exposure</li> <li>use virus and malware protection tool</li> <li>use strong passwords</li> <li>monitor security of company and personal data</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competency and Rating Criteria	Minimum Rating of 2 for EACH Check Rating		
	1	2	3
<b>Competency Substitute</b> (if you replaced a competency above, note the competency and rating)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>			

**RELATED INSTRUCTION**

Indicate which related instruction courses the youth apprentice completed:

Course Title	Credits	Location